



Master Builders Solutions Product Catalog



Master Builders Solutions

Under the global umbrella brand **Master Builders Solutions**, we offer advanced chemical solutions for the construction, maintenance, repair and renovation of structures. The brand is built on more than 100 years of experience in the construction industry. Our comprehensive portfolio encompasses concrete admixtures, cement additives, chemical solutions for underground construction, waterproofing systems, sealants, concrete repair & protection systems, performance grouts, tile fixing and

performance flooring systems. To solve our customers' specific construction challenges from conception through to completion of a project, we draw on our specialist knowhow, regional expertise and the experience gained in countless constructions projects worldwide. We leverage global technologies and our in-depth knowledge of local building needs to develop innovations that help make our customers more successful and drive sustainable construction. We operate production sites and sales offices in more than 60 countries.

Our comprehensive portfolio

- Concrete admixtures
- Cement additives
- Underground construction
- Waterproofing systems
- Sealants
- Concrete repair & protection systems
- Performance grouts
- Performance flooring systems
- Tile fixing





Highlights from Master Builders Solutions

- » Experience **more than a century**
- » More than **30.000** customers worldwide
- » More than **6.400** experts who support construction projects **worldwide**
- » More than **140** manufacturing facilities in **60** countries
- » Taking customer orders and dispatching them in **every 5 seconds**
in 5 continents
- » **Everyday 7300** customers whose problems are solved





Group Names According to Application

APPLICATION	Floors	Protection	Grouts	Tiles	Waterproof./ Sealants	Cemment Additives	UGC
	Master Top	Master Protect	Master Flow	Master Tile	Master Seal	Master Cem	Master Roc
	Ucrete						



Group Names According to Function

FUNCTION	Color	Surface Finishing	Form Release	Air Entraining	Durability	Strenhth Reinforcing	
	Master Color	Master Finish	Master Finish	Master Air	Master Life	Master Fiber	
	Water Reppeling	Repair/Other	Injecting	Strengthening	Curing	Accelerating	
	Master Pel	Master Emaco	Master Inject	Master Brace	Master Kure	Master Set (AC)	
	Retarding	Strength Accelerating	Water Reducing	Dry Cast Plasticizer	Lihgtweight Concrete	Rheology Controlling	Slump Retaining
	Master Set (RT)	Master X-Seed	MasterPozzolith MasterPolyheed MasterRheobuild MasterGlenium	Master Cast	Master Cell	Master Matrix	Master Sure



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Construction Systems



Tile Fixing Systems

TILE ADHESIVES SYSTEMS PRODUCT SUGGESTION TABLE

	Products	MasterTile® 14	MasterTile® 15	MasterTile® FLX 20	MasterTile® FLX 20 RC	MasterTile® FLX 22	MasterTile® FLX 24	MasterTile® FLX 29	MasterTile® FLX 426	MasterTile® P 300	MasterTile® P 300 RC	MasterTile® P 302	MasterTile® P 303	MasterTile® PAS 101*	MasterTile® WP 620	MasterTile® WP 630	MasterTile® WP 665	MasterTile® WP 666	MasterTile® WP 667	MasterTile® WP 668	MasterTile® 700	MasterTile® FLX 555	MasterTile® JF 560	MasterTile® JF 565
WATER STRUCTURES	Drinking Water			•	•	•	•	•						•	•			•	•				•	
	Soft Water			•	•	•	•							•	•				•					
	Domestic Waste Water															•				•				
	Salt Water			•	•	•	•							•						•				
	Swimming Pool			•	•	•	•	•						•		•			•	•	•	•	•	•
DIFFERENT APPLICATION AREAS	WC,Bathroom and Wetrooms	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•	•	•
	Balcony			•					•							•	•	•						
	Hammam and Sauna			•	•	•	•	•						•	•	•	•	•	•	•	•	•	•	•
	Walkable Terrace			•	•	•	•	•						•		•				•				
	Parking Garage	•	•	•	•	•	•	•											•					
	Decorative Exterior Coverings			•	•	•	•													•				
	Walking Ways and Garden Coverings			•				•														•		
	Industrial Facilities			•	•	•	•	•												•				
	Shopping Malls			•	•	•	•	•			•									•	•	•	•	•
	Thermal Pools			•	•	•	•	•						•		•				•	•	•	•	•
	Ceramic on Ceramic			•	•	•	•	•														•		
	Plasterboard Surface (Insulated)					•	•	•			•	•	•					•						
	Plasterboard Surfaces(not Insulated*)					•	•	•	•	•	•	•	•					•						
	Raw Concrete Surfaces					•	•	•	•		•							•						
	Wooden Surfaces (OSB/MDF*)					•	•	•	•	•	•	•	•	•		•	•							
	Concrete Chipboards*					•	•	•								•								
	PVC Surfaces*						•				•													
	SURFACES TYPES	Cerammic and Metal*					•	•												•				
		Gross Concrete Surfaces									•	•												
		Wooden Surfaces (OSB/MDF*)							•	•	•	•	•	•						•				
Plasterboard Surfaces								•	•				•	•					•					
Metal Surfaces											•													
Surface Cleaning																								

For more information consult to Master Builders Solutions Yapı Kimyasalları San. ve Tic. Ltd. Şti. Technical Service



MasterTile® 14

(Formerly known as SeryapHarci®132)

Description Of Product

MasterTile® 14, is a cement based highly stable adhesive used in adhesion of ceramics and marbles.

Complies with the EN 12004-C1T class.

C1 = Normally hardening cement based adhesive
T= With reduced sliding

Fields Of Application

- In inner and outer areas for vertical and horizontal applications.
- In the adhesion of tiles, ceramics, marbles, decorative tiles or press bricks, and cottos to cement based surfaces.

Features And Benefits

- Easy to prepare and apply
- Long process time
- No sliding in vertical applications
- No slump.
- High adhesion property

Technical Data

Structure of the Material	Granulometric mineral sealants, synthetic additives, and special cement	
Color	Grey - White	
Tensile Adhesion Strength	≥0,50 N/mm ² (28 days)	
Application Thickness	Min. 4mm Maks. 15 mm	
Joint Sealant Period	24 hours	
Application Ground Temperature	+5°C + 25°C	
Service Temperature	-20°C + 80°C	
Maturity Period	3-5 minutes	
Usage Period	2 hours	
Period of Open Waiting	20 minutes	
Slide (mm)	None	
Wetting Ability	Min. 90%	
Time to Wait Before Walking on It	24 hours	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.

Packaging

25 kg polyethylene reinforced kraft bag

Coverage

1.33 kg/m² for a thickness of 1 mm adhesive

MasterTile® 14	Ceramic Notched Trowel Dimensions and Coverage (kg/m ²)	
	8 mm	10 mm
25 kg	5,31	6,64

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.



MasterTile® 15

(Formerly known as SeryapHarcı®130)

Description Of Product

MasterTile® 15, is a cement based highly stable adhesive used in adhesion of tiles, ceramics, and marbles.

Complies with the EN 12004-1 - C1TE class.

C1= Normally hardening cement based adhesive

T= With reduced sliding

E= Extended open time

Fields Of Application

- In inner and outer areas for vertical and horizontal applications.
- In the adhesion of tiles, ceramics, and marbles in bathrooms, kitchens, and corridors.

Features And Benefits

- Easy to prepare and apply
- Long process time
- No sliding in vertical applications. High adhesion property

Technical Data

Structure of the Material	Mineral sealants, synthetic additives, and special cement	
Color	Grey - White	
Tensile Adhesion Strength	≥0,50 N/mm ² (28 days)	
Application Thickness	Min. 3mm Maks. 6 mm	
Joint Sealant Period	24 hours	
Application Ground Temperature	+5°C + 25°C	
Service Temperature	-20°C + 80°C	
Maturity Period	3-5 minutes	
Usage Period	2 hours	
Period of Open Waiting	30 minutes	
Slide (mm)	None	
Wetting Ability	Min. %90	
Time to Wait Before Walking on It	24 hours	WK

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.

Packaging

25 kg polyethylene reinforced kraft bag

Coverage

1.27 kg/m² for a thickness of 1 mm adhesive

MasterTile® 15	Ceramic Notched Trowel Dimensions and Coverage (kg/m ²)		
	6 mm	8 mm	10 mm
25 kg	3,80	5,07	6,34

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.



MasterTile® FLX 20

Description Of Product

MasterTile® 20, is a cement based easily flowing and set retarding highly stable and high performance flexible adhesive used in adhesion of ceramics, granites, marbles, and natural stones.

Consistent with the TS EN 12004 - C2 class.

C2 = Cement based adhesive with improved additional properties

Fields Of Application

- In inner and outer areas for horizontal applications.
- In the application of ceramics, granite ceramics, big sized flagstones, cottos, base bricks, and smooth and rough surfaces of natural stone plates.
- In underfloor heating surfaces and industrial surfaces.
- In balconies, terraces, and wet volumes.
- In repairs, adhesion of ceramic on to ceramic.

Features And Benefits

- Easy to prepare and apply.
- Reduces application time, since there is no need for adhesive mortar on the back surface of the plates.
- **MasterTile® FLX 20**, can be rapidly and easily

applied to the surface with reed dent because of its flowable consistency.

- Long process time. High adhesion strength.
- Resistant to freezing - thawing cycle. Resistant against tensions and vibrations rooting from temperature differences.

Packaging

20 kg polyethylene reinforced kraft bag.

Coverage

MasterTile® FLX 20	Density of Mixture (kg/liter)	1mm / m² Coverage (kg)	Mixture Water Amount (liter)	Ceramic Notched Trowel Dimensions and Coverage (kg/m²)	
				8 mm	10 mm
20 kg	1,75	1,42	~4,60	5,69	7,11

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.

Technical Data

Structure of the Material	Mineral sealants, synthetic additives, powder polymer and special cement	
Color	Grey	
Tensile Adhesion Strength	≥ 1,00 N/mm²	
Application Thickness	Min. 4 mm Maks. 15 mm	
Joint Sealant Period	12 hours	
Application Ground Temperature	+5°C +25°C	
Service Temperature	-40°C +80°C	
Maturity Period	3 - 5 minutes	
Usage Period	2 hours	
Period of Open Waiting	20 minutes	
Wetting Ability	Min. 98%	
Time to Wait Before Walking on It	12 hours	
Time to Wait Before Opening to Traffic	48 hours	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterTile® FLX 20 RC

(Formerly known as Polyflott® Rapid)

Description Of Product

MasterTile® FLX 20 RC, is a cement based easily flowing and set retarding highly stable and high performance flexible adhesive used in adhesion of ceramics, granites, marbles, and natural stones.

Consistent with the EN 12004 - C2F class

C2= Cement based adhesive with improved additional properties
F= Rapidly hardening cement based adhesive

Fields Of Application

- In inner and outer areas for only horizontal applications
- In the application of ceramics, granite ceramics, big sized flagstones, cottos, base bricks, and smooth and rough surfaces of natural stone plates
- In underfloor heating surfaces and industrial surfaces,
- In balconies, terraces, and wet volumes,
- In repairs, adhesion of ceramic on to ceramic,

Features And Benefits

- Easy to prepare and apply.
- Quick set.
- Reduces application time, since there is no need for adhesive mortar on the back surface of the plates.

- **MasterTile® FLX 20 RC** can be rapidly and easily applied to the surface with reed dent because of its flowable consistency.
- Long process time. High adhesion strength.
- Resistant to freezing-thawing cycle. Resistant against tensions and vibrations rooting from temperature differences.

Packaging

20 kg polyethylene reinforced kraft bag.
Resistant to freezing-thawing cycle. Resistant against tensions and vibrations rooting from temperature differences.

Coverage

1.58 kg/m² for a thickness of 1 mm adhesive.

MasterTile® FLX 20 RC	Ceramic Notched Trowel Dimensions and Coverage (kg/m ²)	
	8 mm	10 mm
20 kg	6,33	7,92

Shelf Life

6 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.

Technical Data

Structure of the Material	Mineral sealants, synthetic additives, powder polymer and special cement	
Color	Grey	
Tensile Adhesion Strength	≥1,00 N/mm ²	
Application Thickness	Min. 4mm Maks. 15 mm	
Joint Sealant Period	3 hours	
Application Ground Temperature	+5°C +25°C	WK
Service Temperature	-30°C +80°C	
Maturity Period	3 minutes	
Usage Period	50 minutes	
Period of Open Waiting	10 minutes	
Wetting Ability	98%	
Time to Wait Before Walking on It	3 hours	
Time to Wait Before Opening to Traffic	24 hours	



MasterTile® FLX 22

Description Of Product

MasterTile® FLX 22, is a cement based highly stable high performance adhesive used in adhesion of ceramics, granites, marbles, natural stones, glass mosaics, and ceramics.

Complies with the EN 12004-C2T class.

C2= Cement based adhesive with improved additional properties
T= With reduced sliding

Fields Of Application

- Indoor and outdoor areas for vertical and horizontal applications,
- In the adhesion of ceramics, granites, marbles and natural stones to cement based surfaces exposed to temperature differences,
- In the wall and floor tiles of cold storage houses,
- In ceramic and granite applications and repairs of building exteriors, in adhesion of ceramic on to ceramic.

Features And Benefits

- Easy to prepare and apply.
- Long process time.

- No sliding in vertical applications.
- Resistant to freezing-thawing cycle.
- Resistant against tensions and vibrations rooting from temperature differences.

Packaging

25 kg polyethylene reinforced kraft bag

Coverage

1.33 kg/m² for a thickness of 1 mm adhesive

MasterTile® FLX 22	Ceramic Notched Trowel Dimensions and Coverage (kg/m ²)		
	6 mm	8 mm	10 mm
25 kg	3,99	5,32	6,65

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.

Technical Data

Material Base	Mineral fillers, synthetic additives powder polymer and special cement	
Color	Grey - White	
Bonding Strength	≥1,00 N/mm ² (28 days)	
Application Thickness	24 hours	
Joint Filler Period	min. 3 mm - max 8 mm	
Working Temperature	+5°C +25°C	
Temperature Resistance	-40°C +80°C	WK
Maturity Period	3-5 minutes	
Usage Period	2 Hours	
Open Time	20 minutes	
Sagging (mm)	None	
Wetting Ability	Min. %90	
Time to Wait Before Walking on it	24 hours	
Time to Wait Before Opening to Traffic	3 days	



MasterTile® FLX 24

(Formerly known as Fleksmörtel®)

Description Of Product

MasterTile® FLX 24, is a cement based polymer modified highly stable high performance flexible adhesive used in adhesion of ceramics, granites, marbles, natural stones, glass mosaics, and press bricks.

Complies with the EN 12004-1 -C2TES1 class

C2= Cement based adhesive with improved additional properties

T= With reduced sliding

E= Extendent open time

S1= Deformable

Fields Of Application

- In inner and outer areas for vertical and horizontal applications.,
- In the adhesion of ceramics, granites, marbles, natural stones, glass mosaics, and press bricks to cement based surfaces exposed to temperature differences,
- In the adhesion of ceramics, granites, marbles, natural stones, and glass mosaics on surfaces effected from temperature differences such as; plasterboard, gypsum-plaster, heat insulation sheets, gas concrete, after primering with **MasterTile® P 300 RC**,
- In wet volumes like swimming pools, water tanks, bathrooms, etc. In underfloor heating surfaces, heated pools, thermal pools, swimming pools that are not emptied in winters. In the wall and floor tiles of cold

storage houses. In ceramic and granite applications and repairs of building exteriors, in adhesion of ceramic on to ceramic.

Features And Benefits

- Easy to prepare and apply.
- Long process time. (30 minutes)
- No sliding in vertical applications.
- Resistant to freezing-thawing cycle. Resistant against tensions and vibrations rooting from temperature differences.

Packaging

25 kg polyethylene reinforced kraft bag

Coverage

1.23 kg/m² for a thickness of 1 mm adhesive

MasterTile® FLX 24	Ceramic Notched Trowel Dimensions and Coverage (kg/m ²)		
	6 mm	8 mm	10 mm
25 kg	3,68	4,91	6,13

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.

Technical Data

Structure of the Meterial	Mineral sealants, synthetic additives, powder polymer and special cement	
Color	Grey - White	
Tensile Adhesion Strength	≥1,00 N/mm ² (28 days)	
Application Thickness	Min. 3 mm Maks. 8 mm	
Joint Sealant Period	24 hours	
Application Ground Temperature	+5°C +25°C	
Service Temperature	-40°C +80°C	 WK
Maturity Period	3-5 minutes	
Usage Period	2 hours	
Period of Open Waiting	~30 minutes	
Slide (mm)	None	
Wetting Ability	Min. %90	
Time to wait Before Walking on it	24 hours	
Time to wait Before Opening to Traffic	3 days	



MasterTile® FLX 29

(Formerly known as Ultrafleks®)

Description Of Product

MasterTile® FLX 29, is a cement based highly stable high performance adhesive used in adhesion of ceramics, granites, cottos, press bricks, porcelains, glass mosaics, marbles, natural and composed stones to all kinds of surfaces.

Complies with the EN 12004-C2TE S1 class.

C2= Cement based adhesive with improved additional properties
T= With reduced sliding
E= Extendent open time
S1= Deformable

Fields Of Application

- In inner and outer areas for vertical and horizontal applications.
- In the adhesion of ceramics, granites, cottos, press bricks, porcelains, glass mosaics, marbles, natural and composed stones to all kinds of surfaces (like cement based surfaces, concrete, precast concrete parts, plasters, etc.).
- In the adhesion of ceramics, granites, marbles, natural stones, and glass mosaics on surfaces effected from temperature differences such as; plasterboard, gypsum-plaster, heat insulation sheets, gas concrete, after primering with **MasterTile® P 300 RC**.
- In wet areas like swimming pools, water tanks, bathrooms, etc.
- In underfloor heating surfaces, heated pools, thermal pools, swimming pools that are not emptied in winters.
- In the wall and floor tiles of cold storage houses. In ceramic and granite applications and repairs of building exteriors, in adhesion of ceramic on to ceramic

Features And Benefits

- Special light weight fine sealant combination produced with high technology.
- Has nearly double coverage compared to known adhesives.
- Easy to prepare and apply. High flexibility.
- Long process time and quick set.
- No sliding in vertical applications. Has perfect vacuum effect.
- Resistant to freezing-thawing cycle. Resistant against tensions and vibrations rooting from temperature differences.

Packaging

15 kg polyethylene reinforced kraft bag

Coverage

0.81 kg/m² for a thickness of 1 mm adhesive

MasterTile® FLX 29	Ceramic Notched Trowel Dimensions and Coverage (kg/m ²)			
	4 mm	6 mm	8 mm	10 mm
15 kg	1,63	2,44	3,25	4,06

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.

Technical Data

Structure of the Material	High-tech, Synthetic Additives and Special Cement	
Color	Grey - White	
Tensile Adhesion Strength	≥1,00 N/mm ² (28 days)	
Application Thickness	Min. 1 mm Maks. 15 mm	
Joint Sealant Period	~5 to 10 hours	
Application Ground Temperature*	+5°C +25°C	
Service Temperature	-30°C +80°C	WK
Maturity Period	3-5 minutes	
Usage Period	~90 minutes	
Period of Open Waiting	≥30 minutes	
Slide (mm)	None	
Wetting Ability	Min. %99	
Time to wait Before Walking on it	~24 hours	
Time to wait Before Full Loading	~5 to 10 hours	

*Obtained in +23°C, 50 % relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time. *Joint sealant process has to be made in 5 to 10 hours in spread thickness of up to 5 mm, and 24 hours later in applications over 5 mm spread thicknes*



MasterTile® FLX 426

Description Of Product

MasterTile® FLX 426, is a cement based polymer modified, fast setting, highly stable high performance flexible adhesive used in adhesion of ceramics, granites, marbles, natural stones, glass mosaics, and press bricks.

Complies with the EN 12004-C2FS2 Class

C2 : Cement based adhesive with improved additional properties
 F : Fast Setting
 S2 : Highly Deformable

Fields Of Application

- In inner and outer areas for horizontal applications,
- In the adhesion of ceramics, granites, cottos, press bricks, porcelains, glass mosaics, marbles, natural and composed stones to all kinds of surfaces (like cement based surfaces, concrete, precast concrete parts, plasters,etc.).
- In the adhesion of ceramics, granites, marbles, natural stones, and glass mosaics on surfaces effected from

temperature differences such as; plasterboard, gypsum-plaster, heat insulation sheets, gas concrete, after primering with **MasterTile® P 300 RC**.

- In wet areas like swimming pools, water tanks, bathrooms, etc.

Features And Benefits

- Easy to prepare and apply.
- Resistant to freezing-thawing cycle. Resistant against tensions and vibrations rooting from temperature differences.
- Fast Setting
- Highly flexiable
- Complies with the EN 12004 - C2F S2 Class

Packaging

20 kg polyethylene reinforced kraft bag

Technical Data

Structure of Material	Mineral fillers, Syntetic additives powder polymer and special cement	
Color	Grey	
Substrate Temperature	+5°C +25°C	
Service Temperature	-40°C +80°C	
Tensile Adhesion Strenght	≥ 0,5 N/mm²	
Early Tensile Adhesion Strenght (3 Hours Later)	≥ 1,0 N\mm² (EN 1348)	
Tensile Adhesion Strenght After Water Immersion	≥ 1,0 N\mm² (EN 1348)	WK
Tensile Adhesion Strenght After Heat Ageing	≥ 1,0 N\mm² (EN 1348: 2007)	
Tensile Adhesion Strenght After Freeze / Thaw Cycle	≥ 1,0 N\mm² (EN 1348: 2007)	
Flexibility	≥ 0,5 N/mm²	



MasterTile® P 300

(Formerly known as Astar® A)

Description Of Product

MasterTile® P 300, is a copolymer acrylic based single-part primer material for absorbent surfaces.

Complies with the EN 1504-2

Fields Of Application

- In inner and outer areas for vertical and horizontal applications.
- In the protection of absorbent surfaces like gypsum-plasterboard, gypsum-plaster, gas concrete, plaster, lime plaster, chipboard, etc. from humidity.
- To increase process time of leveling grout and similar grouts, increase ground adherence, and minimize air bubbles.
- In priming of gypsum-plasterboard, gypsum-plaster, gas concrete, plaster, lime plaster, and brick walls to prevent cracks because of rapid water absorption of surface before gypsum plaster application.
- Before the application of ceramic or marble to absorbent surfaces like gypsum-plaster, gas concrete, lime plaster, and chipboard to prevent rapid loss of adhesive mortar water and falling of pavement in time.
- To improve condition of grouts under carpets against dusting.
- Used as primer before wallpaper and paint applications.

Features And Benefits

- Resistant against moisture.
- Prevents cracks because of rapid water loss in cement based pavements on absorbent surfaces.
- Easy to apply.
- Gives high adherence.
- Does not contain solvents and it is odorless used safely in closed areas.

Packaging

10 kg and 30 kg plastic can

Coverage

Approximately 80-175 g/m² depending on surface absorption and roughness.

Shelf Life

12 months after the production date under appropriate storing conditions. **MasterTile® P 300** freezes below 0°C. Opened packages have to be stored by tightly sealing the cover and must be used in one week.

Technical Data

Structure of the Material	Modified copolymer acrylic resin dispersion	
Color	Light Blue	LX
Density	~1,00 kg/lit	
Consistency	Liquid	
Application Ground Temperature	+5°C +30°C	
Service Temperature	-20°C +80°C	
Dry Time	2 hours	
Time to Wait Before Applying Second Layer	2 hours	
Other Applications	24 hours	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures reduce, lower temperatures increase the times Given



MasterTile® P 303 RC

Description Of Product

MasterTile® P 303 RC, is a copolymer acrylic based single-part primer material for absorbent surfaces.

Complies with the EN 1504-2, system 4

Fields Of Application

- In inner and outer areas for vertical and horizontal applications.
- In the protection of absorbent surfaces like gypsum-plasterboard, gypsum-plaster, gas concrete, plaster, lime plaster, chipboard, etc. from humidity.
- To increase process time of leveling grout and similar grouts, increase ground adherence, and minimize air bubbles.
- Fast acting primer providing a moisture barrier for the use on absorbent substrates such as gypsum plaster, gypsum flooring, gypsum plaster board, gypsum fibreboard, anhydrite screeds and building boards, aerated concrete, concrete, plaster/render and brickwork.
- Before the application of ceramic or marble to absorbent surfaces like gypsum-plaster, gas concrete, lime plaster, and chipboard to prevent rapid loss of adhesive mortar water and falling of pavement in time.
- To improve condition of grouts under carpets against dusting.
- Used as primer before wallpaper and paint applications.

Features And Benefits

- Resistant against moisture.
- Prevents cracks because of rapid water loss in cement based pavements on absorbent surfaces.
- Easy to apply.
- Gives high adherence.
- Does not contain solvents and it is odorless used safely in closed areas.
- Very rapid curing.

Packaging

5 kg plastic bucket

Coverage

Approx. 80-150 gr/m² for gypsum-based substrates; screeds with old adhesive residues. Approx. 50-150 gr/m² for absorbent mineral substrates, e.g. concrete substrates, cement screeds, lime/cement renders, aerated concrete, lime sandstone etc.

Shelf Life

12 months after the production date under appropriate storing conditions. **MasterTile® P 303 RC** freezes below 0°C. Opened packages have to be stored by tightly sealing the cover and must be used in one week.

Technical Data

Structure of the Material	Modified Copolymer Acrylic Resin Dispersion	
Color	Light Pink	LX
Density	~1,00 kg/lt	
Consistency	Liquid	
Application Ground Temperature	+5°C +30°C	
Service Temperature	-20°C +80°C	
Dry Time (Walkable)	5 minutes	
Covered with Tile Adhesives and Self Leveling Screeds After	5 minutes	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterTile® P 302

(Formerly known as Gisopakt®)

Description Of Product

MasterTile® P 302, is a polymer modified resin based primer used in smooth concrete surfaces, walls, and ceilings for improving adherence, working time, and workability of cement and especially gypsum based plasters.

Complies with the EN 1504-2

Fields Of Application

- In door and outdoor areas for vertical surfaces and ceilings
- To increase gypsum, lime, and cement based plaster mortars adherence to gross concrete surfaces
- For ceiling plasters as primer

Features And Benefits

- Easy to apply.
- Increases adherence of cement and especially gypsum based plasters to gross concrete.
- Prevents rapid water loss of cement and especially gypsum based plasters.

- Increases working time and workability of cement and especially gypsum based plasters.
- Does not contain solvents.

Packaging

12 kg plastic bucket

Coverage

Approximately 150-250 g/m² depending on surface absorption and roughness.

(Diluted m² mixture coverage: 210-375 g/m² . In the application, single layer film thickness has to be around 160 to 280 microns)

Shelf Life

12 months after the production date under appropriate storing conditions. **MasterTile® P 302** freezes below 0°C. Opened packages have to be stored by tightly sealing the cover and must be used in one week.

Technical Data

Material Base	Modified Polymer Resin Based Dispersion	
Color	Green	LX
Consistency	Brush consistency	
Density	~1,50 kg/lt	
Application Thickness	Min. 0,20 mm - Maks. 0,40 mm	
Application Ground Temperature	+5°C +30°C	
Service Temperature	-20°C +80°C	
Drying Time	60 to 120 minutes	
Full Drying Time	~24 hours	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures reduce, lower temperatures increase the times Given.



MasterTile® P 303

(Formerly known as Astar® 303)

Description Of Product

MasterTile® P 303, is a modified acrylic dispersion based single-part primer material for shiny and non-absorbent surfaces.

Complies with the EN 1504-2

Fields Of Application

- Indoor and outdoor areas for vertical and horizontal applications.
- In outer areas for pavements like ceramic, glazed press brick, natural and composed stones.
- In inner areas with **MasterTile® FLX 29** application after priming of non-absorbent surfaces like non-emeried PVC or metal that stuck on ground strongly.
- For perfect adherence before **MasterEmaco® N 600** and **MasterEmaco® N 601** applications on shiny gross concrete surfaces.
- To increase process time of leveling grout and similar grouts, increase ground adherence, and minimize air bubbles.
- Used as primer before plaster or ceramic adhesion processes on wooden chip plates in inner areas

Features And Benefits

- Single-part.
- Does not contain solvents and it is environment friendly.

Packaging

5 kg plastic bucket

Coverage

Approximately 120-180 g/m² depending on surface absorption and roughness.

Shelf Life

12 months after the production date under appropriate storing conditions. **MasterTile® P 303** freezes below 0°C. Opened packages have to be stored by tightly sealing the cover and must be used in one week.

Technical Data

Structure of the Material	Modified special dispersion and epoxy	LX
Color	White	
Density	~1,31 kg/l	
Consistency	Brush consistency	
Application Ground Temperature	+5°C +30°C	
Drying Time	~3 hours	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures reduce, lower temperatures increase the times Given.



MasterTile® PAS 101

(Formerly known as Bikolit®)

Description Of Product

MasterTile® PAS 101, is a dispersion based adhesive used in adhesion of tiles and ceramics to indoor vertical and absorbent surfaces.

TComplies with the EN 12004-D2TE class.

D2= Acrylic based adhesive with improved additional properties

T= With reduced sliding

E= Extendent open time

Fields Of Application

- In inner areas for vertical applications
- In the adhesion of ceramics, tiles, and glass mosaics
- In the adhesion of gypsum-plasterboard, wooden surfaces, and gypsum-plaster walls
- In heat insulation sheets
- In adhesion of ceramic on to plaster and old ceramic.

Features And Benefits

- Ready-to-use.
- Long process time.

- Enables flexible adhesion layer.
- No sliding in vertical applications. Not affected by humidity.

Packaging

5 kg plastic bucket

15 kg plastic bucket

Coverage

1.70 kg/m² for a thickness of 1 mm adhesive

MasterTile® PAS 101	Ceramic Notched Trowel Dimensions and Coverage (kg/m ²)	
	4 mm	6 mm
15 kg	3,40	5,10
5 kg	1,10	1,70

Shelf Life

12 months after the production date under appropriate storing conditions. **MasterTile® PAS 101** freezes below 0°C. Opened packages have to be stored by tightly sealing the cover and must be used in one week.

Technical Data

Structure of the Material	Acrylic binders and special sealants
Color	White
Tensile Adhesion Strength	≥1,00 N/mm ² (28 days)
Density	≥1,00 N/mm ² (28 days)
Joint Sealant Period	Min. 3 days
Application Thickness	Maks. 3 mm
Application Ground Temperature	+10°C +25°C
Service Temperature	-10°C +70°C
Period of Open Waiting	30 minutes
Slide (mm)	None
Wetting Ability	Min. %90
Full Curing Period	28 days

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures reduce, lower temperatures increase the times Given.



MasterTile® WP 620

(Formerly known as Masterflex® PB 120)

Description Of Product

MasterTile® WP 620, is a thermoplastic elastomer based, polyester fabric reinforced waterproofing tape for construction joints, corners and perimeter joints.

Fields Of Application

- For indoor and outdoor use.
- For wet areas with non pressurized water such as showers, in residential buildings, hotels, old people's homes and hospitals.
- For balconies and terraces.
- For water treatment plants.
- For permanently wet areas with pressurized water such as swimming pools.
- For embedding in the waterproof coatings
- For forming corner joints and floor/wall junctions in combination with the waterproofing membranes.

Technical Data

Material	Thermoplastic Elastomer
Color	Light Blue
Total Width	120 mm
Elastic Band Width	32 mm
Thickness	0,90 mm
Elongation at Break	%225
Puncture Resistance	2,0 bars
Water Pressure Resistance	>1,5 bars
Service Temperature	-30°C +90°C

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures reduce, lower temperatures increase the times Given

Features And Benefits

- Easy to install
- Permanently waterproof
- Resistant to most chemicals
- Resistant to UV and ozone
- Crack bridging property

Packaging

15 m rolls
50 m rolls

Shelf Life

There is no shelf life limitation under appropriate storage conditions.

MasterTile® WP 630

(Formerly known as Masterflex® WT 120)

Description Of Product

MasterTile® WP 630, is a thermoplastic elastomer based, polyester fabric saturated waterproofing tape for construction joints, corners and perimeter joints.

Fields Of Application

- For indoor and outdoor use,
- For wet areas,
- For balconies and terraces,
- For embedding in the waterproof coatings,
- For forming corner joints and floor/wall junctions in combination with the waterproofing membranes.

Technical Data

Material	Thermoplastic Elastomer
Color	Light Blue
Total Width	120 mm
Thickness	0,50 mm
Elongation at Break	≥254 %
Puncture Resistance	2,0 bars
Water Pressure Resistance	>1,5 bars
Service Temperature	-30°C +90°C

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures reduce, lower temperatures increase the times Given

Features And Benefits

- Easy to install
- Permanently waterproof
- Resistant to most chemicals
- Resistant to UV and ozone
- Crack bridging property

Packaging

50 m rolls

Shelf Life

There is no shelf life limitation under appropriate storage conditions



MasterTile® WP 665

(Formerly known as Yapfleks® 305)

Description Of Product

MasterTile® WP 665, is a cement based polymer reinforced single part rigid insulation material used on concrete curtains and cement based plasters, and applied from the inside or outside against leaking and normal pressure surface waters.

Complies with EN 1504-2

Fields Of Application

- In inner and outer areas for vertical and horizontal applications,
- In insulation of foundations,
- In supporting walls,
- In water tanks,
- In wet volumes like WC, bathroom, kitchen, and balcony,
- In small terraces,
- As waterproofing insulation material in small swimming pools and decorative pools.

Features And Benefits

- Easy to prepare and apply.
- Applied by brush, trowel or spraying machine.

- Long working time.
- Water vapor permeable.
- Non-shrinking and non-cracking.
- Resistant to freezing-thawing cycle. Can be safely used in drinking water tanks (has a test report).

Chemical Analysis Laboratory and consistent with BS 6920 Standard Analysis Report.

Packaging

20 kg polyethylene reinforced kraft bag

Coverage

Coverage of First Layer: 1.50 kg/m² powder product
Second Layer: 1.30 kg/m² powder product
Third Layer: 1.20 kg/m² powder product

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.

Technical Data

Structure of the Material	Mineral sealant Polymer Modified admixtures and special cement		
Color	Grey		
Rupture Strength	>1,00 N/mm ²		
Resistance to Pressurized Water	>0,50 bar positive		
Application Ground Temperature	+5°C +25°C		
Service Temperature	-20°C +80°C	 KR	
Maturity Period	3-5 minutes		
Usage Period	2 hours (in + 20°C)		
Period to Wait Before Opening to Service Mechanic Strength Water Impermeability	2 days 7 days		
Period to Wait Before Coating Its Top By Plaster By Ceramic	3 days 3 days		

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures reduce, lower temperatures increase the times Given.



MasterTile® WP 666

(Formerly known as Yapfleks® 306)

Description Of Product

MasterTile® WP 666, is a cement and acrylic based dual part waterproofing material used on concrete, curtain, and cement based plasters, and applied from the inside or outside against leaking and surface waters.

Complies with the EN 1504-2

Complies with the EN 14891

Type:CM= Cementitious liquid-applied water impermeable products;

Class:O2P= Resistant to contact with chlorinated water, with crack bridging ability at low temperature.

Fields Of Application

- In inner and outer areas for vertical and horizontal applications from the direction of coming water.
- In insulation of foundations. In supporting walls.
- Grounds that are expected to be deflected. In terraces (on condition of protecting the top).
- In wet volumes like WC, bathroom, kitchen, and balcony.
- In olympic swimming pools.
- In water tanks (on condition of protecting the top).
- In facilities like spa and hamams. In insulation of flower gardens.

Features And Benefits

- Easy to prepare and apply
- Applied by brush or spraying machine. Long working time
- Ability to bridge shrinkage cracks with its highly flexible structure

- Forms a jointless, spliceless, permanent, moisture and waterproofing coating
- Resistant to chemicals and salt solutions in soil. Water vapor permeable
- High durability
- Resistant to freezing-thawing cycle
- Can be used in areas affected by movement and vibration
- Forms a perfect water impermeable, non-deformable layer under grouts and ceramics with high adhesion performance and flexible structure

Packaging

30 kg set

Part A: 20 kg polyethylene reinforced kraft bag

Part B: 10 kg tin

Coverage

Coverage of First Layer: 1.20 kg/m² mixture

Coverage of Second Layer: 1.00 kg/m² mixture

Coverage of Third Layer: 1.00 kg/m² mixture

Shelf Life

12 months after the production date under appropriate storing conditions. Part B of **MasterTile® WP 666** freezes below 0°C. Opened packages have to be stored by tightly sealing the bag/cover and must be used in one week.

Technical Data

Structure of the Material MasterTile® WP 666 Part A MasterTile® WP 666 Part B	Mineral sealant, polymer modified admixtures and special cement copolymer acrylic dispersion	
Color	Greenish Grey	
Adhesion Strength	≥1,00 N/mm ²	
Resistance to Pressurized Water	7 bars (positive)	
Capillary Water Absorption	≤0,10 gr (after 4 hours)	
Application Ground Temperature	+5°C +25°C	
Service Temperature	-20°C +80°C	
Maturity Period	3-5 minutes	
Usage Period	2 hours	
Period to Wait Before Opening to Service Mechanic Strength	2 days 7 days	
Period to Wait Before Coating Its Top		
By Plaster	3 days	
By Ceramic	3 days	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures reduce, lower temperatures increase the times Given



MasterTile® WP 667

(Formerly known as Yapfleks® 307)

Description Of Product

MasterTile® WP 667, is a cement and acrylic based dual part waterproofing material used on concrete and cement based plasters, and applied from the inside or outside against leaking and surface waters.

Complies with the EN 1504-2

Fields Of Application

- In inner and outer areas for vertical and horizontal applications
- In insulation of foundations. In supporting walls
- In terraces (on condition of protecting the top)
- In wet volumes like WC, bathroom, kitchen, and balcony
- In semi-olympic swimming pools
- In water tanks
- In facilities like spa and hamams. In insulation of flower gardens

Features And Benefits

- Half-flexible and water impermeable. Easy to prepare and apply.
- Applied by brush or spraying machine. Long working time.
- Forms a water impermeable layer under grouts and ceramics with high adhesion performance and half-flexible structure.

- Forms a jointless, seamless, permanent, water impermeable coating.
- Resistant to chemicals and salt solutions in soil. Water vapor permeable.
- Resistant to freezing-thawing cycle.
- Can be safely used in drinking water tanks (has a test report).

Chemical Analysis Laboratory and consistent with BS 6920 Standard Analysis Report.

Packaging

25 kg set
Part A: 20 kg polyethylene reinforced kraft bag
Part B: 5 kg tin

Coverage

Coverage of First Layer: 1.40 kg/m² mixture
Coverage of Second Layer: 1.20 kg/m² mixture
Coverage of Third Layer: 1.00 kg/m² mixture

Shelf Life

12 months after the production date under appropriate storing conditions. Part B of **MasterTile® WP 667** freezes below 0°C. Opened packages have to be stored by tightly sealing the bag / cover, and must be used in one week.

Technical Data

Structure of the Material MasterTile® WP 666 Part A MasterTile® WP 666 Part B	Mineral sealant, polymer modified admixtures and special cement copolymer acrylic dispersion	
Color	Grey	
Adhesion Strength	>1,50 N/mm ² (28 days)	
Resistance to Pressurized Water	2 bars positive	
Capillary Water Absorption TS EN 12808-5)	≤0,10 gr (after 4 hours)	
Application Ground Temperature	+5°C +25°C	KR
Service Temperature	-20°C +80°C	
Maturity Period	3-5 minutes	
Usage Period	2 hours	
Period to Wait Before Opening to Service		
Mechanic Strength Water Impermeability	2 days 7 days	
Period to Wait Before Coating Its Top		
By Plaster	3 days	
By Ceramic	3 days	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures reduce, lower temperatures increase the times Given.



MasterTile® WP 668

(Formerly known as Lastogum®)

Description Of Product

MasterTile® WP 668, is an acrylic based single component waterproofing material used on under ceramic coverings in showers and bathrooms.

Complies with the EN 1504-2

Fields Of Application

- For indoor use
- For walls and floors
- Resistance class A in accordance with the test principles to issue an official test certificate
- For wet areas not exposed to pressurised water, such as bathrooms, showers in residential buildings, hotels, old people’s homes and hospitals
- On moisture-sensitive, absorbent substrates, e.g. plasters, plaster slabs, gypsum fibre boards, plaster boards, wooden chipboards, anhydrite screeds in moist and wet areas subject to usual domestic use

Features And Benefits

- Waterproof, protects moisture-sensitive substrates.
- Flexible, compensates tensions, deformations of the substrate, variations in temperature and vibrations.
- Crack-bridging, high reliability even with subsequent cracks in the substrate
- Solvent-free, no harmful risk to the environment, can be used without any risk to health.
- Meets the test principles to issue an official test certificate according to 2DB leaflet for bonded

waterproofing for moisture resistance class A0 in combination with the adhesives **MasterTile® FLX 22**, **MasterTile® FLX 24**, **MasterTile® NTS 26**, **MasterTile® NTS 27**.

- Ready-to-use, easy to apply by roller, brush or trowel
- Two-coloured, for easier visual control of the layer thickness
- Resistant to lime water, ensures bond between protective coating and mortar if the adhesive bed is constantly submerged in water.

Packaging

10 kg plastic bucket

Coverage

2 layer 1.2-1.5 kg/m²

Shelf Life

12 months after the production date under appropriate storing conditions. **MasterTile® WP 668** freezes below 0°C and no permanent storage over +30°C.

Technical Data

Material Base	Solvent-free synthetic resin dispersion
Color	White and/or Grey
Density	Approx. 1,5 g/cm³
Min Consumption	1,1 – 1,2 kg/m² (Dry Layer Thickness of 0,5 mm)
Thickness of Wet Film	Approx. 0,7 mm (min 2 layers)
Working Temperature	+5°C +25°C (substrate temperature)
Evaporation Time After 1 st Coat	Approx 1 Hours
Evaporation Time After 2 st Coat Ready for Sbsequent Tiling	Approx 1-2 hours
Service Temperature	-20°C +80°C



Joint Grouts

TILE ADHESIVES SYSTEMS PRODUCT SUGGESTION TABLE

		Products																				
		MasterTile® 14	MasterTile® 15	MasterTile® FLX 20	MasterTile® FLX 20 RC	MasterTile® FLX 22	MasterTile® FLX 24	MasterTile® FLX 29	MasterTile® P 300	MasterTile® P 300 RC	MasterTile® P 302	MasterTile® P 303	MasterTile® PAS 101*	MasterTile® WP 620	MasterTile® WP 630	MasterTile® WP 665	MasterTile® WP 666	MasterTile® WP 667	MasterTile® WP 668	MasterTile® FLX 555	MasterTile® JF 560	MasterTile® JF 565
WATER STRUCTURES	Drinking Water			•	•	•	•	•					•	•		•		•				•
	Soft Water			•	•	•	•						•	•		•		•				
	Domestic Waste Water															•		•				
	Salt Water			•	•	•	•						•					•				
	Swimming Pool			•	•	•	•	•					•		•			•	•	•	•	
DIFFERENT APPLICATION AREAS	WC,Bathroom and Wetrooms	•	•	•	•	•	•	•			•	•	•	•	•	•	•	•	•	•	•	•
	Balcony			•				•							•	•	•					
	Hammam and Sauna			•	•	•	•	•					•	•		•		•	•	•	•	•
	Walkable Terrace			•	•	•	•	•					•			•			•	•	•	•
	Parking Garage	•	•	•	•	•	•	•										•		•	•	•
	Decorative Exterior Coverings			•	•	•	•	•											•	•	•	•
	Walking Ways and Garden Coverings			•				•												•		
	Industrial Facilities			•	•	•	•	•											•		•	•
	Shopping Malls			•	•	•	•	•				•							•	•	•	•
	Thermal Pools			•	•	•	•	•					•			•			•	•	•	•
	Ceramic on Ceramic			•	•	•	•	•												•		
	Plasterboard Surface (Insulated)					•	•	•				•	•	•				•				
	Plasterboard Surfaces(not Insulated*)					•	•	•	•	•		•	•	•				•				
	Raw Concrete Surfaces					•	•	•	•			•						•				
	Wooden Surfaces (OSB/MDF*)					•	•	•	•	•		•	•	•		•		•				
	Concrete Chipboards*					•	•	•								•						
	PVC Surfaces*						•					•										
	SURFACES TYPES	Cerammic and Metal*					•	•											•			
		Gross Concrete Surfaces									•	•										
		Wooden Surfaces (OSB/MDF*)								•	•		•	•				•				
Plasterboard Surfaces									•	•		•	•				•					
Metal Surfaces											•											
Surface Cleaning																						

For more information consult to Master Builders Solutions Yapı Kimyasalları San. ve Tic. Ltd. Şti. Technical Service



MasterTile® 700

(Formerly known as Epofuga®)

Description Of Product

MasterTile® 700, is an epoxy reaction resin based grouting and adhesion material that can be cleaned with water, easily applied, is resistant to chemicals and bacteria, and used in the adhesion or grouting hole filling of materials like ceramics, marble, granite, antacid ceramics, glass mosaic and glass brick.

Complies with EN 13888-RG class (For grouting hole filling)

Complies with 11140 EN 12004-R2T class (For Ceramic Adhesive)

RG= Reaction resin based grouting filling materials.
R2= Reaction resin based adhesive with developed additional properties
T= Reduced sliding property

Fields Of Application

- In indoor and outdoor spaces, in vertical and horizontal applications,
- In filling the grouting holes of ceramics, marble, granite, antacid ceramics, glass mosaic and glass bricks adhered to existing surfaces.
- In beer, wine and raisin industries,
- In beverage and fruit juice industries,
- In milk, cheese and yogurt industries,
- In tomato paste, pickle and canned food industries,
- In meat and fish industries,
- In medicine, paint, paper, accumulator and manure industries,
- In printing houses, hotel kitchens and laundries, In hospital laboratories, dining halls, wet spaces and hygienic environments,
- In swimming pools and thermal pools,

- Waste water and purification facilities,
- In shopping centers.

Features And Benefits

- It is resistant to chemicals, acids, alkalis and oils
- It has anti-bacterial properties and it does not compose mildew, fungus and bacteria
- It has high abrasion resistance
- Applied **MasterTile® 700** does not keep the dirt on it and its after cleaning is easy
- It is suitable for grouting hole widths from 2 mm up to 10 mm
- It is resistant to sudden temperature changes that last for a short period of time
- It is freeze-thaw cycle resistant
- It can be used in contact with drinking water (complies with BS 6920 standards)

Packaging

5.20 kg (A+B) tin container set

Coverage

1.70 kg/m² for a thickness of 1 mm adhesive

Shelf Life

12 months in original unopened packaging if stored in appropriate conditions. Opened packagings should be consumed in one week.

Technical Data

Structure of the Material MasterTile® WP 700 Part A MasterTile® WP 700 Part B	Epoxy Resin Epoxy Hardener	
Pressure Resistance	≥45 N/mm ²	
Bending Resistance	≥30 N/mm ²	
Rupture Resistance	≥2,50 N/mm ²	
Adhesion Resistance In Cutting	≥2,00 N/mm ²	
Water Absorbtion	≥0,10 gr (after 240 minutes)	
Application Surface Temperature	+10°C +25°C	LX
Service Temperature Continuous In Dry Media In Wet Medium	-20°C +80°C -20°C +50°C	
Usage Duration	~45 minutes	
Open Waiting Duratin	≥ -20 minutes	
Sliding	None	
Walking Over Duration	24 hours	
Duration For Opening to Traffic	7 days	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterTile® FLX 555

(Formerly known as Fleksfuga®)

Description Of Product

MasterTile® FLX 555, is a cement based, grouting material decorative for ceramic, tile, marble and granite interlines which is not effected by water and which is resistant against vibrations, elongations and contractions due to temperature changes.

Complies with EN 13888 - CG2WA class

CG2= Enhanced Cement based grouting (fulfilling additional properties)

W= Reduced Water absorption property

A= Highly abrasion-resistant

Fields Of Application

- Indoor spaces, in vertical and horizontal applications
- In filling the grouting holes of ceramics, tiles, marble and granite adhered on existing surfaces
- Shopping centers
- On commercial and industrial floors
- In hotels
- In hospitals
- In wet spaces
- In domiciles

Features And Benefits

- Prepared and applied easily.
- Does not scratch silvered surfaces.
- It is suitable for grouting holes with the widths 2-8 mm.
- Provides excellent adhesion to the edges of tiles without cracking.
- Has a long machinability duration. Smooth

Technical Data

Structure of the Material	Its contains mineral fillings, sythetic additives and special cement	
Pressure Resistance	≥15 N/mm ²	
Bending Resistance	≥2,50 N/mm ²	
Water Absorbtion		
30 minute	≤2gr	
240 minute	≤5gr	
Abrasion Resistance	≤1000 mm ³	WK
Application Surface Temperature	+5°C +25°C	
Service Temperature	-20°C +80°C	
Maturation Period	3-5 minutes	
Usage Duration	2 hours	
Life Water Deliverance	10-20 minutes	
Walking Over Duration	24 hours	

surfaces are obtained.

- Since it has little water absorbance it hardly gets dirty and can be cleaned easily.
- Freeze-thaw cycle resistant.
- Resistant to impacts, vibrations and detergents.

Packaging

5 kg and 20 kg polyethylene reinforced kraft bag

Coverage

Ceramic Dimensions	Coverage Table For Cement Based Grouting, Grouting Hole (Depth: 8 mm)					
	Grouting Widths					
	2 mm (gr/m ²)	3 mm (gr/m ²)	4 mm (gr/m ²)	5 mm (gr/m ²)	6 mm (gr/m ²)	8 mm (gr/m ²)
10x10	500	700	1000	1250	1500	2000
10x20	350	550	750	950	1150	1550
15x15	300	450	600	800	950	1250
15x20	250	400	550	750	900	1150
20x20	250	350	500	700	800	1050
20x25	200	350	500	600	750	1000
20x30	200	300	450	550	650	900
30x30	150	250	350	450	550	700

Coverage Amounts are theoretical. They show powdered product Coverages

Shelf Life

12 months in original unopened packaging if stored in appropriate conditions. Opened packagings should be consumed in one week.



MasterTile® JF 560

(Formerly known as Drafug® NT)

Description Of Product

MasterTile® JF 560, is a cement based, easily applied fluent grouting material that is used for the grouting of coatings like ceramics, marble, granite, antacid ceramics and natural stone with high mechanical resistance and that can resist various chemicals.

Complies with EN 13888 - CG2WA class

CG2= Enhanced Cement based grouting (fulfilling additional properties)

W= Reduced Water absorption property

A= Highly abrasion-resistant

Fields Of Application

- Indoor and outdoor areas, horizontal applications
- In filling the grouting holes of coating materials like ceramics, marble, granite, antacid ceramics and natural stone existent on surfaces
- In terraces and balconies
- On industrial floors under intensive traffic
- On surfaces where mechanical or chemical cleaning is performed
- In ceramics and granite coating grouting of areas like kitchens, washing areas, sale and exhibition halls
- In vertical applications, the application may be made by using the reduced water proportions in the mixing ratios table

Features And Benefits

- Attains an excellent resistance to mechanical loads with its high technology.
- Reduces dirt penetration to a minimum with its high density structure.
- Resistant to neutral and alkali cleaning substances.

- When compared to other cement based interliners, its endurance against acidic cleaners has been increased.
- It can endure +250°C and being cleaned with a water jet with a high pressure of 100 bars.
- It is suitable for grouting hole widths from 3 mm up to 20 mm.
- It solidifies without cracks.
- It is freeze - thaw cycle resistant.
- It has one component. It is easily applied and cleaned like other cement based interliners.
- It can contact with potable water.

Packaging

20 kg polyethylene reinforced kraft bag

Coverage

Ceramic Dimensions	Coverage Table For Cement Based Grouting, Grouting Hole (Depth: 8 mm)					
	Grouting Widths					
	3 mm (gr/m ²)	4 mm (gr/m ²)	5 mm (gr/m ²)	6 mm (gr/m ²)	8 mm (gr/m ²)	10 mm (gr/m ²)
20x20	550	725	900	1100	1450	1800
20x25	500	650	850	1000	1350	1650
20x30	450	600	750	900	1200	1500
30x30	350	500	600	700	950	1200
60x60	180	250	300	350	475	600
60x120	150	180	225	275	350	450
100x100	180	250	300	350	475	600

Shelf Life

12 months in original unopened packaging if stored in appropriate conditions. Opened packagings should be consumed in one week.

Technical Data

Material Base	It Contains High Technology Fillings Synthetic Additives and Special Cement	
Compressive Strenght	≥50 N/mm ²	
Flexural Strenght	≥2,50 N/mm ²	
Contraction Value	≤3 mm/m	
Abrasion Resistance	≤1000 mm ³	
Water Absorbition: 30 minutes 240 minutes	≤2gr ≤5gr	
Application Surface Temperature	+5°C +25°C	
Service Temperature	-20°C +250°C	
Maturation Period	3-5 minutes	
Usage Duration	60 minutes	
Regimentation Duration: Walking Over Duration	6 hours	
Exposure to Water Duration for Opening to Traffic	24 hours 7 days	

All figures are at +23°C with a relative humidity of 50%. High temperatures cause shorter cure times and vice versa.



MasterTile® JF 565

(Formerly known as Durafug® HF)

Description Of Product

MasterTile® JF 565, is a cement based, easily applied grouting material used in places like pools, baths, saunas, spas for the grouting of overlays like pool ceramics, granite ceramics, marble, glass, mosaic, porcelain ceramics.

Complies with EN 13888 - CG2WA class

CG2= Enhanced Cement based grouting (fulfilling additional properties)

W= Reduced Water absorption property

A= Highly abrasion-resistant

Fields Of Application

- In indoor and outdoor spaces, in vertical and horizontal applications,
- In the grouting of pool ceramics, granite ceramics, marble, glass mosaics, porcelain ceramics adhered to existent surfaces,
- In swimming pools and decoration pools,
- In water reservoirs,
- In baths and saunas,
- In terraces and balconies,
- In areas where mechanical and chemical cleaning is performed.

Features And Benefits

- It attains an excellent resistance to pool and cleaning chemicals with its high technology.
- It reduces dirt penetration to a minimum with its high density structure.
- It is resistant to neutral and alkali cleaning substances.
- When compared with other cement based interliners its endurance against acidic cleaners has been increased.
- It can endure +150°C and being cleaned with a water jet with a high pressure of 100 bars.

- It is suitable for grouting hole widths from 1 mm up to 8 mm.
- It solidifies without cracks.
- It is freeze-thaw cycle resistant.
- It has one part. It is easily applied and cleaned like other cement based interliners.

Packaging

5 kg and 20 kg polyethylene reinforced kraft bag

Coverage

Ceramic Dimensions	Coverage Table For Cement Based Grouting, Grouting Hole (Depth: 8 mm)					
	Grouting Widths					
	2 mm (gr/m ²)	3 mm (gr/m ²)	4 mm (gr/m ²)	5 mm (gr/m ²)	6 mm (gr/m ²)	8 mm (gr/m ²)
2,5x2,5	2500	3700	-	-	-	-
5x5	-	1900	-	-	-	-
10x10	-	1000	1350	1750	2100	2800
10x20	-	750	1050	1300	1550	2050
20x20	-	550	750	900	-	-
30x30	-	350	500	600	-	-

Shelf Life

12 months in original unopened packaging if stored in appropriate conditions. Opened packagings should be consumed in one week.

Technical Data

Structure Of The Material	It Contains High Technology Fillings, Sythetic Additives and special cement	
Pressure Resistance	≥50 N/mm ²	
Bending Resistance	≥2,50 N/mm ²	
Contraction Value	≤3 mm/m	
Abrasion Resistance	≤1000 mm ³	
Water Absorbtion: 30 minutes 240 minutes	≤2gr ≤5gr	
Application Surface Temperature	+5°C +30°C	
Service Temperature	-20°C +250°C	
Maturation Period	3-5 minutes	
Usage Duration	60 minutes	
Regimentation Duration: Walking Over Duration	6 hours 24 hours	

All figures are at +23°C with a relative humidity of 50%. High temperatures cause shorter cure times and vice versa.



Waterproofing Systems

WATERPROOFING PRODUCT SUGGESTION TABLE

	Products	MasterSeal® 390	MasterSeal® 501	MasterSeal® 525	MasterSeal® 582	MasterSeal® 589	MasterSeal® 591	MasterSeal® 596	MasterSeal® 6100 FX	MasterSeal® 620	MasterSeal® 645	MasterSeal® 665	MasterSeal® 694	MasterSeal® 901	MasterSeal® 909	MasterSeal® 910	MasterSeal® 926	MasterSeal® 930	MasterSeal® M 251	MasterSeal® M 640	MasterSeal® M 665	MasterSeal® M 689	MasterSeal® M 800	MasterSeal® M 811	MasterSeal® M 860	MasterSeal® M 861	MasterSeal® M 866	
WATER STRUCTURES	Potable Water		•	•	•		•					•	•	•	•	•				•								
	Soft Water Tank				•		•					•	•	•	•	•	•				•	•	•	•	•	•	•	•
	Domestic Waste Water Tank				•		•					•	•	•	•	•	•				•							
	Salt Water Tank		•	•	•		•					•	•	•	•	•	•				•	•	•	•	•	•	•	•
	Decorative Pool		•	•	•		•					•	•	•	•	•	•				•	•	•	•	•	•	•	•
	Swimming Pool		•	•	•		•					•	•	•	•	•	•				•							
TERRACE AND ROOFS	Small Areas	•	•	•			•												•	•	•	•	•	•	•	•	•	
	Big Areas	•																		•	•	•	•	•	•	•	•	
	UV Exposed	•	•	•			•											•		•	•	•	•	•	•	•	•	
	Walkable Terrace						•													•	•	•	•	•	•	•	•	
	Terrace Garden														•	•				•	•	•	•	•	•	•	•	
	Carpark Decks						•								•	•				•	•	•	•	•	•	•	•	
BALCONIES AND WETROOMS	Balconies		•	•	•		•											•	•	•	•	•	•	•	•	•	•	
	Bathrooms and Toilets		•	•	•		•											•		•	•	•	•	•	•	•	•	
	Hammam and Sauna		•	•	•		•													•	•	•	•	•	•	•	•	
	Thermal Pools				•		•														•	•	•	•	•	•	•	
BASEMENT/CONCRETE WALL AND RETAINING WALL	Small Areas	•	•	•								•	•	•						•	•	•					•	
	Big Areas			•			•	•	•	•	•	•	•	•							•	•	•				•	
	Foundation With Piles																			•	•	•						
	Below Raft Concrete											•	•							•	•	•						
	Retaining Walls	•	•	•			•	•	•	•	•	•	•							•	•	•	•	•	•	•	•	
ROOFS & GUTTERS	Metal Roof	•																•	•	•	•	•						
	Concrete Gutters	•	•	•			•											•	•	•	•	•	•	•	•	•	•	
CHAMFERING AND REPAIR	Cheamfering				•	•																						
	Active Leakage Plugging				•	•						•	•															
	Repairing				•	•																						
	Cold Joint/Construction Joint Waterproofing				•	•						•	•	•	•	•	•											

For more information consult to Master Builders Solutions Yapı Kimyasalları San. ve Tic. Ltd. Şti. Technical Service



MasterSeal® 390

(Formerly known as Likit Membran®)

Description Of Product

MasterSeal® 390, is an acrylic resin based single part ready to use waterproofing material used on terraces, roofs, precasts, rain gutter and exterior surfaces.

Complies with EN 1504-2

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Inclined terrace roofs
- Concrete, zinc, and precast rain gutters
- Northern exteriors of silos, warehouses and buildings

Features And Benefits

- Ready to use.
- Applied by brush.
- UV resistant
- Elastic even in low temperatures.
- Gives high adherence.
- Easy and quick to apply.
- Resistant to freeze-thaw cycle.

- Can be painted.
- Does not contain solvent.

Coverage

MasterSeal® 390	Coverage
For 1 mm wet film thickness	1,36 kg/m ²
For 1 mm dry film thickness	1,48 kg/m ²
In drain pipes and rain gutters	2 - 3 kg/m ²
In terraces	3 - 4 kg/m ²

Packaging

5 kg plastic bucket
20 kg plastic bucket

Shelf Life

12 months after the production date under appropriate storing conditions. **MasterSeal® 390** freezes below 0°C. Opened packages have to be stored by tightly sealing the cover, and must be used in one week.

Technical Data

Material	Modified Polymer Resin Based Coating	LX 
Color	White	
Consistency	Brush	
Density	~1,36 kg/lt	
Substrate Temperature	+5°C +30°C	
Service Temperature	-20°C +80°C	
Elasticity	%150	
Period to Protect Surface	4-5 hours	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterSeal® 501

Description Of Product

MasterSeal® 501, is a cement based capillary crystalline waterproofing material that is applied against surface waters in old and new structures from negative and positive directions.

Complies with EN 1504-2

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Waterproofing of foundations and curtain walls
- Water tanks
- Tunnels
- Elevator pits
- Supporting walls, dams and harbors

Features And Benefits

- Easy to prepare and apply.
- Applied by brush.
- Long working time.

- Protects concrete.
- Resistant to negative and positive water pressure.
- Water vapor permeable.
- Resistant to freeze-thaw cycle.
- MasterSeal® 501 fills the capillary gaps by forming permanent (insoluble) crystals and enables water impermeability.

Coverage

First Coat: 1.00 kg/m² powder product
Second Coat: 1.00 kg/m² powder product

Packaging

20 kg polyethylene reinforced kraft bag

Shelf Life

6 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag and must be used in one week.

Technical Data

Material	Mineral Fillers, Polymer Modified Additives and Special Cement	KR 
Color	Grey	
Substrate Temperature	+5°C +30°C	
Service Temperature	-20°C +80°C	
Maturity Period	3-5 minutes	
Pot Life	20 minutes	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterSeal® 525

Description Of Product

MasterSeal® 525, is a cement and acrylic based two parts waterproofing material that forms an effective barrier against salts carried by water and gases in the atmosphere and is used on concrete and cement based surfaces.

Complies with EN 1504-2

Complies with EN 14891

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Waterproofing of foundations and curtain walls
- Retaining walls
- Terraces (can be used without protecting the top in under light weights. Consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti. Technical Service for details)
- Wetrooms like WC, bathroom, kitchen and balcony
- Swimming pools
- Drinking and other water tanks
- Facilities like spa and hamams
- Sea water channels
- Against salty water where water impermeability and protection is needed
- To protect concrete surfaces from carbonation and chlorine attacks
- Walking ways of marinas

Features And Benefits

- 1 mm thick **MasterSeal® 525** gives protection against carbonizing equivalent to over 80 cm concrete.
- Water impermeable, resistant to 7 bars positive water pressure.

- Perfect adhesion property.
 - Easy to prepare and apply.
 - Applied by brush or spraying machine.
 - Long working time.
 - White in color and resistant to UV rays.
 - Suitable for pedestrian traffic.
 - Water vapor permeable.
 - High durability.
 - Resistant to freeze-thaw cycle.
 - Highly resistant to carbon dioxide and chlorine ions.
 - Although traditional waterproofing materials require 7-28 days curing period, **MasterSeal® 525** can be applied on green concrete.
 - Can be safely used in drinking water tanks (has a test report).
- Chemical Analysis Laboratory and consists with BS 6920 Standard Analysis Report.

Coverage

First Coat: 1.50 kg/m² mixture

Second Coat: 1.50 kg/m² mixture

Third Coat: 1.00 kg/m² mixture

Packaging

33 kg set

Part A: 25 kg polyethylene reinforced kraft bag

Part B: 8 kg tin

Shelf Life

12 months after the production date under appropriate storing conditions. Part B of **MasterSeal® 525** freezes below 0°C. Opened packages have to be stored by tightly sealing the bag/cover and must be used in one week.

Technical Data

Material MasterSeal® 525 Part A MasterSeal® 525 Part B	Mineral Filler, Polymer Modified Additives and Special Cement Copolymer Acrylic Dispersion	
Color	Off White	
Adhesion Strength	≥1,50 N/mm ²	
Flexural Strength (EN 196-1)	≥3,00 N/mm ²	
Elasticity Modules (EN 13412)	≥2000 N/mm ²	
Water Penetration (DIN 1048)	7 bar Pressure No Leakage (2 mm dry film thickness)	
Capillary Water Absorption (TS EN 12808-5)	≤0,1 gr (after 4 hours)	
Water Vapor Coefficient	≥3,64x 10 ⁻⁴ cm ² /s	KR
Chlorine Ion Diffusion (ASTM C 1202)	260 Coulomb	
Chlorine Ion Diffusion Coefficient	1,04x10 ⁻⁷	
CO ₂ Diffusion Resistance	Sc ≥ 89 cm (1 mm dry film thickness)	
Substrate Temperature	+5°C +25°C	
Service Temperature	-20°C +80°C	
Maturity Period	3-5 minutes	
Pot Life	2 hours	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterSeal® 582

(Formerly known as Thoroseal® Standart)

Description Of Product

MasterSeal® 582, is a cement and acrylic based polymer two parts waterproofing coating used on concrete surfaces suitable for negative and positive applications.

Complies with EN 1504-2

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Wetrooms like WC, bathroom, kitchen and balcony
- Waterproofing of foundations and curtain walls
- Water tanks
- Tunnels
- Swimming pools
- Elevator pits
- Reinforced concrete pipes
- To protect concrete from water, carbonation and deicer salts

Features And Benefits

- Resistant to negative and positive water pressures (4 bar negative-7 bar positive).
- High durability.
- MasterSeal® 582 has capillary effect.
- Long working time.

Technical Data

Material MasterSeal® 582 Part A MasterSeal® 600 Part B	Mineral Fillers Polymer Modified Additives and Special cements Copolymer Acrylic Dispersion	
Color	Grey	KR
Adhesion Strength	≥1,50 N/mm ² (28 days)	
Resistance to Pressurized Water	4 bar (negative), 7 bar (positive)	
Water Vapor Permeability (H ₂ O)	86-120	
Substrate Temperature	+5°C +25°C	
Service Temperature	-20°C +80°C	
Maturity Period	3-5 minutes	
Pot Life	45 minutes	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.

- Non-shrinking and non-cracking.
 - Water vapor permeable.
 - Very high adhesion strength. Works together with the surfaces.
 - Easy to prepare and apply.
 - Resistant to freeze-thaw cycle.
 - Applied by brush or spraying machine.
- *Can be safely used in drinking water tanks (has a test report).
Chemical Analysis Laboratory, and consistent with BS 6920 Standard Analysis Report

Coverage

First Coat: 1.30 kg/m² mixture
Second Coat: 1.20 kg/m² mixture
Third Coat: 1.20 kg/m² mixture

Packaging

27 kg set
Part A: 25 kg polyethylene reinforced kraft bag
Part B: 2 kg tin

Shelf Life

12 months after the production date under appropriate storing conditions. MasterSeal® 600 is frozen under 0°C. Opened packages have to be stored by tightly sealing the bag/cover, and must be used in one week.



MasterSeal® 589

(Formerly known as Thoroseal® FX100 TR)

Description Of Product

MasterSeal® 589, is a cement and acrylic based two part flexible waterproofing coating used on concrete surfaces for negative-positive applications.

Complies with EN 1504-2

Complies with EN 14891

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Terraces (coating which is grey color should be protected)
- Soft water (pH 3 to 7) tanks used in textile industry
- Water tanks and swimming pools
- Elevator pits
- Wetrooms like WC, bathroom, kitchen, and balcony
- To protect concrete from water, carbonation and salts
- Facilities like spa and hamams

Features And Benefits

- Easy to prepare and apply.
- Applied by brush or spraying machine.
- Long working time.
- Resistant to negative and positive water pressure. (1 bar negative-1.5 bar positive)
- Water vapor permeable.
- Forms a perfect water impermeable, non-

deformable coating under screeds and ceramic tiles with high adhesion performance and flexible structure.

- High durability.
 - Suitable for pedestrian traffic.
 - **MasterSeal® 589** covers cracks up to 0.60 mm when applied as 2 mm thick and up to 1.20 mm
 - Highly resistant to carbon dioxide ions. Does not crack.
 - Resistant to freeze-thaw cycle.
 - White color has UV resistant.
 - Can be safely used in drinking water tanks (has a test report).
- *Chemical Analysis Laboratory, and consistent with BS 6920 Standard Analysis Report.

Coverage

First Coat: 1.50 kg/m² mixture Second Coat: 1.30 kg/m² mixture

Packaging

35 kg set
Part A: 25 kg polyethylene reinforced kraft bag
Part B: 10 kg tin

Shelf Life

12 months after the production date under appropriate storing conditions. Part B of **MasterSeal® 589** freezes below 0°C. Opened packages have to be stored by tightly sealing the bag/cover and must be used in one week.

Technical Data

Material MasterSeal® 589 Part A MasterSeal® 589 Part B	Mineral Fillers Polymer Modified Additives and Special cements Copolymer Acrylic Dispersion	
Color	Grey White	KR
Freeze - Thaw Resistance (ISO/DIS 4846.2)	No Deformation After 50 Cycles	
Adhesion Strength (28 days)	≥0,5 N/mm ²	
Resistance to Pressurized Water	0,1 bar (negative), 1.50 bar (positive)	
Capillary Water Absorption TS EN 12808-5)	≤0,10 g (after 4 hours)	
Substrate Temperature	+5°C + 30°C	
Service Temperature	-20°C +80°C	
Maturity Period	3-5 minutes	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterSeal® 591

(Formerly known as Waterplug®)

Description Of Product

MasterSeal® 591, is a high adherence, special cement and mineral filler containing, ready to use repair mortar that instantly sets and hardens by expanding when mixed with water and is used for stopping of active water leakages.

Complies with EN 1504-3 Class R2

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Repairs of static (non-moving) cracks
- Stopping of active water leakages
- Waterproofing of pipe and cable crossings
- Repairs of deformations on concrete
- Filling and sealing water leakages before waterproofing
- Filling tie-rod cavities inside molds
- Chamfering of corners, joints and repairing cold joints
- For fixing metal anchorage and connection parts

Features And Benefits

- Single part, only mixed with water.
- Stops active water leakages by setting instantly.

- Easy to use.
 - Expands and forms a watertight structure.
 - Highly resistant and stable.
 - Waterproofing materials can be applied on it after 15 minutes.
 - Does not cause corrosion of steel equipments chloride free.
 - Can be safely used in drinking water tanks. (has a test report)
- *Chemical Analysis Laboratory, and consistent with BS 6920 Standard Analysis Report.

Coverage

Varies

Packaging

5 kg plastic bucket

Shelf Life

6 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the cover and must be used in one week.

Technical Data

Material	Mineral Fillers and Special Cements		
Color	Grey		
Adhesion Strength (EN 1542)	≥0,50 N/mm ² (28 days)		
Compressive Strength	30 minutes ≥7 N/ mm ²	24 hours ≥10 N/mm ²	28 days ≥30 N/mm ²
Working Temperature	+5°C +25°C		
Pot Life	1-1,50 minutes		
Final Drying	2-3 minutes		

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterSeal® 596

Description Of Product

MasterSeal® 596, is a high adherence, special cement and mineral filler containing, ready to use repair mortar that instantly sets and hardens by expanding when mixed with water and is used for stopping of active water leakages. Especially recommended for winter applications.

Complies with EN 1504-3 Class R2

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Repairs of static (non-moving) cracks
- Stopping of active water leakages
- Waterproofing of pipe and cable crossings
- Repairs of deformations on concrete
- Filling and sealing water leakages before waterproofing
- Filling tie-rod cavities inside molds
- Chamfering corners, joints, and repairing cold joints
- For fixing metal anchorage and connection parts

Features And Benefits

- Single part, only mixed with water.
- Stops active water leakages by setting instantly.
- Easy to use.
- Expands and forms a watertight structure.
- Waterproofing materials can be applied on it after 15 minutes.
- Does not cause corrosion of steel equipments, chloride free.
- Can be safely used in drinking water tanks (has a test report).

*Chemical Analysis Laboratory and consistent with BS 6920 Standard Analysis Report

Coverage

Varies

Packaging

5 kg plastic bucket

Shelf Life

6 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the cover and must be used in one week.

Technical Data

Material	Mineral Fillers and Special Cements
Color	Grey
Compressive Strength	≥25 N/ mm ²
Working Temperature	+5°C +25°C
Pot Life	30 seconds

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterSeal® 6100 FX

Description Of Product

MasterSeal® 6100 FX, is a single component, cement based, elastic and flexible lightweight membrane for waterproofing and concrete protection. **MasterSeal® 6100 FX** is composed of specially selected cements, lightweight fillers, sand and special polymers in powder form.

WRAS approval number: 1509539
(for use in contact with potable water)

Fields Of Application

- For interior and exterior application
- As a waterproof lining for water retaining structures
- External waterproof lining for reservoir roof applications
- To provide foundation protection
- To protect concrete surfaces from carbonation and chloride attack
- For areas constantly submerged in water

Features And Benefits

- One-component formulation with high elastic properties: Only needs to mix with water. Reduces storage and transport costs as well as packaging waste.
- Elastic down to -10 °C: High durability and protection with reduced cracking due to embrittlement.
- Low density/Lightweight formulation: Low consumption providing high yield (more than 50% compared to ordinary waterproofing slurries) and time saving in application.
- Rapid curing: Allows early serviceability. Tanks can be filled after only 3 days.
- Waterproof at 2 mm thickness: Resists up to 5 bars (50 meter head) of water pressure.
- Excellent adhesion

- Elasticity maintained in immersion
- Breathable: Water vapor permeable.
- High resistance to carbon dioxide diffusion: Protects concrete from rebar corrosion. A 1mm coating provides
- Anti-carbonation cover equivalent up to 40 cm of concrete.
- Sulphate resistant
- No ammonia smell: Can be applied in closed spaces.
- Reduced efflorescence appearance risk
- Contributes to LEED credits: contains more than 5% of recycled material.
- UV resistant, light grey and white versions available: can be used as final coating in exterior applications.

Coverage

Approximately 1.2 Kg of mixed product (approx. 0.9 Kg of powder product) per m² and mm of thickness. For a 2 mm thickness application, this means that one bag of 15 Kg covers approx. 8 m².

Consumption is influenced by the roughness of the substrate. On rough substrates the quantities required will increase significantly. In these cases, to obtain real consumption calculation based on in-situ tests might be required.

Packaging

MasterSeal® 6100 FX is available in 15 Kg bags.

Shelf Life

12 months in unopened original bags, if stored at above mentioned storage conditions.



MasterSeal® 6100 FX

Technical Data

Property	Standard	Unit	Data
Density of mixed material	EN 1015-6	g/cm ³	approx. ~1,20
Mixing water	-	l/bag	5,6-6,2 (0,38-0,41l/kg)
Mixing time	-	minutes	Approx. ~3
Maturing time	-	minutes	1 - 2
Workability time	-	minutes	Approx ~45 (+20°C) Approx ~30 (+30°C)
Applicable thicknesses	-	mm	2(up to 5 for reprofiling)
Application temperature (substrate and material)	-	°C	from +5°C - +30°C
Service temperature	-	°C	from -20°C - +60°C
Exposure to mechanical loads after	-	days	3
Exposure to water pressure after	-	days	3
Tensile strength (28 days)	EN ISO 527-1/-2	Mpa	1,6
Elongation (28 days)	EN ISO 527-1/-2	%	29 (dry storage)
Capillary water absorption	EN 1062-3	Kg/m ² h ^{0,5}	0,02
Positive side waterproofing	EN 12390-8	bar	up to 5 (2 mm thickness)
Negative side waterproofing	based on UNI 8298-8	bar	up to 2,5 (2 mm thickness)
Static crack bridging:	EN 1062-7	mm	up to 2,0 (+20°C) up to 0,6 (-10°C)
Static crack bridging with conditioning	EN 1062-7 EN 1062-11	-	A4 (+20°C) A3 (-10°C)
Dynamic crack bridging with conditioning	EN 1062-7 EN 1062-11	-	B 3,1 (+20°C) B 3,1 (-10°C)
Water vapour permeability	EN ISO 7783-1/2	S _D	1,3 m (Class I, required < 5 m)
CO ₂ Permeability	EN 1062-6	S _D	104 m (required > 50m)
Adhesion strength	EN 1542	N/mm ²	2,0
Adhesion strength after freeze-thaw cycles (50) with de-icing salts and Thunder Shower cycling (10)	EN 13687-1 EN 13687-2	N/mm ²	1,7
Abrasion resistance	EN ISO 5470-1	mg	1150 (required < 3000 m)
Impact resistance:	EN ISO 6272-1	Nm	5 (Class I, required > 4)
Resistance to salt solutions:			
Synthetic seawater	based on DIN 50905-4	-	No change observed in the product after 175 days of permanent immersion
Salt mix solution 30 g/l NaCl, NaNO ₃ , and Na ₂ SO ₄	based on WTA – Merkblatt	-	
KJ solution (10 g/l)	-	-	
NaSO ₄ solution	based on Wittekindt-process	-	
Tap water	-	-	

Note: Hardening times are measured at 21°C ± 2°C and 60% ± 10% relative humidity. Higher temperatures and/or higher R.H. can shorten these times, and vice versa. Technical data shown are statistical results and do not correspond to guaranteed minima. Tolerances are those described in appropriate performance



MasterSeal® 620

(Formerly known as Masterseal® 420)

Description Of Product

MasterSeal® 620, is a bitumen/rubber latex emulsion based perfectly adhering waterproofing material that forms a seamless, flexible, damp proof, and vapor proof membrane.

Complies with EN 15814

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications from the direction of coming water
- For waterproofing on roofs, insulations with felt, and asphalt, lead, zinc, aluminum, concrete, light concrete, wooden, slate, wavy sheet surfaces
- Retaining walls
- Waterproofing of main curtains and culverts
- Insulation of parts of artworks under the soil against water and moisture
- As water and moisture barrier for the surfaces of interior and exterior walls that contact with soil
- In adhesion of heat insulation sheets

Features And Benefits

- Single part.
- Ready to use and easy to apply.
- Applied by brush or spray machine.
- Can be applied on fresh concrete and slightly damp surfaces.
- Forms seamless, permanent, moisture and water proof coating.
- Resistant to chemicals and salt solution in the soil.
- Resistant to freeze-thaw cycle.
- Does not contain solvents and it is environmental friendly.

Packaging

30 liter plastic bucket

Shelf Life

24 months after the production date under appropriate storing conditions. **MasterSeal® 620** is frozen under 0°C. Opened packages have to be stored by tightly sealing the cover and must be used in one week.

Technical Data

Material	Bitumen-Rubber Latex Emulsion
Color	Brown-Black
Consistency	Brush Consistency
Density	1,01 kg/lit
Substrate Temperature	+5°C + 30°C
Service Temperature	-30°C + 80°C

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.

Coverage

Areas of Application	Number of Coats	1 st coat	2 nd coat	3 rd coat
Waterproofing and protective coating of structures: Bridge abutments, retaining walls, cuverts, concrete or brick foundations, concrete columns and beams	2 layers	0,50 lt/m ²	0,45 lt/m ²	-
Sandwich membrane	2 layers	0,65 lt/m ²	0,65 lt/m ²	0,45 lt/m ²
Inner and outer reinforced concrete curtain walls	3 layers	0,45 lt/m ²	0,45 lt/m ²	0,65 lt/m ²
For waterproofing insulation on surfaces like roofs felted insulations asphalt lead zinc aluminum concrete light concrete wood slate wavy sheet	3 layers	1,00 lt/m ²	0,65 lt/m ²	-
As vapor barrier	2 layers	1,00 lt/m ²	0,65 lt/m ²	-
In adhesion of heat insulation sheets	1 layers	0,80 lt/m ²	-	-
As key primer on special surfaces	2 layers	0,22 lt/m ²	0,22 lt/m ²	-

When necessary, MasterSeal® 620 is diluted 1/6 ratio (0.02 liters MasterSeal® 620 + 0.12 liters water) and applied as 0.14 liter/m² primer layer. During the application, coverage can decrease up to 50% due to surface roughness. It should be dilution with 1/1 or 1/2 times water when you use as a primer of bituminous sheet membrane applications



MasterSeal® 645

(Formerly known as Masterseal® 445)

Description Of Product

MasterSeal® 645, is cement and modified bitumen emulsion based, two parts, pasty consistency, high durability waterproofing coating.

Complies with EN 15814

Fields Of Application

- For vertical and horizontal applications
- For tanking against pressurised water
- For foundations and curtain walls (Tanking)
- For waterproofing of retaining walls
- For bonding of insulation boards. (Perimeter insulation)
- For waterproofing of flowerpots

Features And Benefits

- Suitable for horizontal and vertical applications
- Bridges shrinkage cracks with its elastic behaviour.
- Easy to prepare and use.
- Longer pot life for extended workability.
- Resistant to freeze thaw cycle.
- Resistant to bacterial attacks, salts and acids in the soil.
- Easy to apply with trowel and brush.

Coverage

Consumption per m ²	28 kg Set
~ 3,00 kg/m ²	~ 9,3 m ²

Consumption per m ²	32 kg Set
~ 3,00 kg/m ²	~ 10,6 m ²

Packaging

28 kg set
Part A: 21 kg plastic bucket
Part B: 7 kg polyethylene bag

32 kg set
Part A: 24 kg plastic bucket
Part B: 8 kg polyethylene bag

Shelf Life

24 months after the production date under appropriate storing conditions. **MasterSeal® 645** may freeze under 0°C. Tightly seal the cover of the opened pails and do not store more than one week.

Technical Data

Material MasterSeal® 645 Part A MasterSeal® 645 Part B	Rubber and Polymer Modified Bitumen Emulsion Dry mixture of special cement and sand	
Color	Brown (after drying: black)	KR
Consistency	Pasty	
Density of Mixture	1,09 kg/lt	
Substrate Temperature	+5°C +30°C	
Temperature Resistance (after curing)	-20°C +80°C	
Exposure to Water	~48 hours	
Open Time	~1 hour	
Curing Time	~24 hours	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterSeal® 665

(Formerly known as Masterseal® 465)

Description Of Product

MasterSeal® 665, is rubber modified bitumen emulsion based, one component, pasty consistency, high durability, ready to use, thick waterproofing coating.

Complies with EN 15814

Fields Of Application

- For vertical and horizontal applications
- For tanking soil covered foundations and curtain walls.
- For waterproofing of retaining walls.
- For bonding of insulation boards. (Perimeter insulation).

Features And Benefits

- Suitable for horizontal and vertical applications.
- Bridges shrinkage cracks with its elastic behaviour
- Ready to use
- Solvent free

Technical Data

Material	Rubber Modified Bitumen Emulsion
Color	Brown (after drying: black)
Consistency	Pasty
Density of Mixture	1,10 kg/lit
Substrate Temperature	+5°C +30°C
Temperature Resistance (after curing)	-20°C +80°C
Exposure to Water	~48 hours
Open (working) Time	~2 hour
Curing Time	~24 hours

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.

- Longer pot life for extended workability
- Resistant to freeze thaw cycle
- Resistant to bacterial attacks, salts and acids in the soil.

Coverage

Consumption per m ²	30 kg Bucket
~ 3,00 kg/m ²	~ 10,0 m ²

Packaging

30 kg plastic pails
220 kg barrel

Shelf Life

24 months after the production date under appropriate storing conditions. **MasterSeal® 665** may freeze under 0°C. Tightly seal the cover of the opened pails and do not store more than one week.



MasterSeal® 694

(Formerly known as Masterseal® 494)

Description Of Product

MasterSeal® 694, is cement and modified bitumen emulsion based, two parts, pasty consistency, high durability waterproofing coating.

Complies with EN 15814

Fields Of Application

- For vertical and horizontal applications
- For positive waterproofing applications
- For foundations and curtain walls (Tanking)
- For waterproofing of retaining walls
- For bonding of insulation boards (Perimeter insulation)
- For waterproofing of flowerpots

Features And Benefits

- Suitable for horizontal and vertical applications.
- Bridges shrinkage cracks with its elastic behavior.
- Easy to prepare and use.
- Longer pot life for extended workability
- Resistant to freeze thaw cycle.
- Resistant to bacterial attacks, salts and acids in the soil.
- Easy to apply with brush.

Coverage

Consumption per m ²	28 kg Set
~ 3,00 kg/m ²	~ 9,3 m ²

Consumption per m ²	32 kg Set
~ 3,00 kg/m ²	~ 10,6 m ²

Packaging

28 kg set
Part A: 21 kg plastic bucket
Part B: 7 kg polyethylene bag

32 kg set
Part A: 24 kg plastic bucket
Part B: 8 kg polyethylene bag

Shelf Life

24 months after the production date under appropriate storing conditions. **MasterSeal® 694** may freeze under 0°C. Tightly seal the cover of the opened pails and do not store more than one week.

Technical Data

Material MasterSeal® 694 Part A MasterSeal® 694 Part B	Bitumen Rubber Polymer Modified Bitumen Emulsion Dry Mixture of Special Cement and Sand	
Color	Brown	KR
Consistency	Pasty	
Density of Mixture	1,02 kg/lit	
Substrate Temperature	+5°C +30°C	
Temperature Resistance (after curing)	-20°C +80°C	
Exposure to Water	48 hours	
Open (working) Time	~1 hour	
Curing Time	24 hours	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time



MasterSeal® M 251

(Formerly known as Conipur® 251)

Description Of Product

MasterSeal® M 251, is a polyurethane based single component low viscosity coating and waterproofing material.

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications.
- Terraces and balconies.
- On concrete and ceramic surfaces with suitable primer.

Features And Benefits

- UV resistant.
- Perfect adherence to rough and smooth surfaces.
- Forms a resistant and flexible film layer by

curing with air.

- Does not change the appearance of the surface applied
- Ability to bridge shrinkage cracks with its flexible structure.
- Easy to apply.

Packaging

Colored: 12.5 kg tin

Transparent: 12 kg tin

Shelf Life

May be stored for 6 months in cool and dry environment under appropriate storing conditions.

Technical Data

Material	Polyurethane	
Color	Transparent RAL Colors	
Ratio of Hard Material	%63 (Transparent) %70 (Colored)	
Density	1,02 kg/litre (Transparent) 1,10 kg/litre (Colored)	
Viscosity	1500 mPa (Transparent) 2800 mPa (Colored)	
Shore A Hardness (after 7 days)	90	LX
Tensile Strength (after 7 days) (DIN 53507)	9 N/mm ²	
Elongation in Rupture (after 7 days)	%200	
Resistant to Chemicals	7 days	
Period to Wait Before Re-coating	3 days	
Opening to Service		
+10°C	min. 8 hours - maks. 3 days	
+20°C	min. 6 hours - maks. 2 days	
+30°C	min. 5 hours - maks. 2 days	



Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterSeal® M 640

(Formerly known as Masterseal® 640 Membrane)

Description Of Product

MasterSeal® M 640, is a single part, polyurethane based, elastomeric coating for roof waterproofing.

Fields Of Application

- Applicable for both inside and outside use.
- Can be employed on concrete and cement mortar.
- Waterproofing of roofs, balconies and terraces.

Contact the Technical Service of your local Master Builders Solutions Construction Chemicals office regarding any application required not mentioned here.

Features And Benefits

- High elasticity and flexibility
- Excellent adhesion to concrete and mortar
- Fully bonded system
- Once hardened it is impermeable to water and carbon dioxide
- Tar free
- Easy to apply. Single part and low viscosity
- Excellent crack bridging capacity even at low temperatures
- Monolithic-no laps, welds or seams

- High water vapor permeability-low risk of blistering
- Excellent mechanical properties
- Resistant to standing water
- Can be re-coated after only a few hours
- Can be applied on green roof due to root resistance properties

Coverage

Approximately 0,75 to 1,25 kilograms per square metre are required per coat. These consumptions are theoretical and can vary according to the application conditions. It is essential to carry out representative trials on site to evaluate the exact consumption.

Packaging

25 kg tin

Shelf Life

Store in cool and dry warehouse conditions. Shelf life in these conditions is 12 months in unopened original containers.

Technical Data

Material	Polyurethane
Color	Grey White
Density	Approx. 1,3 gr/cm ³
Shore A Hardness	Approx. 65
Tensile Strength	>4 N/mm ²
Adhesion to Concrete	>2 N/mm ² (concrete cohesive failure)
Application Temperature (Support and Material)	From +5°C +35°C
Permissible Moisture on the Support	Maks. 4%
Water Vapour Permeability	Approx 25 gr/m ² /days
Re coating Interval	Min. 12 hours Maks. 36 hours
Open to Pedestrian Traffic After	Min. 12 hours Maks. 36 hours
Fully Cured	Approx After 7 days
Service Temperature	-20°C +80°C
Crack Bridging	Up to 2mm
Elongation At Break	Approx 650%

Hardening times are measured at 22°C and 65%. Higher temperatures and/or higher R.H. can shorten these times, and vice versa. Technical data provided are outcome of statistical results and do not represent guaranteed minima.



MasterSeal® M 665

Description Of Product

MasterSeal® M 665, is a MS polymer based, one component, elastic waterproofing and concrete protection membrane which can be applied by brush or roller.

Complies with EN 1504 - 2

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Roofs
- Terraces
- Balconies
- Protection of polyurethane thermal insulation foam
- For waterproofing and protection of concrete bridge deck*

*Contact the Technical Service of **Master Builders Solutions** Construction Chemicals office regarding any application required not mention here

Features And Benefits

- Excellent crack - bridging capacity up to 5 mm
- Single part, ready and easy to use
- Can be applied on damp substrates
- Provides easy solutions for tough details

- Can be applied by brush or roller
- Resistance to water and humidity
- High water vapor permeability
- High elasticity and flexibility
- No bitumen, solvent or isocyanate
- UV and weather resistant.
- Can be applied without primer depending on the structure of substrates*

* For different substrates please contact with Technical Department of Master Builders Solutions Construction Chemicals

Consumption

About 2,6 – 3,0 kg/m² for two layers depending on surface roughness.

Packaging

14 kg plastic buckets (7kg+7kg) 1 kg tin

Shelf Life

9 months starting from the date of production in proper storage conditions. **MasterSeal® M 665** freezes at temperatures below 0°C.

Technical Data

Property	Standard	Unit	Value
Product Chemistry	-	-	MS Polymer
Color	-	-	Grey
Density	-	gr/cm ³	1,44
Crack Bridging	-	mm	Up to 5
Elongation At Break Strength	DIN 53504	%	250
Viscosity	-	mPa.s	15000
Shore A	EN ISO 868	-	40
Tear Strength	ASTM D 624	N/mm ²	2,76
Permeability of Water Vapour	EN ISO 7783	m	Sd: 0,868 (Class I: sd<5m)
Capillary Absorption and Permeability to Water	EN 1062-3	Kg/m ² h ^{0,5}	0,009 (w < 0,1 kg/m ² . h ^{0,5})
Tensile Strength	DIN 53504	N/mm ²	>0,9
Application Temperature	-	°C	+5 to +35
Service Temperature	-	°C	-25 to +80
Pot-Life	-	hour	~1
Re-coating interval	+23°C +10°C	Hours hours	min 8 min 24

* Typical values were obtained as a result of experiments at +23°C, 50% relative humidity conditions.



MasterSeal® M 689

Description Of Product

MasterSeal® M 689, is a solvent free, two component waterproofing membrane. It is highly reactive and can only be applied by special two component hot spray equipment.

Fields Of Application

MasterSeal® M 689 is used in a variety of waterproofing applications, especially where a high degree of chemical and mechanical resistance is required.

Features And Benefits

- Broadcast sand not normally required
- Low emission (conform to AgBB)
- Low viscosity
- Easy to apply
- Excellent penetration
- Seals pores and capillaries
- Excellent bond to substrate
- High moisture tolerance

Coverage

MasterSeal® M 689 is normally applied at 2.2 – 2.5 kg/m². This corresponds to a thickness of approx. 2.0 – 2.3 mm. Details require a higher coverage rate up to 4.0 kg/m² or more.

*The above consumption figures are intended as a guide only and may be higher on very rough or porous substrates

Packaging

Part A: 200 kg in 200 l drums

Part B: 225 kg in 200 l drums

Shelf Life

Store in cool and dry warehouse conditions. Shelf life in these conditions is 12 months in unopened original containers.

Technical Data

Properties	Standard	Data	Unit
Chemical base	-	100% Polyurea	-
Mixing ratio:	A : B	100 : 100 100 : 112	by volume by weight
Density (at 20 °C)	Part A Part B	1.00 1.11	g/cm ³
Viscosity (at 25 °C)	Part A Part B	220 800	mPas
Processing temperature Flow heater, Hose heater)	Part A Part B	70 – 80 70 – 80	°C °C
Processing pressure	Part A Part B	120 – 200 120 - 200	bar bar
Substrate and ambient temperatures (during application)	-	min. 5 max. 35	°C °C
Maximum relative humidity (during application)	-	90	%
Maximum substrate moisture (during application)	-	4	%
Reaction time (sprayed)	-	5-7	sec.
Dry to touch after	at +20°C	30	seconds
Ready for pedestrian traffic after	at +20°C	0,5	Hours
Fully cured ready for car traffic after	at +20°C	12	Hours
Exposure to chemicals after	at +20°C	24	Hours



MasterSeal® M 790

Description Of Product

MasterSeal® M 790, is a two-component crack-bridging membrane based on Xolotec - Technology providing high chemical and mechanical resistance.

Fields Of Application

MasterSeal® M 790, is used in waterproofing applications where a high level of chemical resistance is required.

This includes:

- Waste water treatment plants both in the inflow and outflow areas.
- Sewage effluent pipelines.
- Biogas plants.
- Secondary containment.

MasterSeal® M 790 can be applied on:

- Horizontal and vertical substrates.
- Internal and external areas
- Concrete, cementitious mortar or steel substrates
- Reinforced concrete to protect it against carbonation or chloride induced corrosion and for protection against chemical attack in secondary containment bunds in chemical and petrochemical industries.

Contact your local Master Builders Solutions representative for any other applications not listed here

Features And Benefits

- Easy hand application by roller or trowel
- Continuous membrane: monolithic – no laps, welds or seams
- Excellent chemical resistance – including high concentrations of biogenic sulphuric acid.
- Waterproof and resistant to standing water.
- Fully bonded to substrate: can be applied to a wide range of substrates with the appropriate primer.
- Moisture tolerant: can be applied on substrates with high residual humidity.
- High water vapour permeability: low risk of blistering.
- High resistance to carbon dioxide diffusion: Protects concrete from rebar corrosion.
- High tear, abrasion and impact resistance: Withstands

traffic and use in areas exposed to mechanical damages

- Tough but flexible and crack bridging.
- High durability and protection with reduced cracking due to embrittlement
- Thermoset: does not soften at high temperatures.
- Excellent adhesion on different substrates (concrete, steel).
- Weatherproof: proven thundershower and freeze / thaw resistance, can be applied outdoors without additional top coating.
- Does not contain solvents.
- Can be spray-applied with selected 2-component spray machines (please contact our technical service for details)

Coverage

The consumption of **MasterSeal® M 790** is approximately 0.4 kg/m² per coat. A minimum of two coats is required, depending on the condition and porosity of the substrate and requested film thickness. A two coat application with a total consumption of approximately 0.8 kg/m² will provide a dry film thickness of approx. 0.6 mm.

In high chemically demanding environments (e.g. waste water treatment plants) and/or in harsh, abrasive conditions, a dry film thickness of 0.9 mm is recommended. Therefore a minimum consumption of 1.0 1.2 kg /m² in two or three layers has to be applied. These consumptions are theoretical and can vary according to the absorption and roughness of the substrate. It is essential to carry out representative trials on site to evaluate the exact consumption.

Packaging

MasterSeal® M 790 is available in 5 kg Kits consisting of 1.5 kg Part A and 3.5 kg Part B 48.3 kg Kits consisting of 14.5 kg Part A and 33.8 kg Part

Shelf Life

Shelf life under these conditions is 12 months for both parts.



MasterSeal® M 790

Technical Data

Property	Standard	Unit	Data
Density of mixed material	EN ISO 2811-1	g/cm ³	approx. 1.2
Viscosity of mixed material	EN ISO 3219	mPas	approx. 2800
Application temperature (substrate and material)	-	°C	from +5 to +30
Maximum substrate moisture (during application)	-	-	not restricted, but surface must be visibly dry
Maximum relative humidity (during the application)		%	≤ 75
Pot-life (5 kg kit)	at +20 °C at +10 °C at +30 °C	minutes	approx. 20 approx. 25 approx. 15
Re-coating interval	at +20 °C	hours	approx. 8
Exposure to water pressure after	at +20 °C	hours	24
Fully cured after	at +20 °C	days	7
Service temperature (dry)	-	°C	-20 to +80
Service temperature (wet)	-	°C	up to +60
Adhesion to concrete (dry) after 28 d	EN 1542	N/mm ²	2.9
Adhesion to concrete (wet) after 28 d	EN 13578	N/mm ²	2.2
Adhesion to steel (without primer)	EN 12188	N/mm ²	>7.0
Adhesion strength after freeze-thaw cycles	EN 13687-1	N/mm ²	2.7
CO ₂ permeability SD	EN 1062-6	m	206 (required > 50)
Water vapour permeability SD	EN ISO 7783	m	126 (class III SD > 50)
Capillary water absorption	EN 1062-3	kg/m ² ·h ^{0.5}	0.0005 (required < 0.1)
Behaviour after artificial weathering (2000 h)	EN 1062-11	-	no blistering, cracking or flaking; colour change
Tensile strength	EN ISO 527-1/-2	N/mm ²	>20
Abrasion resistance - Taber test (mass loss)	EN ISO 5470 -1	mg	194 (required < 3000)
Impact resistance	EN ISO 6272/2	Nm	24.5 (class III > 20)
Shore D hardness after 7 d	EN ISO 868/07	-	80
Static crack bridging	EN 1062-7	Class	A3 (+ 23°C) A2 (+70°C, dry), A2 (-10°C)
Dynamic crack bridging	EN 1062-7	Class	B3.1 (23°C) B2 (-10°C)
Elongation at break	DIN 53504	%	20

Note: Hardening times are measured at 21°C ± 2°C and 60% ± 10% relative humidity. Higher temperatures and/or higher relative humidity can shorten these times, and vice versa. Technical data shown are statistical results and do not correspond to guaranteed minima. Tolerances are those described in appropriate performance.



MasterSeal® M 800

(Formerly known as Conipur® M 800)

Description Of Product

MasterSeal® M 800, is a two component solvent free, polyurethane based waterproofing membrane with crack bridging capability. Since it is very reactive, it can only be applied with a special spray equipment.

Complies with EN 1504-2

Fields Of Application

- Roofs, terraces and terrace gardens
- Aircraft hangars
- Tunnels
- Collecting tanks
- Underground water tanks
- Insulation and coating of car park decks
- Pools
- Channels
- Warehouses

Features And Benefits

- High mechanical strengths.
- Can be applied both to horizontal and vertical surfaces.
- Provides easy solutions in complicated details.
- Used safely with out attending to the solutions for corner, side and joint.
- Quick application and curing.
- Provides monolithic application, no joints, laps etc details.
- Can be adhered to many surfaces with the

right primer.

- 100% adhesion to the substrate.
- Low risk of blistering owing to water vapor permeability.
- Crack bridging properties.
- Resistant to standing water.
- Solvent free.

Coverage

1.8-2.2 kg/m²

In certain conditions, the Coverage may increase up to 4.0 kg/m²

Packaging

Part A: 210 kg drum

Part B: 220 kg drum

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

MasterSeal® M 800 Part A	Polyurethane resin
MasterSeal® M 800 Part B	Polyurethane hardener
Color	Grey
Mixing Ratio	100/73 (weight) - 100/70 (volume)
Density	
Part A	1,06 g/cm ³
Part B	1,08 g/cm ³
Viscosity	
Part A	2400 mPa.s
Part B	1800 mPa.s
Shore A hardness (28 days)	80
Tensile Strength (DIN 53504)	10 N/mm ²
Tear Strength (DIN 53504)	18 N/mm ²
Breaking Elongation	%400
Gel Time (Hand Mixed)	10-15 seconds
Substrate Temperature	Min. +5°C max. +35°C
Service Temperature	-40°C +120°C (for short terms +250°C)

The above figures are valid for +23°C and intended as a guide only and should not be used as a basis for specifications



MasterSeal® M 808

Description Of Product

MasterSeal® M 808, is a two component elastic polyurethane membrane, with 100% solids formulation, high chemical and abrasion resistance. Approved for direct contact with potable water and foodstuff (*).

Fields Of Application

- Water towers, storage tanks or any other water retaining structures.
- Interior coating to drinking water tanks.
- Storage tanks containing foodstuffs etc.
- Waste water treatment plants (urban and industrial), both in the inflow and outflow areas.
- Sewage effluent pipelines.
- Steel and concrete pipes.

MasterSeal® M 808 can be applied on:

- Horizontal and vertical substrates.
- Internal and external areas.
- Concrete, cementitious mortar or steel substrates.
- Reinforced concrete to protect it against carbonation or chloride induced corrosion and for protection against chemical attack in secondary containment bunds in chemical and petrochemical industries

Features And Benefits

- Can be applied on vertical and horizontal surfaces.
 - Easy to apply by roller or air-less spray equipment.
 - Waterproof.
 - Resistant to standing water.
 - Elastic, flexible and crack-bridging.
 - High chemical resistance.
- (*) check local regulations regarding contact to potable water and foodstuff
- Protects concrete against carbonation and rebar corrosion: Once hardened it is impermeable to water and carbon dioxide.

- Excellent mechanical and elastic properties (elongation, tensile and tear strength, abrasion).
- Excellent adhesion on different substrates (concrete, steel).
- Excellent freeze/thaw resistance.
- UV resistant
- Thermoset – does not soften at elevated temperatures.
- 100% solids formulation, no risk for the environment and operative caused by solvent vapours.

Coverage

The consumption of **MasterSeal M 808** is approximately 0.4 – 0.8 kg/m², in two coats, depending on the condition and porosity of the substrate and requested film thickness This will provide a dry film thickness of 0.3 to 0.6 mm

In harsh, abrasive environments it is important to apply a total minimum thickness of at least 0.5 mm in order to obtain best performance. In high chemically demanding environments (e.g. waste water treatment plants) a minimum thickness of 1 mm is recommended. Therefore, a minimum consumption of 1.2 Kg/m² in two or three layers must be applied.

These consumptions are theoretical and can vary according to the absorption and roughness of the substrate. It is essential to carry out representative trials on site to evaluate the exact consumption

Packaging

MasterSeal M 808, is available in 10 kg and 5 kg units.

Shelf Life

Shelf life under these conditions is 12 months for Part A and Part B. See, in any case "Best before....." label.



MasterSeal® M 808

Technical Data

Property	Standard	Unit	Data
Density of mixed material	EN ISO 2811-1	g/cm ³	approx. 1.2
Viscosity	ISO cup n° 8	s	32
Application temperature (substrate and material)	-	°C	from +10 to +35
Maximum substrate moisture (during application)	-	%	≤ 4
Maximum relative humidity (during the application)	-	%	≤ 70
Pot-life (10 kg kit)	at +20 °C	minutes	approx. 20 - 25
Re-coating interval	at +20 °C	hours	6-24
Dry to touch	at +20 °C	hours	approx. 6
Exposure to water pressure after	at +20 °C	days	3
Fully cured after	at +20 °C	days	7
Service temperature (dry)	-	°C	- 20 to +80
Service temperature (wet)	-	°C	- 20 to +50
Adhesion to concrete after 28 d	EN 1542	N/mm ²	3.8
Adhesion to steel	EN 12636	N/mm ²	>10
Adhesion strength after freeze-thaw cycles	EN 13687-1	N/mm ²	2,6
CO ₂ permeability SD	EN 1062-6	m	74 (required > 50)
Water vapour permeability SD	EN ISO 7783	m	6.2 (class II 5 < SD < 50)
Capillary water absorption	EN 1062-3	kg/m ² ·h ^{0.5}	0.001 (required < 0.1)
Behaviour after artificial weathering	EN 1062-11	-	No changes
Tensile strength	EN ISO 527-1/-2	N/mm ²	> 20
Abrasion resistance	EN ISO 5470 -1	mg	Mass loss < 350 (required < 3000)
Impact resistance	EN ISO 6272/2	Nm	20
Shore D hardness after 7 d	EN ISO 868/07	-	70
Static crack bridging	EN 1062-7	class	A4 (+23°C) A3 (-10°C) A2 (-20°C)
Dynamic crack bridging	EN 1062-7	class	B2 (+23°C) B2 (-20°C)
Elongation at break	DIN 53504	%	60
Cathodic disbondment	ASTM G95	mm	3.8
Mandrel Bend Test	ASTM D522 (180°)	-	Pass
Dielectric breakdown voltage	ASTM D149	V/mil	251.1
Salt spray test (500h & 500 microns)	EN ISO 4628	-	Pass



MasterSeal® M 811

Description Of Product

MasterSeal® M 811, is a two component polyurea hybrid waterproofing membrane. It is high reactive and needs to be applied by special, two component spray equipment (Mixing ratio 100 : 100 by volume).

Fields Of Application

MasterSeal® M 811 is used in a wide range of water- proofing applications such as car park decks, podium decks, cut and cover tunnelling and basement waterproofing. It is also used in some secondary containment applications.

Using the appropriate primer, **MasterSeal® M 811** can be applied to most substrates including concrete, steel, bitumen cement screed, glass reinforced polyester, timber etc

Features And Benefits

- fast reacting,
- high build capability
- application to vertical surface without runs
- easy application to complicated details
- fast installation
- monolithic – no laps, welds or seams
- fully bonded
- high water vapour permeability – low risk of blistering
- excellent mechanical properties

- excellent crack bridging
- resistant to puncture
- resistant to standing water
- thermoset–does not soften at elevated temperatures
- remains elastic at low temperatures;Tg approx -45 °C
- solvent free

Coverage

MasterSeal® M 811, is normally applied at 2.0 – 2.5 kg/m² This corresponds to a thickness of approx. 2,0 – 2,5 mm. Details require a higher coverage rate up to 4.0 kg/m² or more

Packaging

Part A 210 kg in 200 l barrels
Part B 220 kg in 200 l barrels

Shelf Life

For maximum shelf life under these conditions see "Best before. " label

Technical Data

Property	Standard	Unit	Data
Chemical base	-	Polyurea hybrid	-
Mixing ratio	A : B	100 : 100 100 : 106	by volume by weight
Density (at 23 °C'de)	-		
Component A	-	1.06	g/cm ³
Component B	-	1.08	g/cm ³
Viskozite (at 23 °C'de)	-		
Component A	-	1725	MPas
Component B	-	1800	mPas
Reaction time (sprayed)	-	10 – 15	Sec.
Fully cured at 23 °C	-	2	d
Processing temperature (Flow heater, Hose heater)	Component A Component B	70 – 75 70 – 75	°C °C
Processing pressure	Component A Component B	130 - 180 130 - 180	bar bar
Substrate and ambient temperatures	-	min. 5 max. 35	°C °C
Permissible relative humidity	-	max. 85	%

*Values are intended as a guide only and need to be defined individually referring to machine used.



MasterSeal® M 860

(Formerly known as Conipur® M 860)

Description Of Product

MasterSeal® M 860, is a two component, solvent free, polyurethane based waterproofing membrane with crack bridging capability.

Complies with EN 1504-2.
Complies with EN 13813.

Fields Of Application

- Roofs, terraces and terrace gardens
- Aircraft hangars
- Tunnels
- Collecting tanks
- Underground water tanks
- Insulation and coating of car park decks
- Pools
- Channels
- Warehouses

Features And Benefits

- High mechanical strengths.
- Applied both to horizontal and vertical surfaces.
- Provides easysolutionsincomplicateddetails.
- Used safely without attending to the solutions for corner, side and joint.
- Quick application and curing.

- Provides monolithic application, no joints or laps.
- Can be adhered to many surfaces with the right primer.
- 100% adhesion to the substrate.
- Low risk of blistering owing to water vapour permeability.
- Crack bridging properties.
- Resistant to standing water.
- Solvent free.

Coverage

1,35 kg/m²

Packaging

30 kg set
Part A: 10.7 kg drum Part B: 19.3 kg drum

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

MasterSeal® M 860 Part A	Polyurethane Resin
MasterSeal® M 860 Part B	Polyurethane Hardener
Density	1,35 kg/litre
Viscosity	5200 mPa.s
Shore A Hardness	75
Tensile Strength DIN53504	15 N/mm ²
Elongation DIN53504	700%
Tear Strength DIN53515	21 N/mm
Working Time	10°C 35 min. 25°C 25 min. 30°C 15 min.
Re-coating Interval	10°C Min. 8 h Maks. 2 d 20°C Min. 5 h Maks. 1 d
Substrate and Ambient Temperatures	Min. 5°C Maks. 30°C
Permissible Relative Humidity	Maks. %90



MasterSeal® M 861

(Formerly known as Conipur® M 860 Thix)

Description Of Product

MasterSeal® M 861, is a two component, solvent free, thixotropic, polyurethane based waterproofing membrane with crack bridging capability for vertical surfaces.

Complies with EN 1504-2 Complies with EN 13813

Fields Of Application

- Roofs, terraces and terrace gardens
- Aircraft hangars
- Tunnels
- Collecting tanks
- Underground water tanks
- Insulation and coating of car park decks
- Pools
- Channels
- Warehouses

Features And Benefits

- High mechanical resistances.
- Can be applied to vertical surfaces.
- Provides easy solutions in complicated details.
- Used safely without attending to the solutions

for corner, side and joint.

- Quick application and curing.
- Provides monolithic application, no joints or laps.
- Can be adhered to many surfaces with the right primer.
- 100% adherence to the substrate.
- Low risk of blistering owing to water vapour permeability.
- Crack bridging properties.
- Resistant to standing water.
- Solvent free.

Coverage

1,35 kg/m²

Packaging

27.5 kg set
Part A: 2.5 kg drum
Part B: 25 kg drum

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

MasterSeal® M 861 Part A	Polyurethane Resin
MasterSeal® M 861 Part B	Polyurethane Hardener
Density	1,05 kg/litre
Viscosity	Paste
Shore A Hardness	75
Tensile Strength DIN53504	15 N/mm ²
Elongation DIN53504	700%
Tear Strength DIN53515	21 N/mm
Working Time	10°C 35 min. 25°C 25 min. 30°C 15 min.
Re-coating Interval	10°C Min. 8 h Maks. 2 d 20°C Min. 5 h Maks. 1 d
Substrate and Ambient Temperatures	Min. 5°C Maks. 30°C
Permissible Relative Humidity	Maks. 90%

The above figures are valid for 23°C and intended as a guide only and should not be used as a basis for specifications.



MasterSeal® M 866

(Formerly known as Mastertop® Membrane 23)

Description Of Product

MasterSeal® M 866, is a two component, solvent free, polyurethane based waterproofing membrane that can be used on traffic coating and roof waterproofing application with crack bridging capability.

Complies with EN 1504-2

Complies with EN 13813

Complies with ASTM C957

Fields Of Application

- Roofs, terraces and terrace gardens
- Under the ceramic coating surfaces of balcony and terrace
- Insulation and coating of car park decks
- Surface coatings of warehouses

Features And Benefits

- Resistance to abrasion and breakdown
- Elastic
- High mechanical strengths
- Do not including the filling material of the membrane collapse

- Dynamic crack bridging properties
- Quickly and easy application
- Provides monolithic application, no joints or laps

Coverage

The consumption of **MasterSeal® M 866** is between 1.0 - 2.0 kg/m² depending on the substrates roughness, usage purpose.

Packaging

25 kg set
Part A: 20.243 kg drum
Part B: 4.757 kg drum

Shelf Life

The shelf life 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

MasterSeal® M 866 Part A	Polyurethane Resin
MasterSeal® M 866 Part B	Polyurethane Hardener
Mixed Density	1,50 kg/m ³
Shore A Hardness	90
Tensile Strength DIN 53504	4,70 N/mm ²
Elongation Strength DIN 53504	%100
Working Time	45 minutes
Re-coating interval	12 hours
Substrate Temperatures	Min. 10°C Maks. 35°C

The above figures are valid for 23°C and intended as a guide only and should not be used as a basis for specifications



MasterSeal® M 881

(Formerly known as Conipur® 640 WC 881)

Description Of Product

MasterSeal® M 881, is a wear coat for use in car park deck waterproofing systems. It is solvent free, 2-component polyurethane and is slightly thixotropic so that it can be applied to ramps without the on-site addition of a thixotropic as well as to horizontal surfaces. It has a low consumption for economic use and exhibits an excellent bond to the waterproofing membrane. **MasterSeal® M 881** is slightly elastic so that it can accommodate some movement of the deck. It has a tenacious hold onto the broadcast aggregate providing a hard wearing, skid resistant surface.

Fields Of Application

MasterSeal® M 881 is primarily intended for use in car park deck waterproofing systems MasterSeal Traffic 2203, 2205, 2266 and 2272. **MasterSeal® M 881** can also be used in other systems where its excellent mechanical properties can be used to advantage.

Features And Benefits

- Excellent bond to CONIPUR waterproofing membranes
- Tenacious hold to broadcast aggregate
- Slightly thixotropic for application to ramps

- Withstands loads imposed by traffic
- Resistant to fuels, battery acid and hydraulic oils
- Low consumption

Coverage

The consumption of **MasterSeal® M 881** is 0.4 – 0.7 kg/m². In some countries the minimum thickness of the wear coat is defined. In these cases the consumption can be higher than the values quoted above.

The above consumption figures are intended as a guide only and may be higher on very rough or porous substrates.

Packaging

MasterSeal® M 881 is supplied in 24-kg-working packs

Shelf Life

For maximum shelf life under these conditions see "Best before." label

Technical Data

Properties	Standard	Data	Unit
Chemical base	-	Polyurethane	-
Mixing ratio	A : B	100 : 46	-
Density	-	1.08	g/cm ³
Viscosity	-	1400	mPa.s
Working time	-	30	minutes
Re-coating interval	10°C 20°C 30°C	min. 12 min. 9 min. 6	h h h
Substrate and ambient temperatures	-	min. 5 maks. 30	°C °C
Permissible relative humidity	-	maks. 80	%
Shore-D-hardness	after 28 days	65	-
Tensile strength	DIN 53504	16	N/mm ²
Elongation	DIN 53504	50	%

*The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterSeal® P 625

Description Of Product

MasterSeal® P 625, is an epoxy based, two component, low viscosity primer for use on dry, damp and wet concrete and cementitious mineral substrates.

Complies with TS EN 13813 and TS EN 1504-2

Fields Of Application

- With the addition of the appropriate amount of silica sand, it can be used as a repair mortar.
- As a primer under MasterTop® epoxy / polyurethane floor coatings.
- As a primer under MasterSeal® polyurethane waterproofing systems.
- In order to block moisture and prevent risk of swelling on damp and wet concrete substrate.
- As a primer on steel substrates.

Features And Benefits

- Easy to apply.
- Tolerant to damp that raises from the floor.
- Penetrates to capillary holes within concrete structure hence blocks the holes.
- Provides excellent penetration and adherence on cement based substrates.
- **MasterSeal® P 625** does not lose its performance under sudden temperature changes between -20°C

- +50°C. It has also been tested under +250°C and above for short periods of time.

- Prevent swelling risk of coating materials on damp concrete substrate.
- Prevent pinholes on surface of resin based waterproofing materials at damp interior areas.

Coverage

The Coverage of **MasterSeal® P 625** A+B is between 0.3-0.5 kg/m² depending on the condition and the porosity of the substrate. The coverage generally vary on priming solutions.

Packaging

17.59 kg set
Part A: 10 kg drum
Part B: 7.59 kg drum

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

MasterSeal® M 625 Part A	Epoxi Resin
MasterSeal® M 625 Part B	Epoxi Hardener
Color	Clear
Mixed Density	1,06 kg/lt
Shore A Hardness	79
Compressive Strength (7 days)	50 N/mm ²
Flexurel Strength 7 days	50 N/mm ²
Bond Strength (7 days)	5 N/mm ²
Wear Resistance (EN ISO 5470-1)	< %5
Ambiet Temperature	+8°C +30°C
Working Time	17-20 minute
Traffic Ready	8 h
Fully Cured	7 d

The above figures are valid for 23°C and intended as a guide only and should not be used as a basis for specifications.



MasterSeal® P 640

(Formerly known as Mastertop® P 640)

Description Of Product

MasterSeal® P 640, is a single part, solvent containing, polyurethane based primer for absorbent surfaces.

Fields Of Application

- Primer for polyurethane waterproofing membranes like **MasterSeal® P 640**
- Can be applied on concrete, cement mortar, wood, etc.
- For certified systems using **MasterSeal® P 640**

Features And Benefits

- Single part product that allows simple application without the need of mixture.

- Excellent adhesion.
- Excellent penetration and sealing of pores of concrete.
- Fast curing.
- Elasticity to absorb substrate movements.
- Resistant to standing water.
- Frost resistant.

Packaging

25 lt

Shelf Life

Store in cool and dry between +5°C and +25°C temperature warehouse conditions. Shelf life in these conditions is 12 months in unopened original containers

Technical Data

Material	Polyurethane, pre-polymer, Solvent Based
Color	Transparent
Application Temperature (Support and Material)	From +5°C to + 35°C
Permissible Moisture on The Surface	Max. 4%
Re-coating Interval	Approx. 3 hours
Fully Cured	After 7 days
Service Temperature	From -20°C to + 80°C
Adhesion to Concrete	>2,2 N/mm ² (concrete cohesive failure)

Hardening times are measured at 22°C and 65% R.H. Higher temperatures and/or higher R.H. can shorten these times



MasterSeal® P 681

(Formerly known as Mastertop® P 681)

Description Of Product

MasterSeal® P 681, is a solvent free, low viscosity, two component epoxy based primer used to protect steel and iron surfaces against corrosion.

Fields Of Application

Under **MasterTop®** and **MasterSeal®** systems, iron and steel surfaces (not appropriate for stainless steel surfaces).

Features And Benefits

- Protects iron and steel against corrosion.
- Ensures and high adherence on steel and iron surfaces.

Coverage

00.3-0.4 kg/m²/coat, depending on capillarity of the surface. **MasterSeal® P 681** should be applied in double coats.

Packaging

10 kg set
Part A: 7.5 kg drum
Part B: 2.5 kg drum

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

MasterSeal® P 681 Part A	Epoxi Resin
MasterSeal® P 681 Part B	Epoxi Hardener
Color	Oxidate Red - White
Mixed Density	1,23 kg/lit
Substrate Temperature	+8°C +30°C
Working Time	30 minutes
Re Coating Interval	
+10°C	min. 10 h - maks. 1,5 d
+23°C	min. 5 h - maks. 1 d
+30°C	min. 2,5 h - maks. 12 h

The above figures are valid for 23°C and intended as a guide only and should not be used as a basis for specifications.

MasterSeal® P 682

(Formerly known as Mastertop® P 682)

Description Of Product

MasterSeal® P 682, is a low viscosity, single component silane primer. It is easy to apply and has a short re-coating time.

Fields Of Application

- Intended for use on glass and glazed tile substrates.
- Under **MasterTop®** epoxy/polyurethane floor coatings.
- As a primer under **MasterSeal®** polyurethane coating systems.

- Excellent adhesion

Coverage

The consumption of **MasterSeal® P 682** is approx. 0.05 kg/m² The above consumption figures are intended as a guide only and may be higher on very rough or porous substrates.

Packaging

MasterSeal® P 682 is supplied in cans of 1 kg.

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Features And Benefits

- Easy to apply
- Short re-coating interval
- Single component
- Low viscosity

Technical Data

MasterSeal® P 682	Silane Primer
Viscosity (4 mm DIN cup)	15 s
Density	0,98 kg/lit
Recommended Substrate Temperature	min. 3°C max. 30°C
Re-coating Interval	
+10°C	Min. 1 hour - Max. 5 hours
+23°C	Min. 0,5 hour - Max. 4 hours
+30°C	Min. 0,3 hour - Max. 3 hours

The above figures are valid for 23°C and intended as a guide only and should not be used as a basis for specifications.



MasterSeal® P 683

(Formerly known as Mastertop® P 683)

Description Of Product

MasterSeal® P 683, is a non-fading, low solvent, low viscosity, clear one-component polyurethane based moisture-cured primer.

Fields Of Application

MasterSeal® P 683 is used as a primer for mineral substrates such as concrete and cement screeds in conjunction with i.e. **MasterSeal® M 251**, **MasterSeal® TC 258**, etc.

It is also suitable as a binder for scratch primers. (Filling ratio 1:1)

Features And Benefits

- Excellent adhesion
- Short re-coating interval

- Single component.
- Non-yellowing
- Low viscosity
- Easy to apply
- Excellent mechanical properties

Packaging

MasterSeal® P 683 supplied in 10 kg working packs

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

MasterSeal® P 683	Polyurethane
Colour	Clear
Solids Content	60 %
Density	1,00 kg/liter
Viscosity	500 mPa.s
Permissible Ambient and Substrate Temperatures	Min. 8°C Max. 30°C
Permissible Relative Humidity %	40-90%
Re-coating Interval Ready for Traffic	min. 1h max. 2d
Fully Cured	5 d

The above figures are valid for 23°C and intended as a guide only and should not be used as a basis for specifications



MasterSeal® P 684

(Formerly known as Mastertop® P 684)

Description Of Product

MasterSeal® P 684, is a low viscosity, single component, adhesion promoting primer. It is easy to apply and has a short re-coating time.

Fields Of Application

MasterSeal® P 684, is intended for use on nonferrous metals, and in particular aluminum and zinc, under **MasterTop®** and **MasterSeal®** coating materials.

Features And Benefits

- Excellent adhesion
- Short re-coating interval
- Easy to apply
- Single component

- Low viscosity

Coverage

The consumption of **MasterSeal® P 684** is 0.04-0.06 kg/m² depending on the condition and porosity of the substrate.

Packaging

MasterSeal® P 684 supplied in 4.8 kg working packs

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

MasterSeal® P 684	Polyurethane
Color	Green
Solids Content	%25
Density	0,90 kg/lt
Viscosity	20 s
Recommended Application Temperature Range	8°C - 30°
Re-coating Interval / Ready for Traffic	min. 2 h - maks. 4 h
+10°C	min. 30 m. - maks. 2 h
+23°C	min. 15 m. - maks. 1 h
+30°C	



MasterSeal® P 691

(Formerly known as Mastertop® P 691)

Description Of Product

MasterSeal® P 691, is a fast curing, single component, moisture curing, clear polyurethane adhesion promoting primer. **MasterSeal® P 691** contains solvent.

Fields Of Application

MasterSeal® P 691 is designed for use as an adhesion promoting primer on **MasterSeal®** membranes. Its uses include the application of a new membrane to an aged membrane e.g. in repair applications. It can also be used on aged membranes when renewing or repairing the UV protective top coat. **MasterSeal® P 691** can also be used as a primer on sand broadcast epoxy primers prior to the application of a spray applied membrane in applications where the membrane is permanently exposed to water.

Features And Benefits

- Excellent adhesion to aged membranes especially in applications where the membrane is permanently

exposed to water

- Rapid cure
- Long re-coating interval
- Low viscosity
- Low consumption
- Easy to apply

Coverage

The consumption of **MasterSeal® P 691** is 0.05 - 0.10 kg/m² depending on the condition and porosity of the substrate.

Packaging

MasterSeal® P 691 supplied in 24 kg working packs

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

MasterSeal® P 691	Polyurethane
Color	Clear
Solids Content	%60
Density	1,03 kg/l
Viscosity	110 mPas
Recommended Application Temperature Range	80 - 30°C
Re-coating Interval / Ready for	min. 1 h maks. 24 h

The above figures are valid for 23°C and intended as a guide only and should not be used as a basis for specifications.



MasterSeal® P 698

(Formerly known as Mastertop® P 698)

Description Of Product

MasterSeal® P 698, is a single component, moisture curing polyurethane primer. It contains solvents.

Fields Of Application

MasterSeal® P 698, is intended for use as a primer on bituminous substrates e.g. roofing felt under **MasterSeal®** spray applied and hand applied waterproofing membranes in roofing applications. The solvents used in **MasterSeal® P 698** have been selected to have a minimum effect on the bitumen.

Features And Benefits

- Excellent adhesion to bituminous substrates
- Solvents do not attack bitumen
- Quick to cure
- Low viscosity
- Easy to apply

Coverage

The consumption of **MasterSeal® P 698** is 0.05-0.15 kg/m² depending on the condition and porosity of the substrate.

Packaging

MasterSeal® P 698 supplied in 24 kg working packs

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

MasterSeal® P 698	Polyurethane
Color	Clear
Solids Content	%43
Density	1,00 kg/lt
Viscosity	12 h
Recommended Application Temperature Range	8 - 30 °C
Re-coating Interval / Ready for	min. 1 hours - maks. 5 hours

The above figures are valid for 23°C and intended as a guide only and should not be used as a basis for specifications.

MasterSeal® P 770

Description Of Product

MasterSeal® P 770, is a two component primer based on Xolotec - Technology, providing high substrate penetration and acting as bond promoter for the subsequent **MasterSeal®** systems, e.g. **MasterSeal® 7000 CR**.

Fields Of Application

MasterSeal® P 770, is used as primer on mineral substrates for **MasterSeal®** systems. The primer coat will improve the adhesion and prevent the appearance of pinholes or bubbles in the subsequent hardened coating.

Features And Benefits

- Low viscosity
- Easy to apply
- Excellent penetration
- Seals pores and capillaries
- Moisture tolerant: can be applied on substrates with high residual humidity.

- Excellent bond to substrate,
- Does not contain solvents.

Coverage

The consumption of **MasterSeal® P 770** is approximately 0.25 – 0.4 kg/m². This consumption is theoretical and can vary according to the absorption and roughness of the substrate. It is essential to carry out representative trials on site to evaluate the exact consumption.

Packaging

MasterSeal® P 770, is available in 5 kg Kits consisting of 2.2 kg Part A and 2.8 kg Part B. Bileşen A: 2.2 kg ve Bileşen B: 2.8 kg

Shelf Life

Shelf life under these conditions is 12 months for both parts.



MasterSeal® P 770

Technical Data

Property	Standard	Unit	Data
Density of mixed material Part A Part B mixed	EN ISO 2811-1	g/cm ³	approx. 1.3 approx. 1.2 approx. 1.2
Viscosity of mixed material Part A Part B mixed	EN ISO 3219	mPas	approx. 1140 approx. 125 approx. 650
Application temperature (substrate and material)		°C	from +5 to +35
Maximum substrate moisture (during application)			not restricted, but surface must be visibly dry
Maximum relative humidity (during application)		%	≤ 75 (at +10 °C) ≤ 85 (at +20 °C)
Pot-life at +5 °C at +10 °C at +20 °C at +30 °C		minutes	approx. 30 approx. 25 approx. 20 approx. 10
Dry to touch at +20°C		hours	approx. 5
Ready for pedestrian traffic / Re-coating interval at +10 °C at +20 °C at +30 °C		hours	min. 11 min. 5 min. 2
Fully cured at +10 °C at +20 °C at +30 °C		days	7 5 2
Glass transition temperature after 28 days	EN 12614	°C	55
Adhesion to concrete after 28 d	EN 1542	N/mm ²	> 2.0
Adhesion in combination with subsequent layers of - MasterSeal M 790 (Xolutec) - MasterSeal M 310 (epoxy) - MasterSeal M 336 (epoxy-polyurethane) - MasterSeal M 391 (epoxy) - MasterSeal M 689 (polyurea, hot-spray) - MasterSeal M 808 (polyurethane) - MasterSeal M 811 (polyurea-hybride, hot-spray)	EN 1542	N/mm ²	> 2.5 > 3.0 > 2.5 > 3.0 > 2.5 > 2.5 > 3.0

Note: Data are measured at 21°C ± 2°C and 60% ± 10% relative humidity if not stated differently. Higher temperatures and/or higher relative humidity can shorten hardening/curing times, and vice versa. Technical data shown are statistical results and do not correspond to guaranteed minima. Tolerances are those described in appropriate performance.



MasterSeal® TC 242

(Formerly known as Mastertop® P 691)

Description Of Product

MasterSeal® TC 242, aromatic polyurethane based, two component, solvent free, tintable, elastomeric, protective coating material.

Fields Of Application

- It can be used as a top coat coating in car parking (indoor area-without UV resistance) applications of car park **MasterSeal® Traffic** systems.
- It can be used as a middle layer in open environment applications (outdoor area) of car parking **MasterSeal® Traffic** systems.

Features And Benefits

- Provides excellent abrasion and impact resistance.
- Elastomeric.
- Shows high chemical and oil resistance.

- Available in mildew green, red, grey and shades.

Coverage

0,35 kg/m²

Please choose the appropriate application method for supplements and actual consumption rates

Packaging

25 kg set

Part A: 20 kg

Part B: 5 kg

Shelf Life

The shelf life is 6 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

MasterSeal® TC 242	Aromatic Polyurethane
Density	1,5 g/cm ³
Solid Content	Solvent free
Pot Life	45 min.
Opening Time to Pedestrian Traffic	1 day
Opening Time to Car Traffic	3 day
Tensile Strength	>10 N/mm ²
Elongation (ASTM D638)	>50 %
Tear Strength	>40 N/mm ²
Taber Abrasion Resistance (ASTM C 957)	>50 mg

The above figures are valid for +25 C and 50% relative humidity. High temperatures shorten times, prolongs low temperatures



MasterSeal® TC 257

(Formerly known as Mastertop® P 691)

Description Of Product

MasterSeal® TC 257, is a two component, low solvent containing, UV resistance, high chemical and abrasion resistance, polyurethane based protective coating.

Fields Of Application

- Car parks both indoors and out,
- Pedestrian walk ways,
- Light engineering workshops,
- Vehicle ramps

Features And Benefits

- Excellent impact and abrasion resistance
- Hardness is high
- Provides excellent adherence even when in contact with continuous water.
- UV & weather resistant.
- Good chemical and oil resistance.

- High quality aliphatic polyurethane prepolymer structure.
- Available in Grey, green, red, blue and shades (colors available on request).

Coverage

Consumption varies according to system solutions.

Packaging

22,5 kg kit
Component A: 16,545 kg
Component B: 5,955 kg

Shelf Life

The shelf life is 6 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

MasterSeal® TC 257	Polyurethane
Density	1,25 g/cm ³
Pot Life	60 minutes
Curing time	~2 hours
Fully Cured	48 hours
Application Temperature	+10°C - +35°C
Tensile Strength (ASTM D 412)	>12 N/mm ²
Elongation (ASTM D 412)	>%30
Tear Strength (ASTM D 1004)	40 Kn/m
Wear Resistance	50 mg
Adhesion Strength (ASTM D 4541)	>2mPa

The above figures are valid for +25 C and 50% relative humidity. High temperatures shorten times, prolongs low temperatures.



MasterSeal® TC 258

(Formerly known as Conipur® TC 458)

Description Of Product

MasterSeal® TC 258, is a single component, solvent containing, moisture cured, UV resistant, polyurethane based top coating.

Fields Of Application

- As top coat UV coating for **MasterSeal® Traffic** car park deck insulation systems,
- As non-slippery top coat for **MasterSeal®Roof** insulation coating.

Features And Benefits

- Single component, easy to apply.
- Can be applied thicker without causing foam.
- Elastic.
- Matt finish.
- Resistant to UV and weather conditions.

- Excellent adhesion to non-porous substances.
- Low viscosity.
- Fire retardant capability.

Coverage

The Coverage changes depending on the system solution.

Packaging

24 kg drum

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

Material Structure	Polyurethane
Color	Various Ral Colours
Solid Content	%60
Mixed Density	1.3kg/liters
Viscosity	1000 mPas
Tensile Strength DIN 53504	4.5 N/mm ²
Breaking Elongation DIN 53504	200 %
Substrate Temperature	+10°C +35°C
Pot(Working) Life	1 Hours
Fully Cured	5 days
Recoating Interval	
+10°C	Min. 8 h - Max. d
+20°C	Min. 5 h - Max. 2 d
+30°C	Min. 4 h - Max. 2 d

The above figures are valid for 23°C and intended as a guide only and should not be used as a basis for specifications



MasterSeal® TC 259

(Formerly known as Conipur® TC 459)

Description Of Product

MasterSeal® TC 259, is a single component, solvent containing, moisture cured, UV resistant, polyurethane based top coating.

Fields Of Application

It is used as top coat polyurethane UV coating for **MasterSeal® Roof** insulation systems.

Features And Benefits

- Single component, easy to apply.
- Elastic.
- Excellent adhesion even when exposed to water.

- Resistant to UV and air conditions.
- Has a higher aliphatic polyurethane pre-polymer structure.

Coverage

0,15-0,20 kg/m²

Packaging

12,5 kg drum

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

Material Structure	Polyurethane
Color	Various Ral Colours
Solid Content	%58
Mixed Density	1.2 kg/liters
Viscosity	75 s
Substrate Temperature	+5°C +30°C
Pot Life	1 Hours
Recoating Interval	min. 12 h - max. 3 d
Fully Cured	5 days

The above figures are valid for 23°C and intended as a guide only and should not be used as a basis for specifications



MasterSeal® TC 373

(Formerly known as Mastertop® TC 473)

Description Of Product

MasterSeal® TC 373, is a solvent free (total solid), low viscosity, lightly elasticized, 2K epoxy top coat. It cures to a tough, hard wearing and glossy finish.

Fields Of Application

MasterSeal® TC 373, is primarily used as the top coat in certain car park water-proofing systems. It also finds use in certain floor coating systems.

- MasterSeal® Traffic 2255
- MasterSeal® Traffic 2262
- MasterSeal® Traffic 2263
- MasterSeal® Traffic 2266
- MasterSeal® Traffic 2264
- MasterSeal® Traffic 2271
- MasterTop® 1272
- MasterTop® 1324-R

Features And Benefits

- High wear resistance
- Lightly elasticized
- Attractive finish
- Easy to clean and maintain
- Low viscosity
- Easy to apply

Coverage

ca. 0.5 - 0.8 kg/m²

Intended Use	Materials	Coverage (kg/m ²)
Primer	MasterTop® P 677	0,35 - 0,50
Scatter Sand	Silica Sand No 2	1,00 - 1,50
ALT. PRIMER	MasterTop® P 677	0,35 - 0,50
Filler Sand	Silica Sand No 3	0,35 - 0,50
Scatter Sand	Silica Sand No 2	1,00 - 1,50
Pore Sealer	MasterSeal® TC 373	0,30 - 0,40
Body Coat	MasterSeal® TC 373	0,30 - 0,40

Packaging

MasterSeal® TC 373 is supplied in 30 kg working packs.

Part A: 24.4 kg

Part B: 5.6 kg

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Technical Data

MasterSeal® TC 373 Part A MasterSeal® TC 373 Part B	Epoxy Resin Epoxy Hardener
Density	1,43 gr/cm ³
Permissible Ambient and Substrate Temperatures	Min. +8°C Maks. +40°C
Relative Humidity	Maks. %85
Pot Life	35 Min.
Recoating Interval	Min. 8 h Maks. 3 d
Fully Cured	5 d
Viscosity	1500 mPa.s
Shore D Hardness (14 d)	72
Taber Abrasion Resistance (7 d)	55 mg

The above figures are valid for 23°C and intended as a guide only and should not be used as a basis for specifications.



MasterSeal® TC 640

(Formerly known as Masterseal® 640 TOPCOAT)

Description Of Product

MasterSeal® TC 640, is a single part, polyurethane based finishing topcoat for UV protection of polyurethane membranes.

Fields Of Application

MasterSeal® TC 640 is recommended for:

- UV protection for exposed applications.
- For certified systems using **MasterSeal® TC 640**.
- Top Coat for **MasterSeal® Roof** systems.

Contact the Technical Service of your local Master Builders Solutions office regarding any application required not mentioned here

Features And Benefits

- Single part product that allows simple application without the need of mixture.
- Easy application by brush and roller.
- Excellent adhesion.
- UV resistant. Colour stability.

- Fast Curing.
- Frost resistant.
- Withstands pedestrian traffic.

Packaging

20 lt tin

Consumption

Coverage is approximately total 0,15- 0,30 kg/ m² in one or two coats depending on traffic conditions. These consumptions are theoretical and can vary according to the application conditions. It is essential to carry out representative trials on site to evaluate the exact consumption.

Shelf Life

12 months from date of production

Technical Data

Property	Unit
Color	White - Grey
Density	1,20 ± 0,05
Viscosity (ISO 2811)	500 ± 100
Shore D Hardness	40
Elongation at Break	>300
Tensile Strength (N/mm ²)	30
Capillary Absorption and Permeability to Water	<0,1 kg/m ² h ^{0.5}
QUV Accelerated Weathering Test (4h UV at 60°C) (ASTM G53)	Pass (2000 hours)
Application Temperature	+5 to +35
Service Temperature	-40 to +90
Tack free time	6-8 hours
Re-coating interval	24 hours

The above figures are valid for 23°C and intended as a guide only and should not be used as a basis for specifications.



MasterSeal® Roof 2110

(Formerly known as Coniroof® 2111)

		Consumption (approx):
 Primer	According to substrate. See technical data sheet MasterSeal M 800 or consult technical service	
 Liquid membrane	MasterSeal® M 800 Highly reactive, 2-component spray applied polyurethane waterproofing membrane	min. 2,3 kg/m ²
 Topcoat* 2 layers	MasterSeal® TC 259 Pigmented, single component, solvent-based, elastic, UV-and weather resistant PUR topcoat	2 x 0,1-0,15 kg/m ²
 Alternative Topcoat* 2 layers	MasterSeal® TC 258 Pigmented, single component, solvent-based, elastic, UV-and weather resistant PUR topcoat for use where a slip resistant finish is required by broadcasting with a mineral aggregate	2 x 0,25-0,5 kg/m ² Depending of size of aggregate

Hinweis: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.



MasterSeal® Roof 2111

(Formerly known as Coniroof® 2111)

		Consumption
 Primer	According to substrate. See technical data sheet MasterSeal® M 811 or consult technical service	
 Liquid membrane	MasterSeal® M 800 / M 811 Highly reactive, 2-part spray applied polyurethane/ polyurea hybrid waterproofing membrane, mixing ratio 1:1 by volume, solvent free	min. 2,3 kg/m ²
 Topcoat* 2 layers	MasterSeal® TC 259 Pigmented, single part, solvent-based, elastic, UV-and weather resistant PUR topcoat	2 x 0,1-0,15 kg/m ²
 alternative Topcoat* 2 layers	MasterSeal® TC 258 Pigmented, single part, solvent-based, elastic, UV-and weather resistant PUR topcoat for use where a slip resistant finish is required by broadcasting with a mineral aggregate	2 x 0,25-0,5 kg/m ² Depending of size of aggregate
 alternative Topcoat* 2 layers	MasterTop® TC 465 N Pigmented, two part, UV and weather resistant PUR topcoat, elastic	2 x 0,1-0,15 kg/m ²

Hinweis: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.



MasterSeal® Traffic 2203

(Formerly known as Conideck® 2205)

		Consumption
 Primer	MasterTop® P 660 transparent, PU, 2-part, fast and low temperature curing, solvent free	0,3-0,5 kg/m ²
Sand broadcast	oven dried silica sand, size Ø 0.3-0.8 mm uniformly applied, not in excess	0,8-1,0 kg/m ²
Optional/ Scratch primer up to 1 mm roughness	MasterTop® P 660 1 : 0.5 filled with oven dried silica sand, size Ø 0.1-0.3 mm	0,6-1,0 kg/m ^{2*}
Sand broadcast	oven dried silica sand, size Ø 0.3-0.8 mm	2,0-3,0 kg/m ²
 Waterproofing membrane	MasterSeal® M 810/M 811 grey, PU, 2-part, spray applied, fast curing	1,9-2,4 kg/m ²
 Wear coat**	MasterSeal® M 880 white, PU, 2-part, fast curing	0,5-0,7 kg/m ² (up to 1.6 kg/m ²)
Sand broadcast**	oven dried silica sand, size Ø 0.3-0.8 mm or 0.7-1.2 mm, in excess	1,2-4,5 kg/m ²
 Top coat	MasterSeal® TC 681 pigmented, polyaspartic, 2-part, fast curing, UV- and weather resistant, contains solvent	0,6-0,9 kg/m ²
Thickness of the system	approx. 3.5 - up to 5.5 mm**	



MasterSeal® Traffic 2205

(Formerly known as Conideck® 2205)

		Consumption
 Primer	MasterTop® P 617 / P 677 transparent, EP, 2-part, solvent free (total solid)	0,3-0,5 kg/m ²
Sand broadcast	oven dried silica sand, size 0.3-0.8 mm	0,8-1,0 kg/m ²
Optional/ Scratch coat up to 5 mm roughness	Uniformly applied, not in excess MasterTop® P 677 1 : 0.5 - 1 : 2 filled with oven dried silica sand size 0.1-0.3 mm	0,6-1,0 kg/m ² ** Per mm
Sand broadcast	oven dried silica sand, size 0.3-0.8 mm, uniformly applied, not in excess	2,0-3,0 kg/m ²
 Adhesion promoter	MasterSeal® P 691 1K-PU primer, contains solvent, moisture curing	0,05-0,10 kg/m ²
 Waterproofing membrane	MasterSeal® M 800/M 811 grey, PU/hybrid PUA, 2-part, spray applied, fast curing	1,9-2,4 kg/m ²
 Wear coat**	MasterSeal® M 881 grey, PU, 2-part, spray applied, fast curing	0,5-0,7 kg/m ² (up to 1.6 kg/m ²)
Sand broadcast**	oven dried silica sand, size 0.3-0.8 mm or 0.7-1.2 mm, in excess	1,2-1,8 kg/m ² (up to 4.5 kg/m ²)
 Top coat	MasterSeal® TC 258 pigmented, PU, 1-part, UV- and weather resistant, contains solvent, matt finish	0,5-0,8 kg/m ²
 Optional Top coat	MasterSeal® TC 373 pigmented, polyaspartic, 2-part, fast curing, glossy finish	0,5-0,8 kg/m ²
Thickness of the system	approx. 3.5-4.0 mm (up to 5.5 mm**)	



MasterSeal® Traffic 2259

(Formerly known as Conideck® 2259)

Description Of Product

MasterSeal® Traffic 2259, is a polyurethane based car park coating system which has high abrasion resistance and which is designed for being used in open pavements and slopes under load with a property of covering cracks. Furthermore it is also suitable for intermediate stories under which there are living quarters.

		Consumption
Primer	MasterTop® P 604	0.30 - 0.50
Scatter Sand	Silica Sand 0.1 - 0.3 or 0.3 - 0.8 mm	0.80 - 1.00
Alternative Primer (For surface flaws up to 1 mm)	MasterTop® P 604 (It is applied by mixing silica in the ratio of 1/0.5 – 1/0.5 – 1/0.8 by weight)	0.30 - 0.50
Filler Sand	Silica Sand 0.1 - 0.3 mm	0.15 - 2.00
Scatter Sand	Silica Sand 0.1 - 0.3 or 0.3 - 0.8 mm	0.80 - 1.00
Top Coat	MasterTop® TC 258	0.40 - 0.60

Alternative primers may be used according to infrastructure properties.



MasterSeal® Traffic 2260

(Formerly known as Conideck® 2260)

Description Of Product

MasterSeal® Traffic 2260, is an epoxy based car park coating system which has the capacity to cover the cracks and which is designed to be used in the flooring of intermediate stories and slopes under load.

Technical Data

Intended Use	Materials	Consumption (kg/m ²)
Primer	MasterTop® P 604	0,30 - 0,50
Scatter Sand	Silica Sand 0,1 - 0,3 veya 0,3 - 0,8mm	0,80 - 1,00
Alternative Primer (For surface flaws up to 1 mm)	MasterTop® P 604 <i>(It is applied by mixing silica in the ratio of 1/0.5 - 1/0.5 - 1/0.8 by weight)</i>	0,30 - 0,50
Filler Sand	Silica Sand 0,1 - 0,3 mm	0,15 - 2,00
Scatter Sand	Silica Sand 0,1 - 0,3 mm or 0,3 - 0,8 mm	0,80 - 1,00
Top Coat	MasterSeal® TC 373	0,40 - 0,60

Alternative primers may be used according to infrastructure properties.

MasterSeal® Traffic 2262

(Formerly known as Conideck® 2262)

Description Of Product

MasterSeal® Traffic 2262, is a polyurethane based car park coating system which has a high abrasion resistance and which is designed to be used on pavements and slopes that are under heavy loads.

Technical Data

Intended Use	Materials	Consumption (kg/m ²)
Primer	MasterTop® P 677 (MasterTop® P 677 Z)	0,30 - 0,50
Scatter Sand	Sillica Sand 0,1 - 0,3 or 0,3 - 0,8 mm	0,80 - 1,00
Alternative Primer (For surface flaws up to 1 mm)	MasterTop® P 677 (MasterTop® P 677 Z) <i>(It is applied by mixing silica in the ratio of 1/0.5 - 1/2 by weight)</i>	0,30 - 0,50
Filler Sand	Slica Sand 0.1 - 0.3 mm or MasterTop®1200 filler F1A	0,15 - 2,00
Scatter Sand	Sillica Sand 0,1 - 0,3 or 0,3 - 0,8 mm	1,00 - 3,00
1st Body Coat	MasterTop® BC 375 N	0,80 - 1,00
Filler Sand	Sillica Sand 0,1 - 0,3 mm	0,25 - 0,35
Scatter Sand	Sillica Sand 0,1 - 0,3 mm or 0,3 - 0,8 mm	1,00 - 2,00
2nd Body Coat	MasterTop® BC 375 N	0,80 - 1,00
Filler Sand	Sillica Sand 0,1 - 0,3 mm	0,25 - 0,35
Scatter Sand	Sillica Sand 0,1 - 0,3 mm or 0,3 - 0,8 mm	1,00 - 2,00
Top Coat	MasterSeal® TC 373	0,50 - 0,80

Alternative primers may be used according to infrastructure properties.



MasterSeal® Traffic 2273

(Formerly known as Conideck® 2262)

		Consumption
 Optional/Primer on porous, highly absorbent and earth contacting concrete	MasterTop® P 604 (transparent, EP, 2-component,	0,3-0,5 kg/m ²
Sand broadcast if necessary ^{oo}	oven dried silica sand, size 0.3-0.8 mm uniformly, not in excess	0,8-1,0 kg/m ²
 Scratch primer	MasterTop® P 604 (1 : 1 filled with oven dried silica sand, size 0.1-0.4 mm	0,8-1,6 kg/m ² *
Sand broadcast	oven dried silica sand, size 0.3-0.8 mm or 0.7-1.2 mm	5,0-6,0 kg/m ²
 Top coat	MasterTop® BC 372 pigmented, EP, 2-component, glossy finish	0,6-0,9 kg/m ²
Total thickness of the system	approx. ~1,5-2,5 mm **	

Note: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.

**Consumption incl. filler*

***The system consumption and system layer thicknesses vary according to country-specific guidelines and standards.*

oo Sand broadcasting just necessary if re-coating intervals must be exceeded (e.g. by raining)



Synthetic Waterproofing Membranes

SYNTHETIC WATERPROOFING PRODUCT SUGGESTION TABLE

		MasterSeal® 700 BG	MasterSeal® 701 FT	MasterSeal® 703 RE	MasterSeal® 702 FM	MasterSeal® 704 AR	MasterSeal® 705 DW	MasterSeal® 706 PZ	MasterSeal® 707 HE	MasterSeal® 750 TPE	MasterSeal® 751 TPEF	MasterSeal® 752 TDE	MasterSeal® 753 THE	MasterSeal® 754
Non-accessible Ballasted Roof		•		•	•	•				•	•			
Trafficked Roof			•											
Pedestrian Roof				•		•								
Green Roof, Roof Garden				•	•	•				•	•			
Mechanically Fixed UV Exposed Roof					•					•				
Exposed Roofing Fully Bonded and Mechanically Fixing											•			
Exposed Roofing Fully Bonded						•					•			
Parapets				•		•				•	•	•		
Canals Water Structures Artificial Pounds								•					•	
Chemical Storage Tanks Exposed Chemical Attacks													•	
Reservoirs Containing Potable Water and Liquid Foods							•							
Below Ground Waterproofing		•												•
Tunnel Waterproofing		•												
Compartmentalisation Application With Injection Systems		•						•						
	"Protection layer for underground structures"							•						



MasterSeal® 700 BG

(Formerly known as Masterpren® BG)

Description Of Product

MasterSeal® 700 BG, is a synthetic membrane made of plasticised PVC manufactured by twin coloured co-extrusion method.

Fields Of Application

- Below ground building structures
- Tunnels
- Water exclusion and protection of structures

Features And Benefits

- Superior mechanical characteristics.
- Signal layer shows damage and aids visual inspection on-site.
- High mechanical resistance and elasticity.
- Long life expectancy.
- Resistance to wash-out action.
- Resistance to root penetration.
- Resistance to bursting at high water pressure.
- Double weld allows pressure testing of joints.
- May be welded to **MasterSeal® 950** water stop to compartmentalise the structure.

- Loose laid to act independently of structural movement.

Coverage

In order to calculate total consumption of synthetic waterproofing membranes, it must be added quantity of 5% overlapping and 2-5% of loss depending upon the project conditions on the total application area.

Packaging

Thickness (mm)	1,5	2,0	2,2	3,0
Width (m)	2,10	2,10	2,10	2,10
Length (m)	20	20	20	20
Colour	Green, Black			

Shelf Life

No shelf life limitation under appropriate storing conditions.

Technical Data

Thickness UNI EN 1849-2	1,5 mm (±5%)	2,0 mm (±5%)	2,2 mm (±5%)	3,0 mm (±5%)
Specific Weight UNI EN 1849-2	1,950 kg/m ² (±5%)	2,600 kg/m ² (±5%)	2,860 kg/m ² (±5%)	3,900 kg/m ² (±5%)
Ultimate Tensile Strength UNI EN ISO 527-3 Transverse Machine Direction	≥14 N/mm ² ≥15 N/mm ²	≥14 N/mm ² ≥15 N/mm ²	≥14 N/mm ² ≥15 N/mm ²	≥14 N/mm ² ≥15 N/mm ²
Elongation UNI EN ISO 527-3 Transverse Machine Direction	280% 280%	280% 280%	280% 280%	280% 280%
Dynamic puncture resistance DIN 16726-5.12	≥1000 mm	≥1100 mm	≥1200 mm	≥1800 mm
Cold bending UNI EN 495-5	≤-25°C	≤-25°C	≤-25°C	≤-25°C
Hydrostatic pressure resistance (6 h, 5 bar) UNI EN 1928 metot B	Waterproof	Waterproof	Waterproof	Waterproof
Tear resistance ISO 34 Specimen Fig. 2	≥45 N/mm	≥45 N/mm	≥45 N/mm	≥45 N/mm
Resistance to static punching (CBR) UNI EN ISO 12236	≥1700 N	≥2200 N	≥2300 N	≥3400 N
Resistance to oxidation UNI EN 14575 Tensile strength variation	<25%	<25%	<25%	<25%
Root resistance DIN 4062	No penetration	No penetration	No penetration	No penetration



MasterSeal® 701 FT

(Formerly known as Masterpren® HR)

Description Of Product

MasterSeal® 701 FT, is a synthetic single layer membrane of plasticised PVC manufactured by co-extrusion, using plasticised polymers which are resistant to hydrocarbons.

Fields Of Application

- Environmental protection of drains and water reservoirs contaminated with hydrocarbons
- Environmental containment

Features And Benefits

- Superior mechanical characteristics.
- High mechanical properties and resistance to puncturing.
- Rot-proof.
- High resistance to chemicals and hydrocarbons.
- Resistant to root penetration.
- Long life expectancy.

Coverage

In order to calculate total consumption of synthetic waterproofing membranes, it must be added quantity of 5% overlapping and 2-5% of loss depending upon the project conditions on the total application area.

Packaging

Thickness (mm)	1,5	1,8	20
Width (m)	2,10	2,10	2,10
Length (m)	20	20	20
Colour	Black		

Shelf Life

No shelf life limitation under appropriate storing conditions.

Technical Data

Thickness UNI EN 1849-2	1,5 mm	1,8 mm	2,0 mm
Specific Weight UNI EN 1849-2	1,80 kg/m ²	2,15 kg/m ²	2,40 kg/m ²
Tensile Strength UNI EN 12311-2	≥17,5 N/mm ²	≥17,5 N/mm ²	≥17,5 N/mm ²
Elongation UNI EN 12311-2	≥300%	≥300%	≥300%
Puncture Resistance DIN 16726-5.12	≥800 mm	≥900 mm	≥1100 mm
Tear Resistance UNI EN 12310-2	≥120 N	≥120 N	≥120 N
Cold Blending UNI EN 495-5	≤-25°C	≤-25°C	≤-25°C
Hydrostatic Pressure Resistance (6 h, 5 bar) UNI EN 1928 metot	WaterProof	WaterProof	WaterProof
Dimensional Stability After 6 hours at 80°C UNI EN 1107-2	≤±2,0%	≤±2,0%	≤±2,0%
Root Resistance DIN 4062	No Penetration	No Penetration	No Penetration
Peel Resistance of Joints UNI EN 12316-2	≥150 N/50 mm	≥150 N/50 mm	≥150 N/50 mm
Shear Resistance of Joints UNI EN 12317-2	Breaking out of Joint	Breaking out of Joint	Breaking out of Joint
Resistance to Static Punching UNI EN 12316	≥20 kg	≥20 kg	≥20 kg



MasterSeal® 703 RE

(Formerly known as Masterpren® RE)

Description Of Product

MasterSeal® 703 RE, is a synthetic membrane made by the co-extrusion process. Made of plastisol layers, with different chemical & physical properties and has a layer of glass fibre inserted, for dimensional stability.

- Good resistance to hydrocarbons and bacterial attack.
- Long life expectancy.

Fields Of Application

- Upstands and exposed areas in conjunction with membranes needing protection
- Covered and inverted roof structures
- Landscaped areas and roof gardens
- Underground Structures

Features And Benefits

- It has superior mechanical characteristics and is resistant to weathering and ultra violet rays.
- High mechanical properties and resistance to puncturing.
- Rot-proof.
- Vapour permeable.
- Resistance to root penetration.
- If double welded it allows pressure testing of joints.

Coverage

In order to calculate total consumption of Synthetic waterproofing membranes, it must be added quantity of 5% overlapping and 2-5% of loss depending upon the project conditions on the total application area.

Packaging

Thickness (mm)	1,2	1,5	1,8	2,0	2,4
Width (m)	1,6	1,6	1,6	1,6	1,6
Width (m)	2,10	2,10	2,10	2,10	2,10
Length (m)	20	20	20	20	20
Colour	Light Grey				

Shelf Life

No shelf life limitation under appropriate storing conditions.

Technical Data

Thickness UNI EN 1849-2	1,2 mm	1,5 mm	1,8 mm	2,0 mm	2,4 mm
Specific Weight UNI EN 1849-2	1,50 kg/m ²	1,80 kg/m ²	2,15 kg/m ²	2,40 kg/m ²	2,90 kg/m ²
Tensile Strength UNI EN 12311-2	≥9,0 N/mm ²	≥9,0 N/mm ²	≥9,0 N/mm ²	≥9,0 N/mm ²	≥9,0 N/mm ²
Elongation to Break UNI EN 12311-2	≥200%	≥200%	≥200%	≥200%	≥200%
Puncture Resistance DIN 16726-5,12	≥450 N	≥800 N	≥900 N	≥ 1000 N	≥1500 N
Cold Bending UNI EN 495-5	≤-25°C	≤-25°C	≤-25°C	≤-25°C	≤-25°C
Hydrostatic Pressure Resistance (6 hours at 5 bar) UNI EN 1928 meth. B	Waterproof	Waterproof	Waterproof	Waterproof	Waterproof
Resistance to Artificial Weathering UNI EN 1927	No cracking	No cracking	No cracking	No cracking	No cracking
Root Resistance DIN 4062	No penetration	No penetration	No penetration	No penetration	No penetration
Resistance to Hail on Rigid Substrate UNI EN 13583	≥25 m/s	≥25 m/s	≥25 m/s	≥25 m/s	≥25 m/s
Dimensional Stability After (6 hours at 5 bar) UNI EN 1928 meth. B	≤0,1%	≤0,1%	≤0,1%	≤0,1%	≤0,1%
Tear Resistance UNI EN 12310-2	≥110 N	≥135 N	≥160 N	≥170 N	≥200 N
Thermal Ageing Air After 168 d at 70°C Cold Bending UNI EN 1296	≤-25°C	≤-25°C	≤-25°C	≤-25°C	≤-25°C
Peel Resistance of Joints UNI EN 12316-2	150 N/50 mm	150 N/50 mm	150 N/50 mm	150 N/50 mm	150 N/50 mm
Shear Resistance of Joints UNI EN 12317-2	Breaking out of joint	Breaking out of joint	Breaking out of joint	Breaking out of joint	Breaking out of joint
Resistance to Impact UNI EN 12691	20 mm	20 mm	10 mm	10 mm	10 mm
Resistance to Static Punching UNI EN 12316	≥20 kg	≥20 kg	≥20 kg	≥20 kg	≥20 kg



MasterSeal® 704 AR

(Formerly known as Masterpren® RB)

Description Of Product

MasterSeal® 704 AR, is a synthetic membrane made by the casting process. Made of plastisol layers with different chemical and physical properties and has a layer of 50 g/m² glass fiber inserted for dimensional stability. It also has a 200 g/m² non-woven polyester felt, to aid bonding to the substrate with an adhesive. A bitumen resistant grade, with a 300 g/m² nonwoven polyester felt, is also available.

Fields Of Application

- Exposed and architectural roof structures
- Landscaped areas and roof gardens
- Refurbishment of roofs with existing bitumen waterproofing, using a variant of this membrane

Features And Benefits

- It has superior mechanical characteristics and high resistance to weathering and ultra violet rays.
- High mechanical properties and resistance to puncturing.
- Dimensionally stable.
- Resistant to hot-cold temperature cycles.

- Custom colours possible to aid architectural design.
- Bitumen resistant variant available.
- Long life expectancy.

Coverage

In order to calculate total consumption of synthetic waterproofing membranes, it must be added quantity of 5% overlapping and 2-5% of loss depending upon the project conditions on the total application area.

Packaging

Thickness (mm)	1,2	1,5	1,8	2,0	2,4
Width (m)	1,6	1,6	1,6	1,6	1,6
Length (m)	20	20	20	20	20
Colour	Light Grey				

Shelf Life

No shelf life limitation under appropriate storing conditions.

Technical Data

Thickness UNI EN 1849-2	1,2 mm	1,5 mm	1,8 mm	2,0 mm	2,4 mm
Specific Weight UNI EN 1849-2	1,70 kg/m ²	2,00 kg/m ²	2,35 kg/m ²	2,60 kg/m ²	3,10 kg/m ²
Tensile Strength UNI EN 12311-2	≥650 N/5 cm	≥700 N/5 cm	≥800 N/5 cm	≥900 N/5 cm	≥1100 N/5cm
Elongation at Break UNI EN 12311-2	≥ 80%	≥ 80%	≥ 80%	≥ 80%	≥ 80%
Tear resistance UNI EN 12310-2	≥ 150 N	≥ 170 N	≥ 180 N	≥ 200 N	≥ 220 N
Resistance to Impact UNI EN 12691	≥ 450 mm	≥ 800 mm	≥ 900 mm	≥ 1250 mm	≥ 1500 mm
Cold Bending UNI EN 495-5	≤ -25°C	≤ -25°C	≤ -25°C	≤ -25°C	≤ -25°C
Hydrostatic Pressure Resistance (6 hours at 5 bar) UNI EN 1928 meth. B	waterproof	waterproof	waterproof	waterproof	waterproof
Dimensional stability (%) after 6 hours at 80°C UNI EN 1107-2	≤ 0,1 %	≤ 0,1 %	≤ 0,1 %	≤ 0,1 %	≤ 0,1 %
Resistance to artificial weathering UNI EN 1297	No cracking	No cracking	No cracking	No cracking	No cracking
Root resistance UNI EN 13948	No penetration	No penetration	No penetration	No penetration	No penetration
Resistance to static punching UNI EN 12730	≥20 kg	≥20 kg	≥20 kg	≥20 kg	≥20 kg



MasterSeal® 705 DW

(Formerly known as Masterpren® PW)

Description Of Product

MasterSeal® 705 DW, is a synthetic membrane of plasticised PVC manufactured by co-extrusion. Designed specifically for the waterproofing and lining of tanks and containers intended to hold liquids for human consumption, especially drinking water. It is non-toxic in nature.

Fields Of Application

- Potable water tanks
- Reservoirs and tanks containing liquid food products for human consumption

Features And Benefits

- Non-toxic. Complies with local and international food and hygiene standards
- It has superior mechanical characteristics
- High mechanical properties and resistance to puncturing
- Rot-proof with a long life expectancy
- UV and light stable

Technical Data

	1,2 mm	1,5 mm	2,0 mm
Thickness UNI EN 1849-2	1,2 mm	1,5 mm	2,0 mm
Specific Weight UNI EN 1849-2	1,54 kg/m ²	1,92 kg/m ²	2,56 kg/m ²
Tensile Strength UNI EN ISO 527-3	≥17 N/mm ²	≥17 N/mm ²	≥17 N/mm ²
Elongation to Break DIN EN ISO 527-03	≥ 300%	≥ 300%	≥ 300%
Puncture Resistance DIN 16726-5.12	≥ 450 mm	≥ 800 mm	≥ 1100 mm
Cold Bending UNI EN 495-5	≤ -30°C	≤ -30°C	≤ -30°C
Hydrostatic Pressure Resistance (6 hours at 5 bar) UNI EN 1928 meth. B	waterproof	waterproof	waterproof
Root Resistance DIN 4062	No penetration	No penetration	No penetration
Suitable for Contact With Foodstuffs D.M 21/3/73	Suitable for Ia; Ib; IVa; IVb type foodstuffs	Suitable for Ia; Ib; IVa; IVb type foodstuffs	Suitable for Ia; Ib; IVa; IVb type foodstuffs
Resistance to Tearing UNI EN 12310-2	≥80 N/mm	≥80 N/mm	≥80 N/mm
Tear Resistance ISO 34 Specimen Fig.	≥45	≥45	≥45
Resistance to Oxidation Tensile Strength Variation UNI EN 14575	<25%	<25%	<25%
Resistance to Static Punching (CBR) UNI EN ISO 12236	≥1450	≥1800	≥2450
Resistance to weathering (12000 h) Tensile strength variation UNI EN 12224	<25%	<25%	<25%
Resistance to Leaching UNI EN 14415 Method A and B Tensile strength variation Loss in mass	<25% <5%	<25% <5%	<25% <5%

- Long life expectancy

Coverage

In order to calculate total consumption of Synthetic waterproofing membranes, it must be added quantity of 5% overlapping and 2-5% of loss depending upon the project conditions on the total application area.

Packaging

Thickness (mm)	1,2	1,5	2,0
Width (m)	2,10	2,10	2,10
Length (m)	20	20	20
Color	White		

Shelf Life

No shelf life limitation under appropriate storing conditions.



MasterSeal® 706 PZ

(Formerly known as Masterpren® PZ)

Description Of Product

MasterSeal® 706 PZ, is a synthetic membrane used for the protection of **MasterSeal®** PVC membrane in areas requiring a high degree of protection or an economical second layer of waterproofing.

Fields Of Application

- Protection of the **MasterSeal® 706 PZ** membrane in below ground building structures
- Protection and an economical double layered waterproofing in tunnels and TBM shafts

Features And Benefits

- Superior mechanical characteristics.
- High mechanical resistance and elasticity.
- Long life expectancy.
- Resistance to wash-out action.
- Resistance to root penetration.
- Resistance to bursting at high water pressure.
- Double seal allows pressure testing of joints.
- Loose laid to act independently of structural movement.

Coverage

In order to calculate total consumption of synthetic waterproofing membranes, it must be added quantity of 5% overlapping and 2-5% of loss depending upon the project conditions on the total application area.

Packaging

MasterSeal® 706 PZ	
Thickness	1,50 mm
Width	2,10 m
Length	20,00 m

Shelf Life

No shelf life limitation under appropriate storing conditions.

Technical Data

Thickness UNI EN 1849-2	1,50 mm
Specific Weight UNI EN 1849-2	2,040 kg/m ²
Tensile Strength UNI EN ISO 527-3	10,0 N/mm ²
Elongation at Break UNI EN ISO 527-3	100%
Resistance to Static Punching (CBR) UNI EN ISO 12236	1600 N



MasterSeal® 707 HE

(Formerly known as Masterpren® HE)

Description Of Product

MasterSeal® 707 HE, Synthetic membrane of plasticised PVC (two colour version light grey/ dark grey) manufactured by co-extrusion. This enables the production, of a single layer of membrane where the two surfaces have different chemical-physical properties. The upper surface (grey and exposed) is characterized by an extremely high resistance to weathering&UV rays, while the lower surface is characterised by an extremely high resistance to puncturing and root penetration.

Fields Of Application

- Water retaining structures
- Water features
- Reservoirs
- Artificial lakes
- Canals

Features And Benefits

- It has superior mechanical characteristics an extremely high resistance to weathering and ultra violet rays.
- High mechanical properties and resistance to puncturing.
- Rot-proof.
- Dimensionally stable.

- Resistant to hot-cold temperature cycles.
- Adequate resistance to chemicals when immersed in water.
- Resistant to root penetration.
- Long life expectancy.

Coverage

In order to calculate total consumption of synthetic waterproofing membranes, it must be added quantity of 5% overlapping and 2-5% of loss depending upon the project conditions on the total application area.

Packaging

Thickness (mm)	1,5	2,0	2,2
Width (m)	2,10	2,10	2,10
Length (m)	20	20	20
Colour	Light Grey, Dark Grey		

Shelf Life

No shelf life limitation under appropriate storing conditions.

Technical Data

	1,5 mm	2,0 mm	2,2 mm
Thickness UNI EN 1849-2	1,5 mm	2,0 mm	2,2 mm
Specific Weight UNI EN 1849-2	1,95 kg/m ²	2,60 kg/m ²	2,96 kg/m ²
Tensile Strength UNI EN ISO 527-3	≥17,5 N/5 cm ²	≥17,5 N/5 cm ²	≥17,5 N/5 cm ²
Elongation to break DIN EN ISO 527-03	≥ 300%	≥ 300%	≥ 300%
Puncture resistance DIN 16726-5.12	≥ 800 mm	≥ 1100 mm	≥ 1400 mm
Cold bending UNI EN 495-5	≤ -30°C	≤ -30°C	≤ -30°C
Hydrostatic Pressure Resistance 86 hours at 5 bar) UNI EN 1928 meth.B	Waterproof	Waterproof	Waterproof
Root Resistance DIN 4062	No penetration	No penetration	No penetration
Resistance to tearing UNI EN 12310-2	≥80 N/mm	≥80 N/mm	≥80 N/mm
Tear Resistance ISO 34 Specimen Fig. 2	≥45 N/mm	≥45 N/mm	≥45 N/mm
Resistance to Static Punching (CBR) UNI EN ISO12236	≥1800 N	≥2450 N	≥2800 N
Resistance to Static Punching (CBR) UNI EN 14575	<25%	<25%	<25%
Resistance to Weathering (12000 h) Tensile strength variation UNI EN 12224	<25%	<25%	<25%
Resistance to Leaching UNI EN 14415 meth A&B Tensile strength variation Loss in mass	<25% <5%	<25% <5%	<25% <5%



MasterSeal® 750 TPE

(Formerly known as Masterpren® TPE)

Description Of Product

MasterSeal® 750 TPE, TPO synthetic liner of TPO modified polyolefin, in two-colour version (sand grey/black), obtained by co-extrusion, which allows it to be produced in a single layer a liner with different physical-chemical properties on the two sides. It has a polyester mesh reinforcement. The upper sand grey layer, which is exposed, is characterised by an extremely high resistance to weathering and ultraviolet rays, whereas the lower black layer is resistant to puncturing.

Fields Of Application

- Exposed roofing laid loose
- Exposed roofing mechanically fixed
- Exposed roofing fully bonded (requiring a fleece backing)
- Landscaped areas and roof gardens
- May be used in underground structures and potable water structures

Features And Benefits

- It has superior mechanical characteristics and has an extremely high resistance to weathering and ultra violet rays.
- High mechanical properties and resistance to puncturing.

- Rot-proof.
- Resistance to root penetration.
- If double welded it allows pressure testing of joints.
- Good resistance to hydrocarbons and bacterial attack.
- Long life expectancy.

Coverage

In order to calculate total consumption of synthetic waterproofing membranes, it must be added quantity of 5% overlapping and 2-5% of loss depending upon the project conditions on the total application area.

Packaging

Thickness (mm)	1,2	1,5	1,8	2,0	2,5
Width (m)	2,10	2,10	2,10	2,10	2,10
Length (m)	20	20	20	20	20
Colour	Sand Grey, Black				

Shelf Life

No shelf life limitation under appropriate storing conditions.

Technical Data

Thickness UNI EN 1849-2	1,2 mm	1,5 mm	1,8 mm	2,0 mm	2,5 mm
Specific Weight UNI EN 1849-2	1,15 kg/m ²	1,40 kg/m ²	1,68 kg/m ²	1,85 kg/m ²	2,32 kg/m ²
Tensile Strength UNI EN 12311-2	≥1100 N/5cm	≥1100 N/5cm	≥1100 N/5cm	≥1100 N/5cm	≥1100 N/5cm
Elongation to Break UNI EN 12311-2	≥ 15%	≥ 15%	≥ 15%	≥ 15%	≥ 15%
Puncture Resistance DIN 16726-5,12	≥ 400 mm	≥ 700 mm	≥ 900 mm	≥ 1150 mm	≥ 1650 mm
Cold Bending UNI EN 495-5	≤ -40°C	≤ -40°C	≤ -40°C	≤ -40°C	≤ -40°C
Hydrostatic Pressure Resistance (6 hours at 5 bar) UNI EN 1928 method B	waterproof	waterproof	waterproof	waterproof	waterproof
Resistance to Artificial Weathering UNI EN 1297	No cracking	No cracking	No cracking	No cracking	No cracking
Root Resistance DIN 4062	No penetration	No penetration	No penetration	No penetration	No penetration
Resistance to Hail on Rigid Substrate UNI EN 13583	≥ 25 m/s	≥ 25 m/s	≥ 25 m/s	≥ 25 m/s	≥ 25 m/s
Dimensional Stability After 6 hours at 80°C- UNI EN 1107-2	≤ ±0,05 %	≤ ±0,05 %	≤ ±0,05 %	≤ ±0,05 %	≤ ±0,05 %
Tear Resistance UNI EN 12310-2	≥ 300 N	≥ 300 N	≥ 300 N	≥ 300 N	≥ 300 N
Thermal Ageing In Air After 168 d at 70°C Cold Bending UNI EN 1296	≤ -40°C	≤ -40°C	≤ -40°C	≤ -40°C	≤ -40°C
Peel Resistance of Joints UNI EN 12316-2	≥150N/50mm	≥150N/50mm	≥150N/50mm	≥150N/50mm	≥150N/50mm
Shear Resistance of Joints UNI EN 12317-2	Breaking out of joints	Breaking out of joints	Breaking out of joints	Breaking out of joints	Breaking out of joints
Resistance to Impact UNI EN 12691	10 mm	10 mm	10 mm	10 mm	10 mm
Resistance to Static Punching UNI EN 12316	≥ 20 kg	≥ 20 kg	≥ 20 kg	≥ 20 kg	≥ 20 kg



MasterSeal® 751 TPEF

(Formerly known as Masterpren® TPE-F)

Description Of Product

MasterSeal® 751 TPEF, synthetic liner of TPO modified polyolefin, by inserting polyester mesh reinforcement and 200 g/m² polyester fleece backing. Sand grey in colour obtained by coextrusion, with different physical-chemical properties on the two sides, single layer less than 20% of the material mass. The upper sand grey layer, which is exposed, is characterised by an extremely high resistance to weathering and ultraviolet rays, whereas the lower fleece backing layer resistance to puncturing and adhered to the substrate.

Fields Of Application

- Exposed roofing fully bonded
- Landscaped areas and roof gardens
- Mechanically fixing on incompatible substrate
- May be used in underground structures and potable water structures

Features And Benefits

- It has superior mechanical characteristics and has an extremely high resistance to weathering and ultra violet rays.
- High mechanical properties and resistance to puncturing.
- Resistance to root penetration.
- If double welded it allows pressure testing of joints.

Technical Data

Thickness UNI EN 1849-2	1,2 mm	1,5 mm	1,8 mm	2,5 mm
Specific Weight UNI EN 1849-2	1,35 kg/m ²	1,60 kg/m ²	1,88 kg/m ²	2,52 kg/m ²
Tensile Strength UNI EN 12311-2	≥1100 N/5cm	≥1100 N/5cm	≥1100 N/5cm	≥1100 N/5cm
Elongation to Break UNI EN 12311-2	≥15%	≥15%	≥15%	≥15%
Tear Resistance UNI EN 12310-2	≥300 N	≥300 N	≥300 N	≥300 N
Puncture Resistance DIN 16726-5,12	≥400 mm	≥700 mm	≥900 mm	≥1650 mm
Cold Bending UNI EN 495-5	≤- 40°C	≤- 40°C	≤-40°C	≤-40°C
Resistance to Artificial Weathering UNI EN 1297	No cracking	No cracking	No cracking	No cracking
Hydrostatic Pressure Resistance (6 hours at 5 bar) UNI EN 1928 Meth.. B	waterproof	waterproof	waterproof	waterproof
Dimensional Stability After 6 hours at 80°C – UNI EN 1107-2	± ≤0,5%	± ≤0,5%	± ≤0,5%	± ≤0,5%
Resistance to Hail on Rigid Substrate UNI EN 13583	≥25 m/s	≥25 m/s	≥25 m/s	≥25 m/s
Root Resistance DIN 4062	No penetration	No penetration	No penetration	No penetration
Thermal Ageing in Air After 168 d at 70°C, Cold Bending - UNI EN 1296	≤-40°C	≤-40°C	≤-40°C	≤-40°C
Peel Resistance of Joints UNI EN 12316-2	≥15 N/50 mm	≥15 N/50 mm	≥15 N/50 mm	≥15 N/50 mm
Shear Resistance of Joints UNI EN 12317-2	Breaking out of joint	Breaking out of joint	Breaking out of joint	Breaking out of joint
Resistance to Impact UNI EN 12691	10mm	10mm	10mm	10mm
Resistance to Static Punching UNI EN 12316	≥ 20 kg	≥ 20 kg	≥ 20 kg	≥ 20 kg

- Good resistance to hydrocarbons and bacterial attack.
- Long life expectancy.
- Resistance to wind stress.
- High environmental capability.
- Adaptability to structural movements.

Coverage

In order to calculate total consumption of synthetic waterproofing membranes, it must be added quantity of 5% overlapping and 2-5% of loss depending upon the project conditions on the total application area.

Packaging

Thickness (mm)	1,2	1,5	1,8	2,0	2,5
Width (m)	2,10	2,10	2,10	2,10	2,10
Length (m)	25	20	20	20	20
Colour	Sand Grey				

Shelf Life

No shelf life limitation under appropriate storing conditions.



MasterSeal® 752 TDE

(Formerly known as Masterpren® TDE)

Description Of Product

MasterSeal® 752 TDE, TPO synthetic liner of TPO modified polyolefin produced as a softer membrane to aid detailing work.

Fields Of Application

- Exposed roofing laid loose
- Exposed roofing mechanically fixed
- Exposed roofing fully bonded
- Landscaped areas and roof gardens

Features And Benefits

- It has superior mechanical characteristics and has an extremely high resistance to weathering and ultra violet rays.
- High mechanical properties and resistance to puncturing.
- Rot-proof.
- Resistance to root penetration.

- Good resistance to microbial attack.
- Long life expectancy.

Coverage

In order to calculate total consumption of synthetic waterproofing membranes, it must be added quantity of 5% overlapping and 2-5% of loss depending upon the project conditions on the total application area.

Packaging

Thickness (mm)	1,5 mm
Width (m)	2,10
Length (m)	20

Shelf Life

No shelf life limitation under appropriate storing conditions.

Technical Data

Thickness UNI EN 1849-2	1,5 mm
Weight UNI EN 1849-2	1,50 kg/m ²
Tensile Strength UNI EN 12311-2	≥15 N/mm ²
Elongation at Break UNI EN 12311-2	≥500 %
Tear Resistance UNI EN 12310-2	≥80 N/mm
Resistance to Impact DIN 16726-5,12	≥600 mm
Low Temperature Flexibility UNI EN 495-5	≤-35°C
Hydrostatic Pressure Resistance 86 hours at 5 bar) UNI EN 1928 method. B	waterproof
Resistance to Artificial Weathering (UV)	No cracking
Hail Resistance at Rigid Support UNI EN 13583	≥25 m/s
Resistance to Static Punching UNI EN 12730	≥20 kg



MasterSeal® 753 THE

(Formerly known as Masterpren® THE)

Description Of Product

MasterSeal® 753 THE, is a synthetic liner of TPO modified polyolefin, with fibre reinforced composite, in two-colour version (green/black), obtained by coextrusion. This allows production of a single layer liner with different physical/chemical properties on the two sides. The upper green layer, exposed, is characterised by a very high resistance to weathering and ultraviolet rays, whereas the lower black layer is resistant to puncturing and to roots.

Fields Of Application

- Water containment structures open to the elements
- Artificial lakes and water features
- Canal and water transportation structures
- Landscaped areas, gardens and golf courses

Features And Benefits

- It has superior mechanical characteristics and has an extremely high resistance to weathering and ultra violet rays.
- High mechanical properties and resistance to puncturing.
- Rot-proof.

Technical Data

	1,2 mm	1,5 mm	1,8 mm	2,0 mm	2,5 mm
Thickness UNI EN 1849-2	1,2 mm	1,5 mm	1,8 mm	2,0 mm	2,5 mm
Specific Weight UNI EN 1849-2	1,26 kg/m ²	1,58 kg/m ²	1,89 kg/m ²	2,10 kg/m ²	2,63 kg/m ²
Tensile Strength UNI EN ISO 527-3	≥10 N/mm ²	≥10 N/mm ²	≥10 N/mm ²	≥10 N/mm ²	≥10 N/mm ²
Elongation to Break UNI EN ISO 527-3	≥550%	≥550%	≥550%	≥550%	≥550%
Resistance to Impact Strength DIN 16726-5,12	≥400 mm	≥700 mm	≥900 mm	≥1100 mm	≥1600 mm
Cold Bending UNI EN 495-5	≤-35°C	≤-35°C	≤-35°C	≤-35°C	≤-35°C
Hydrostatic Pressure Resistance (6 hours at 5 bar) UNI EN 1928 met. B	waterproof	waterproof	waterproof	waterproof	waterproof
Tear Resistance ISO 34 Specimen Fig. 2	≥45 N/mm	≥45 N/mm	≥45 N/mm	≥45 N/mm	≥45 N/mm
Resistance to Static Punching (CBR) UNI EN ISO 12236	≥750 N	≥1000 N	≥1200 N	≥1350 N	≥1700 N
Resistance to Oxidation Tensile Strength Variation UNI EN 14575	<25%	<25%	<25%	<25%	<25%
Resistance to Weathering (12000 h) Tensile Strength Variation UNI EN 12224	<25%	<25%	<25%	<25%	<25%
Resistance to Leaching Tensile Strength Variation Loss in Mass UNI EN 14415 Method A and B	<25% <5%	<25% <5%	<25% <5%	<25% <5%	<25% <5%
Root Resistance DIN 4062	No penetration	No penetration	No penetration	No penetration	No penetration

The mechanical properties of the MasterSeal® 753 THE are the same as above except for the thickness of the dimples. On request TPO Liquid is also available for making joints and details

- Resistance to root penetration.
- Good resistance to microbial attack.
- Can be applied to a compacted soil base with a geotextile separation.
- Long life expectancy.

Coverage

In order to calculate total consumption of synthetic waterproofing membranes, it must be added quantity of 5% overlapping and 2-5% of loss depending upon the project conditions on the total application area.

Packaging

Thickness (mm)	1,2	1,5	1,8	2,0	2,5
Width (m)	2,10	2,10	2,10	2,10	2,10
Length (m)	25	20	20	20	20
Colour	Green				

Shelf Life

No shelf life limitation under appropriate storing conditions.



MasterSeal® 754

Description Of Product

MasterSeal® 754 is a pre-applied sheet membrane self-sealing system for a fast and simple installation process without the need of chemical based construction sealants. This unique system provides a durable mechanical bond, which is created when the fleece is completely adhered to the fresh concrete. **MasterSeal® 754** is cold-applied and pre-applied, as it is installed without heat or open flames, and before the steel reinforcement is placed and the concrete is poured.

Fields Of Application

- Below grade concrete slabs
- Below grade walls with both single (blindsided forming)
- For prefabricated construction

Features And Benefits

- No need protection screed.
- Provides excavation, time and labor savings.
- Fast installation: layout, jointing and detailing.
- Weather resistant
- No lateral water migration in the event of damage.
- Overlapping areas are self-adhesive. No need any extra tape to overlap.

- High elasticity at low temperatures.
- It is resistant to 5 bar water pressure according to DIN EN 928
- It is resistant to 100 psi (6,9 bar) water pressure according to ASTM D 5385-93
- High mechanical impact resistance.
- Reduced membrane joints with wider rolls.
- Resistant to aggressive mediums in soil.

Coverage

In order to calculate total consumption of synthetic waterproofing membranes, it must be added quantity of 10% overlapping and %2-3 of loss depending upon the project conditions on the total application area.

Packaging

Thickness (mm)	1,6
Width (m)	1,0
Length (m)	20,0

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions.



MasterSeal® 754

Technical Data

Property	Standard	Data
Description	-	FPO (Flexible Polyolefine)
Material Composition	-	Membrane: Flexible Polyolefine Coverage: modified Polypropylene needle-punch non-woven Self-adhesive strip: Butyl rubber, highly elastic, resistant to ageing and release liner
Colour	-	Grey/Black
Total Width	-	1000 mm
Non-woven Width	-	900 mm
Butyl Width	-	100 mm
Length Per Roll	-	20 m
Total Thickness	DIN EN 1849-2	1,6 mm (±0,2 mm)
Thickness (Waterproofing membrane)	DIN EN 1849-2	0,8 mm (±0,09 mm)
Total Weight (without butyl)	-	850 gr/m ² (±75 gr/m ²)
Resistance to temperature	-	-30°C / +60°C
Tear Resistance - Longitudinal	DIN EN 12311-2 Method A	400 N / 50 mm
Tear Resistance - Lateral	DIN EN 12311-2 Method A	340 N / 50 mm
Elongation at Break - Longitudinal	DIN EN 12311-2 Method A	%90
Elongation at Break - Lateral	DIN EN 12311-2 Method A	%120
Tear Resistance (Nail Shank)- Longitudinal	DIN EN 12310-1	370 N
Tear Resistance (Nail Shank) - Lateral	DIN EN 12310-1	380 N
Water Vapour Permeability	DIN EN 1931 Method B	60 m
Water Tightness	DIN EN 1928-A-60 kPa/24 std. DIN EN 1928-A-400 kPa/72 std.	watertight watertight
Resistance to Impact	DIN EN 12691	A-Alu plate ≤250 mm B-EPS Panel ≤2000 mm
Shear Resistance of The Joint Seams	DIN EN 12317-2	≥150 N/50 mm
Resistance to Static Loads	DIN EN 12730	Method A-EPS Panel ≤20 kg Method B-Substrate concrete ≤20 kg
Deformation Under Load	DIN EN 14909-Annex B (static load 300t/m ²)	No damage of sealing func-tion (FPO carrier film)
Hydrostatic Pressure	ASTM D 5385-93:2014	Pass (100 psi)
Puncture Resistance	ASTM D 4068-15 Annex A3	Pass
UV Resistance (Outside storing – direct sunlight)	-	Max. 4 weeks
Application Temperature	-	+5°C / +35°C
Reaction to Fire	DIN ISO 11925-2 and EN 13501	Class E
Quality Management	DIN EN ISO 9001:2015	Approved



MasterSeal® 754 IC

Description Of Product

MasterSeal® 754 IC inside corner for **MasterSeal® 754** membrane system.

Fields Of Application

MasterSeal® 754 IC, is an accessory which is used for **MasterSeal® 754** pre-applied waterproofing applications on horizontal direction at critical points.

Features And Benefits

- Provides easy application in the corner points.
- Combines perfectly with **MasterSeal® 754** membrane.

Coverage

Application requirements can vary according to the total consumption of the project.

Packaging

Thickness (mm)	1,3
Side Length (mm)	150
Height (mm)	100

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions.

Technical Data

Description	Special self-adhesive inside corner, on the sides and on top with additional butyl-stripes.	
Material Composition	Membrane: FPO-Flexible Polyolefine Coating: Self-adhesive butyl rubber, high elastic, resistant to ageing Protection: Release-Foil	
Application	Seailin for construction outside corners in conjunction with MasterSeal® 754	
Colour	Grey	
Side Length	150 mm	
Height	100 mm	
Total Thickness	1,3 mm	
Material Weight	102 gr/piece (with foil)	
Resistance to Temperature: min./max.	-30°C/+60°C	
Physical Properties	DIN	Value
Burst pressure: max.	Internal	>1,5 bar
Chemical Properties		Resistance to a wide range of chemical liquids
Certified according to DIN EN ISO 9001: 2008		



MasterSeal® 754 OC

Description Of Product

MasterSeal® 754 OC outside corner for MasterSeal® 754 membrane system

Application requirements can vary according to the total consumption of the project.

Fields Of Application

MasterSeal® 754 OC, is an accessory which is used for MasterSeal® 754 pre-applied waterproofing applications on horizontal direction at critical points.

Packaging

Thickness (mm)	1,3
Side Length (mm)	120
Height (mm)	100

Features And Benefits

- Provides easy application in the corner points.
- Combines perfectly with MasterSeal® 754 membrane.

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions.

Coverage

Technical Data

Description	Special self-adhesive outside corner, on the sides and on top with additional butyl-stripes.	
Material Composition	Membrane: FPO-Flexible Polyolefine Coating: Self-adhesive butyl rubber, high elastic, resistant to ageing Protection: Release-Foil	
Application	Sealing for construction outside corners in conjunction with MasterSeal® 754	
Colour	Grey	
Side Length	120 mm	
Height	100 mm	
Total Thickness	1,3 mm	
Material Weight	118 gr / piece (with foil)	
Resistance to Temperature: min./max.	-30°C + 60°C	
Physical Properties	DIN	Value
Burst pressure: max.	Internal	>1,5 bar
Chemical Properties		Resistance to a wide range of chemical liquids
Certified according to DIN EN ISO 9001: 2008		



MasterSeal® 926

Description Of Product

MasterSeal® M 926, FPO based joint tape designed for watertightness of expansion and construction joints. **MasterSeal® M 926** is highly elastic, root- proof and chemically resis-tant.

Fields Of Application

- Above and below ground applications
- Foundations and curtain walls
- Pools
- Treatment plants
- Tunnels
- Balconies and parapet joints
- Roofs and terraces
- Expansion joints together with sealant application
- Watertightness of dynamic cracks on the structures

- Easy to apply.
- User friendly, heat welding.
- Long lasting elasticity and service life.
- Keeps elasticity even in low temperatures.
- Resistant to tear, wear and abrasion.
- Resistant to bacteria and the deformation of chemicals attacks.
- Resistant to ozone and UV rays.

Packaging

20 mt rolls

Shelf Life

No shelf life limitation under appropriate storing conditions

Features And Benefits

Teknik Özellikler

Material	Flexible Polyolefine(FPO)
Color	Grey
Surface Structure	Smooth
Tensile Strength(DIN EN 12311-2 Method-2)	>6 N mm ²
Elongation at Break(DIN EN 12311-2 Method-2)	>%600
Tear resistance	>220 N
Watertightness(EN 1928,process B)	>3,6 bar
Shore A Hardness	~ 80
UV Resistance (SIA280/10)	>6500 h
Heat Welding	~ 270°C (1 mm thickness) ~ 360°C(2 mm thickness)
Contact With Bitumen	Yes
Service Temperature(SIA V280/3+4)	~30°C +80° C

Laboratory results are obtained +23°C.50% relative humidity conditions.Higher temperatures decrease,lower temperatures increase the times mentioned



MasterSeal® 934

Description Of Product

MasterSeal® 934 is butyl rubber coated tape. Butyl rubber tape has release liner with overlaps for easy removal.

Fields Of Application

MasterSeal® 934, is self-adhesive tape which is used for **MasterSeal® 754** pre-applied waterproofing applications at overlapping and damaged areas.

Features And Benefits

- Provides easy application at end points of membrane.
- It is used for damaged areas on membrane.
- Combines perfectly with **MasterSeal® 754** membrane

Coverage

Application requirements can vary according to the total consumption of the project.

Packaging

Thickness (mm)	1,00
Length (m)	20
Total Width (mm)	200

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions.

Technical Data

Description	Butyl rubber coated foil. Butyl rubber tape has release liner with overlaps for easy removal.	
Material composition	Substrate: Polypropylene foil Coating: Self-adhesive butyl rubber, high elastic, resistant to ageing Protection: Release-Foil	
Application	Bonding of edges in conjunction with MasterSeal® 754 membrane.	
Colour	Grey	
Total Width	200 mm	
Total Thickness	1,0 mm	
Material Weight	1130 gr/m ² (with foil)	
Length Per Roll	20 m (Alternative make ups upon request)	
Resistance to Temperature: min./max.	-30°C + 60°C	
Physical Per Roll	DIN	Value
Burst Pressure: max.	Internal	2,4 bar
Breaking Load Longitudinal	DIN EN ISO 527-3	145 N/15 mm
Breaking Load Lateral	DIN EN ISO 527-3	146 N/15 mm
Extension Break Longitudinal	DIN EN ISO 527-3	1740 %
Extension Break Lateral	DIN EN ISO 527-3	1773 %
Power Absorption at 25% Elasticity Lateral	DIN EN ISO 527-3	2,81 N/mm
Power Absorption at 50% Elasticity Lateral	DIN EN ISO 527-3	2,84 N/mm
Peel Test on Neutral PVC Carrier	Internal	>13 N/20 mm
Chemical Properties	Resistance to a wide range of chemical liquids	
Certified according to DIN EN ISO 9001: 2008		



MasterSeal® 935

Description Of Product

MasterSeal® 935 is double sided, long-term flexibility, butyl rubber coated tape. Butyl rubber tape has release liner for easy removal.

Fields Of Application

MasterSeal® 935, double sided butyl tape which is used for MasterSeal® 754 pre-applied waterproofing applications at critical details and damaged areas.

Features And Benefits

- Provides easy application at end points of membrane.
- It is used for damaged areas on membrane.
- Self - adhesive on double sided
- Combines perfectly with MasterSeal® 754 membrane.

Coverage

Application requirements can vary according to the total consumption of the project.

Packaging

Thickness (mm)	0,8
Length (m)	100
Total Width (mm)	100

Shelf Life

The shelf life is 12 months from the date of production under suitable storage conditions.

Technical Data

Description	Butyl rubber coated foil. Butyl rubber tape has release liner with overlaps for easy removal.
Material composition	Coating: Butyl rubber, high elastic, resistant to ageing Protection: Release-Foil
Application	Edges and points, damaged areas and pile heads
Colour	Grey
Total Width	100 mm
Total Thickness	0,8 mm
Material Weight	1050 gr/m ² (with foil)
Length Per Roll	100 m
Resistance to Temperature: min./max.	-30°C + 60°C
Chemical Properties	Resistance to a wide range of chemical liquids
Certified according to DIN EN ISO 9001: 2008	



MasterSeal® 901

(Formerly known as Masterflex® 801)

Description Of Product

MasterSeal® 901, is a multi-part, solvent free, water swelling vinyl ester based injection system that cures to form a flexible yet solid material with an excellent bond even to wet substrates. Depending on the degree of availability of moisture, the cured system swells reversibly up to 120% of its volume to act as an effective and permanent seal against ingress of water.

Fields Of Application

- **MasterSeal® 901**, is used for sealing cracks, joints and crevices in concrete, rock and masonry to prevent water ingress.
- Cracks, fissures and seams in the rocky strata of mines and tunnels.
- Stabilised cracks and non moving joints in structural concrete.
- Concrete construction joints using **MasterSeal® 909**

Features And Benefits

- Swells in contact with water by up to 120% - prevents water ingress even when the crack width varies.
- Water molecules held by molecular attraction captured water does not get transported through capillaries.

- Unaffected by cycles of swelling and shrinking continues to perform over long time, despite exposure to wetting and drying cycles.
- Good bond to damp surfaces-advantage in damp structures.
- Does not form foam or gas with water-the bond with substrates remains intact. Can withstand continuous and high water pressures.
- Adjustable reaction time between 20 and 60 minutes.

Packaging

MasterSeal® 901 is supplied as a 22.066 kg kit:
Resin 2x10.0 kg
Accelerator 2x1.0 kg
Hardener Powder 3x22 g

Shelf Life

12 months after the production date under appropriate storing conditions. **MasterSeal® 901** may freeze under 0°C. Tightly seal the cover of the opened pails and do not store more than one week.

Technical Data

Material	Resin Based
Colour	Yellow
Density at 20°C	Approx. 1,07 gr/ml
Viscosity at 20°C (mixture of components)	30-40 mPas
Ph-value at 20°C	>8,5
Solids Content	68 %
Chloride Content	<0,01 %



MasterSeal® 909

(Formerly known as Masterflex® 900)

Description Of Product

MasterSeal® 909, is an advanced injection hose system for installation in construction joints, ready for subsequent injection of cementitious or polymeric compounds to ensure watertightness. The hose construction is tough, flexible, resilient and chemically inert. It is not affected by low temperature and immersion in water. **MasterSeal® 909** is designed to replace waterbar for use in concrete structures which contain joints other than expansion joints and subject to hydrostatic pressure on one or both faces of the structure.

Fields Of Application

- Water reservoirs/tanks
- Canals
- Dams
- Sewage treatment plants
- Liquid storage vessels
- Any sub base concrete construction
- Water excluding or retaining structures

Features And Benefits

- Water cannot penetrate treated joint and rebar, unlike traditional installation where water is in contact with the reinforcement up to the waterbar.
- Fast easy installation procedures even to complicated design detail.
- System enables retro-injection, to stop leaks caused subsequently by settlement or structural movement at the construction joint.
- Completely maintenance free.

- Installation allows testing for water leaks.
- Hose is re-injectible and permits re-injection if leakage persists or reappears at a later date.
- Neoprene strips act as “one way valves” and prevents injection material from returning even under back pressure.
- Solid inner core does not collapse under concrete pressure. Allows smooth flow of injected material.
- Chemically inert does not deteriorate even if exposed to such injection materials as polyurethanes, vinyls esters, epoxies and cements
- Flexible and easy installation at corners without cutting and jointing.

Packaging

Two boxes comprising the following:

Box 1

100 meters blue re-injectable hose

Box 2

- a) 20 meters green vent hose
- b) 20 meters transparent vent hose
- c) 2 meters shrink on sleeve
- d) 2 meters connecting nozzle
- e) 30 closure plugs
- f) 500 anchor clips

Shelf Life

No shelf life limitation under appropriate storing conditions.

Technical Data

Material	PVC
Color	Blue
External Diameter	19 mm
Longitudinal Injection Hole Diameter	6 mm
Discharge Holes Diameter	3 mm



MasterSeal® 910

(Formerly known as Masterflex® 610)

Description Of Product

MasterSeal® 910, is a new generation water swelling joint bar that expands on water contact due to its three dimensional polymer chain structure.

Fields Of Application

- Pools
- Water tanks
- All kinds of structures that are exposed to sea water
- Treatment plants
- Tunnel segments
- All construction joints subject to water
- Steel profiles and pipes penetrations
- As flange in PVC pipe penetrations

Features And Benefits

- Easy to apply compared to conventional weterstops and minimizes negative risks that may cause from workmanship.
- When **MasterSeal® 910** contacts with water, it expands in an ideal speed and doesn't damage green concrete.
- Three dimensional polymer chains does not change its structure and its homogeneity during swelling.

- It expands up to 170%.
- This dimension change enables the material to form a water barrier in the reinforced concrete structure and fill in possible gaps.
- Resistant to various chemicals.
- Resistant to oil, fuel-oil, and various solvents.
- Resistant to waters that have high salt concentration.
- Its molecular structure is not affected from volume increases due to freezing of the water it contains.
- Resistant to microorganisms.

Packaging

Size;
20 x 10 mm : 30 m vacuum polyethylene bag
20 x 5 mm : 30 m vacuum polyethylene bag

Shelf Life

12 months after the production date under appropriate storing conditions. Can be stored for a long time in cool and dry environment. Opened packages have to be stored by tightly sealing the cover, and must be used in a short time.

Technical Data

Material	Modified Acrylic Polymers
Color	Red
Resistant to Water Pressure	50 m (5 bar)
Swelling Ratio (in 7 days in water)	%170
Water Leakage (in movements of construction joint up to 5 mm)	No leakage
Application Temperature	-30°C + 50°C

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterSeal® 911

Description Of Product

MasterSeal® 911, is a one component adhesive, based on a modified silane polymer used to secure the **MasterSeal® 910** swelling gasket to all common substrates in construction.

Fields Of Application

- Adhesive for **MasterSeal® 910**,
- Facades,
- Elastic bonding in building, construction, metal industry in their applications
- Plastic, hard PVC, wood, rubber, natural and synthetic stone, for bonding many surfaces such as concrete

Features And Benefits

- It prevents the adhesion of profiles to smooth and rough surfaces.
- In damp and wet environments after curing preserves its flexibility

- It crust quickly and does not bubble.
- UV resistant
- Does not contain solvent, isocyanate or silicone
- High adhesive performance
- Do not lose volume

Packaging

290 ml cartridge

Shelf Life

9 Months from production date.

Technical Data

MasterSeal® 911	MS Polymers
Color	White
Density	~1,5 gr/cm ³
Smell	None
Viscosity	Paste
Solid Content	100%
Curing system	Air with humidity
Curing speed	~3,5mm/24 hour
Crust	20 minutes
Shore A(DIN 53504)	70 ±5
Tensile Strength	~3,30 N/mm ²
Elongation	≥ %110
Application Temperature	5-35°C
Service Temperature	30°C + 80°C

Values are consider on +23 C and %50 humidity.



MasterSeal® 930

(Formerly known as Masterflex® 3000)

Description Of Product

MasterSeal® 930, TPE based joint tape desinged for watertightness of expansion and construction joints. **MasterSeal® 930** is highly elastic, rootproof and chemically resistant.

- Resistant to tear, wear and abrasion.
- Root resistant. (FLL certified)
- Resistant to bacteria and the deformation of chemicals attacks.
- Resistant to ozone and UV rays

WRAS Approval - "Suitable for use in contact with Potable Water". BS 6920 : 2000

Packaging

20 mt rolls

Width (mm)	100	150	150	200	200	300	300	500	500
Thickness mm	1	1	2	1	2	1	2	1	2
Length mm	20	20	20	20	20	20	20	20	20

Fields Of Application

- Above and below ground applications
- Foundations and curtain walls
- Pools
- Treatment plants
- Tunnels
- Balconies and parapet joints
- Roofs and terraces
- Expansion joints together with sealant application
- Watertightness of dynamic cracks on the structures

Shelf Life

No shelf life limitation under appropriate storing conditions.

Features And Benefits

- Easy to apply.
- User friendly, heat welding.
- Long lasting elasticity and service life.
- Keeps elasticity even in low temperatures.

Technical Data

Material	Thermoplastic Polyethylene (TPE)
Color	Light Grey (~RAL 7045)
Surface Structure	Smooth
Tensile Strength (EN ISO 527-1)	>6 N/mm ²
Elongation at Break (EN ISO 527-1)	>% 400
Resistance to Further Cracking (DIN 53363)	>6 N/cm
Watertightness (EN 1928, process B)	>8 bar
Shore A Hardness (ISO 868)	~80
UV Resistance (SIA280/10)	>7500 h
Heat Welding	~270°C (1 mm thickness) ~360°C (2 mm thickness)
Contact With Bitumen	Yes
Service Temperature (SIA V280/3+4)	-30°C +80°C

Laboratory results are obtained +23°C, 50% relative humidity conditions. Higher temperatures decrease, lower temperatures increase the times mentioned.

THIS SIDE UP

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Sealants

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SEALANTS PRODUCT SUGGESTION TABLE

Products	MasterSeal® 440	MasterSeal® 473 RC	MasterSeal® NP 474	MasterSeal® NP 472	MasterSeal® CR 125	MasterSeal® CR 170 Gun	MasterSeal® CR 171 Pouring	MasterSeal® HY 495	MasterWeld® 908	MasterWeld® 902
Vertical Applications	•	•	•	•	•	•	•	•		
Horizontal Applications		•	•	•		•				
Roofing Applications	•	•	•	•			•	•		
Wet Rooms	•			•			•			
Pipe Penetrations	•	•		•	•		•			
Pedestrian Traffic		•	•	•	•	•	•			
Vehicular Traffic		• ¹	• ¹		•	•	•	• ¹		
Airports(runway/apron/taxi away)				•	•	•				
Industrial		• ¹	• ¹		•	•	•	•	•	•
Water Immersed Joints					•	•	•			
Domestic Waste Water		• ¹	• ¹		•	•				
Swimming Pools					•	•	•	•		
Sea Water		• ¹	• ¹		•	•				
Below Ground Applications	•	•	•	•	•	•	•			
Chemical Resistance	• ²				• ²	• ²	• ²			
Fuel Resistance				•	•	•				
Cladding	•						•	•		
Expansion Joints	•			•	•	•	•			
Naturel Stone Joints		•	•				•			
Fixing of Different Construction Materials	•	•	•	•			•	•	•	
Steel and Iron Plate Surface							•	•		
Ceramic and Non Porous Surface										
Raw Concrete Surface							•			

•¹ Limited Resistance

•² Consult to Master Builders Solutions Yapı Kimyasalları San. ve Tic. Ltd. Şti. Technical Service



MasterSeal® 440

(Formerly known as Masterflex® 540)

Description Of Product

MasterSeal® 440, polyurethane based, single part, UV and weathering resistant elastomeric joint sealant.

EQ Credit 4.1: Adhesive and Sealants (VOC) A+French VOC

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Above grade joints of structures
- Restoration of joints in old and new buildings
- Parapet corners on roof and terraces
- Joints of prefabricated parts
- Moving joints up to 25%
- Connection joints between wood window, doorframes and walls
- Expansion joints between many different construction materials, especially concrete movement
- Between precast wall panels
- Precast rain gutter, roof drain pipes and parapet joints
- Joints and termination details of siding like PVC and aluminum
- To prevent leakage in aluminum, metal, PVC and woodworks and in termination details

Features And Benefits

- Single part, ready and easy to use
- No sagging, thixotropic
- No surface tackiness after full cure, dirt repellent surface
- Can be applied easily with hand gun
- Paintable *
- Cures with the humidity in the air
- Excellent elongation and elastic recovery Properties
- Highly flexible

Technical Data

MasterSeal® 440	Polyurethane Based
Density	1,20 ± 0,03 g/ml
Shore A Hardness	25 - 30
Elongation at Breaks (ISO 8339)	≥ %120
Elongation at Breaks (ASTM D412)	≥ %700
Tensile Strength (ASTM D412)	1,0 - 1,5 N/mm ²
Elasticity Moduls (ISO 8339)	0,30 – 0,40 N/mm ² ≥0,60 N/mm ²
	23°C -20°C
Application Temperature	+5°C - +40°C
Service Temperature	-40°C - +70°C
Cured	24 h 7 d 2,5 mm Fully Cured
Paintable	Yes

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations.

**Considering the diversity of paint base and quality, compatibility tests should be done before application.*

- No primer required on most substrates
- Weathering resistant and do not change its physical properties during service life
- Enables perfect bonding to concrete, stone, metal, wood, PVC and other construction materials
- Resistant to aggressive chemicals
*before painting, field mock – up should be done to ensure best end result.

Coverage

The oretical joint sealing length with **MasterSeal® 440** sausage (600 ml):

Joint Width	15 mm	20 mm	25 mm	30 mm	35 mm
Joint Depth	8 m	10 mm	12 mm	15 mm	15 mm
Joint Length 600 ml	5 m	3 m	2 m	1,3 m	1,1 m

Standard Colors

White
Black
Grey
Aluminium Grey
Limestone
Offwhite
Tan
Redwood
Brown

Packaging

310 ml cartridge
(There are 30 pieces in box)
600 ml sausage
(There are 20 pieces in box)

Shelf Life

12 months after production date under appropriate storage conditions.



MasterSeal® 473 RC

Description Of Product

MasterSeal® 473 RC, is a polyurethane based high modulus elastomeric fast curing joint sealant resistant to weather conditions, UV resistant and degradations caused by chemical substances in the atmosphere.

EQ Credit 4.1: Adhesive and Sealants (VOC) A+French VOC

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Joints of structures that are above ground
- Restoration of old and new buildings
- Connection joints between wood window, doorframes and walls
- Parapet corners on roofs and terraces
- Joints of prefabricated elements
- Between precast wall panels
- Moving joints up to 25%
- Precast rain gutter, roof drain pipes, and parapet joints
- Joints of PVC or aluminum sidings
- To prevent leakage in aluminum, metal, PVC, and wooden woodworks and in junction details

Features And Benefits

- Fast curing
- Easy and quick application
- Single part
- Ready to use
- Moisture curing
- Highly flexible
- Enables perfect bonding on concrete, stone, metal, wood and other construction materials
- Can be applied on many surfaces without primer
- Weather conditions do not change its physical properties during service period

Technical Data

MasterSeal® 473 RC	Polyurethane Based	
Density	1,23 ± 0,03 g/ml	
Shore A Hardness	35 - 40	
Elastic Recovery (ISO 7389)	≥ %70	
Elongation at Breaks (ASTM D412)	≥ %600	
Tensile Strength (ASTM D412)	1,5 - 2,0 N/mm ²	
Elasticity Modulus (ISO 8339)	23°C	0,30 -0,40 N/mm ²
	-20°C	≥0,60 N/mm ²
Application Temperature	+5°C - +40°C	
Service Temperature	-40°C - +90°C	
Cured	24 h	4 mm
	7 d	Fully Cured
Paintable	Yes*	

- Limited chemical resistance
- No sagging, thixotropic
- No surface tackiness after full cure, dirt repellent surface
- Can be applied easily with hand gun
- Paintable*
*before painting, field mock – up should be done to ensure best end result.

Coverage

Theoretical joint lengths with **MasterSeal® 473 RC** sausage (600 ml):

Joint Width	15 mm	20 mm	25 mm	30 mm	35 mm
Joint Depth	8 mm	10 mm	12 mm	15 mm	15 mm
Joint Length 600 ml	5 m	3 m	2 m	1,3 m	1,1 m

Standard Colors

White
Black
Concrete Grey
Off White

Packaging

310 ml cartridge
(There are 30 pieces in box)
600 ml sausage
(There are 20 pieces in box)

Shelf Life

9 months after the production date under appropriate storage conditions. Opened packages must be used.

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations.

*Considering the diversity of paint base and quality, compatibility tests should be done before application.



MasterSeal® NP 472

Description Of Product

MasterSeal® NP 472, is a polyurethane based elastomeric joint sealant with experience in weather conditions, UV rays and atmosphere.

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Above grade joints of structures
- Restoration of joints in old and new buildings
- Parapet corners on roof and terraces
- Joints of prefabricated parts
- Moving joints up to 25%
- Connection joints between wood window, doorframes and walls
- Expansion joints between many different construction materials, especially concrete movement
- Between precast wall panels
- Precast rain gutter, roof drain pipes and parapet joints
- Joints and termination details of siding like PVC and aluminum
- To prevent leakage in aluminum, metal, PVC and woodworks and in termination details

Features And Benefits

- Single part, ready and easy to use
- No sagging, Thixotropic
- No surface tackiness after full cure, dirt repellent surface
- Can be applied easily with hand gun
- Paintable *
- Cures with the humidity in the air
- Excellent elongation and elastic recovery properties
- Highly flexible
- No primer required on most substrates
- Weathering resistant and do not change its physical properties during service life
- Enables perfect bonding to concrete, stone, metal,

- wood, PVC and other construction materials
- Resistant to aggressive chemical before painting, field mock – up should be done to ensure best end result.

* before painting, field mock – up should be done to ensure best end result.

Coverage

Theoretical joint sealing length with **MasterSeal® NP 472** sausage (600 ml):

Joint Width	15 mm	20 mm	25 mm	30 mm	35 mm
Joint Depth	8 m	10 mm	12 mm	12 mm	12 mm
Joint Length / 600 ml	5 m	3 m	2 m	1,6 m	1,4 m

Standard Colors

- White
- Black
- Grey
- Aluminium Grey
- Concrete Grey
- Off White
- Tan
- Brown

Packaging

- 310 ml cartridge
(There are 30 pieces in box)
- 600 ml sausage
(There are 20 pieces in box)

Shelf Life

12 months after production date under appropriate storage conditions.

Technical Data

MasterSeal® NP 472	Polyurethane Based
Density	1,15 ± 0,03 g/ml
Shore A Hardness	20 ± 5
Elongation at Breaks	≥ %600
Tensile Strength at Breake	≥1,20 N/mm ²
Application Tempretature	+5°C - +35°C
Service Temparature	-30°C - +80°C
Cured (24 hours)	2 mm
Paintable	Yes*

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations.
*Considering the diversity of paint base and quality, compatibility tests should be done before application.



MasterSeal® NP 474

(Formerly known as Masterflex® 474)

Description Of Product

MasterSeal® NP 474, is a polyurethane based elastomeric joint sealant resistant to weather conditions, UV resistant and degradations caused by chemical substances in the atmosphere.

EQ Credit 4.1: Adhesive and Sealants (VOC) A+French VOC

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Joints of structures that are above ground
- Restoration of old and new buildings
- Connection joints between wood window, doorframes and walls
- Parapet corners on roofs and terraces
- Joints of prefabricated elements
- Between precast wall panels
- Moving joints up to 25%
- Precast rain gutter, roof drain pipes, and parapet joints
- Joints of PVC or aluminum sidings
- To prevent leakage in aluminum, metal, PVC, and wooden woodworks and in junction details
- Industrial floor applications

Features And Benefits

- Easy and quick application
- Single part
- Ready to use
- Moisture curing
- Highly flexible
- Enables perfect bonding on concrete, stone, metal, wood and other construction materials
- Can be applied on many surfaces without primer
- Weather conditions do not change its physical properties during service period
- Limited chemical resistance
- No sagging, thixotropic

Technical Data

MasterSeal® NP 474	Polyurethane Based	
Density	1,20 ± 0,03 g/ml	
Shore A Hardness	35 - 40	
Elongation at Breaks (ISO 8339)	≥ %200	
Elongation at Breaks (ASTM D412)	≥ %600	
Tensile Strength (ASTM D412)	1,5 - 2,0 N/mm ²	
Elasticity Modulus (ISO 8339)	23°C	0,30 – 0,40 N/mm ²
	-20°C	≥0,60 N/mm ²
Application Temperature	+5°C - +40°C	
Service Temperature	-40°C - +90°C	
Cured	24 h	3 mm
	7 d	Fully Cured
Paintable	Yes*	

- No surface tackiness after full cure, dirt repellent surface
- Can be applied easily with hand gun
- Paintable*
*before painting, field mock – up should be done to ensure best end result

Coverage

MasterSeal® NP 474 Theoretical joint lengths with sausage (600 ml):

Joint Width	15 mm	20 mm	25 mm	30 mm	35 mm
Joint Depth	8 m	10 mm	12 mm	15 mm	15 mm
Joint Length	5 m	3 m	2 m	1,3 m	1,1 m

Standard Colors

White
Off White
Limestone
Aluminum Grey
Grey
Black
Redwood
Tan
Brown

Packaging

310 ml cartridge
(There are 30 pieces in box)

600 ml sausage
(There are 20 pieces in box)

Shelf Life

15 months after the production date under appropriate storage conditions. Opened packages must be used.

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations.

*Considering the diversity of paint base and quality, compatibility tests should be done before application



MasterSeal® CR 125

(Formerly known as Sonomeric® 1)

Description Of Product

MasterSeal® CR 125, (Self Leveling) is a bitumen modified polyurethane based, self leveling elastomeric joint sealant resistant to weathering, UV rays, and degradations caused by chemical substances in the atmosphere.

Standards

ASTM C 920, Type S- Grade P, Use T, M, NT, Class 25

Federal Specification TT-S-0023°C, Type I, Class A

Corps of Engineers CRD-C-541, Type I, Class A

Fields Of Application

- Interior and exterior areas on horizontal applications
- Expansion joints
- Industrial floor joints
- Horizontal joints exposed to sunlight, water, chemical materials, and industrial wastes
- Airport runways
- Highways and bridges
- Terraces and balconies
- Warehouses and garages
- Gas stations
- Car parks and areas open to traffic.
- Joints of stone, brick, concrete, framing and gratings of walking ways and sidewalks.

Features And Benefits

- Single part.
- Ready to use.
- Does not require primer on most substrates.
- Easy to apply.

Technical Data

Material	Bitumen Modified Polyurethane
Color	Black
Density	1,08 gr/cm ³
Shore A Hardness (ASTM C 661)	28
Tensile Strength (ASTM D412)	1,70 N/mm ²
Elongation in Break (ASTM D412)	%1200
Service Temperature	-40°C +80°C

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.

- Self leveling.
- Moisture curing.
- Jet fuel resistant
- Enables perfect bonding on concrete, stone, metal, wood and other construction materials.
- Highly flexible.
- Jet fuel resistant
- Weather conditions do not change its physical properties during service period.

Coverage

Theoretical joint lengths with 1 liter of **MasterSeal® CR 125**:

Joint Depth	Joint Depth				
	6 mm	10 mm	20 mm	30 mm	40 mm
6 mm	27,78 m	16,67 m			
10 mm			5,00 m		
13 mm				2,56 m	1,92 m

Packaging

20.412 kg tin

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the cover, and must be used in one week.



MasterSeal® CR 170/171

Description Of Product

MasterSeal® CR 170/171, is a polysulphide based elastomeric joint sealant highly resistant to weathering, UV rays, and degradations caused by chemical substances in the atmosphere, jet fuel and oils.

Standards

Complies with ETA-12/0485
Complies with ETA-12/0486

Fields Of Application

- Interior and exterior areas for horizontal applications
- Joints of structures that are under the ground and constantly exposed to water
- Airport runways and aprons
- Power plants
- Highways and bridges
- Fuel tanks
- Gas stations
- Warehouses and garages
- Industrial floors exposed to pedestrian and heavy vehicle traffic
- Stadiums
- Terraces and balconies
- Areas exposed to sunlight, water, chemical materials and industrial wastes
- Free of chlorinated paraffins
- Approved for its use in facilities of storage, handling and filling of substances hazardous to water by DIBt (Deutsches Institut für Bautechnik)
- Resistant to fuels, oils and a large number of other chemicals (see chemical and substance resistance lists in European Technical Approval)

Features And Benefits

- Two parts.
- Self leveling and gun grade types.

- Easy and quick to apply.
- High chemical resistance.
- Perfect adhesion to different materials with suitable primer. (Concrete, steel, etc.)
- Weather conditions do not change its physical properties during service life.

Coverage

Theoretical joint lengths by using 1 liter of

MasterSeal® CR 170/171:

Joint Depth	Joint Depth				
	10 mm	20 mm	30 mm	40 mm	50 mm
5 mm	20 m				
10 mm		5,0 m			
15 mm			2,23 m		
20 mm				1,25 m	
25 mm					0,80 m

Packaging

MasterSeal® CR 170: is available in 3,74 lt cans

Part A: 3.44 lt

Part B: 0.30 lt

MasterSeal® CR 171: is available in 4 lt cans

Part A: 3.70 lt

Part B: 0.30 lt

Shelf Life

For **MasterSeal® CR 170/171** is 9 months after the production date under appropriate storing conditions.

Technical Data

Material	
MasterSeal® CR 170/171 Part A	Polysulphide
MasterSeal® CR 170/171 Part B	Mangandioxide
Color	Grey and Black
Density (MasterSeal® CR 170)	1,58 kg/lt (3,44;0,3 by volume)
Density (MasterSeal® CR 171)	1,63 kg/lt (3,70;0,3 by volume)
Shore A Hardness (ISO 7619-1)	25
Solid Content	%100
Elastic Recovery (gun grade/pouring grade)	%80-%90
Service Temperature	-20°C +60°C
Movement Ability	±30%
Curing Period	24-48 h
Open Time	30-120 m

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterSeal® HY 495

Description Of Product

MasterSeal® HY 495, MS polymer based, single part, extreme joint movement capacity, UV and weathering resistant elastomeric joint sealant.

EQ Credit 4.1: Adhesive and Sealants (VOC) A+French VOC

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Above grade joints of structures
- Restoration of joints in old and new buildings
- Parapet corners on roof and terraces
- Joints of prefabricated parts
- Moving joints up to 25%
- Connection joints between wood window, doorframes and walls
- Expansion joints between many different construction materials, especially concrete movement
- Between precast wall panels
- Precast rain gutter, roof drain pipes and parapet joints
- Joints and termination details of siding like PVC and aluminum
- Can be used tunnel, subway, dams etc. structures
- To prevent leakage in aluminum, metal, PVC and woodworks and in termination details

Features And Benefits

- Single part, ready and easy to use
- No sagging, high thixotropic
- No bubble formation, even in wet and humid condition
- No surface tackiness after full cure, dirt repellent surface
- Does not contain solvent, silicone and isocyanate
- Paintable *

Technical Data

MasterSeal® HY 495	MS Polymer Based
Density	1,38 ± 0,03 gr/ml
Color	Off white, white, black or concrete grey
Shore A Hardness (ISO 868)	25 ± 5
Elasticity Modulus (ISO 8339)	< 0,4 N/mm ²
Paintable	Yes*
Elongation at Breaks (ISO 37)	≥ %350
Tensile Strength (ISO 37)	1,0 - 1,5 N/mm ²
Sagging (ISO 7390)	0 mm
Volume Loss	< - %3
Joint Movement Capacity	± %25
Tack Free Time	60 m
Curing Rate	2,5 mm/24 h
Service Temperature	-40°C - +90°C
Application Temperature	+5°C - +40°C

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations.

**Considering the diversity of paint base and quality, compatibility tests should be done before application.*

- Cures with the humidity in the air
- Excellent elongation and elastic recovery properties
- Low modulus - can withstand extreme joint movement
- No primer required on most substrates
- Weathering resistant and do not change its physical properties during service life
- Enables perfect bonding to concrete, stone, metal, wood, PVC and other construction materials
- Resistant to aggressive chemicals
*before painting, field mock – up should be done to ensure best end result.

Coverage

Theoretical joint sealing length with **MasterSeal® HY 495** sausage (600 ml):

Joint Width	10 mm	15 mm	20 mm	25 mm	30 mm
Joint Depth	5 mm	8 mm	10 mm	12 mm	15 mm
Joint Length 600 ml	12 mm	5 m	3 m	2 m	1,3 m

Standard Colors

Offwhite
White
Concrete Grey
Black

Packaging

290 ml cartridge (There are 30 pieces in box)
600 ml sausage (There are 20 pieces in box)

Shelf Life

12 months after production date under appropriate storage conditions.



MasterWeld® 902

Description Of Product

MasterWeld® 902, is polyurethane based, two components, elastic adhesive.

Fields Of Application

- Industrial rubber coatings
- Bonding all types of parquets
- Bonding artificial grass sports ground applications
- Bonding rubber sheets to different surfaces such as; concrete, hardboard, chipboard
- Bonding metal, ceramic, concrete, wood etc.

Features And Benefits

- Two components
- Excellent bonding to applied surfaces
- Suitable for use in adverse weather conditions
- Solvent free
- No smell
- Flexible

Coverage

MasterWeld® 902 shall be applied 0,9- 1,1 kg/m² for 1mm thick applications.

Packaging

24 kg set:
Part A -21 kg metal tin
Part B – 3 kg metal tin

Shelf Life

12 months after production date under appropriate storage conditions.

Technical Data

MasterWeld® 902	Polyurethane Based
Viscosity (cps)	Thixotropic
Density (25 oC)	
Part A	1,85 gr/ml
Part B	1,20 gr/ml
Solids	%100
Mix ratio	7:1 A:B (by weight)
Open time (min.)	45- 60 (23 °C- %50 R.H.)
Tack free time (hr)	1,5-2 (23 °C- %50 R.H.)
Full curing	7 days



MasterWeld® 908

Description Of Product

MasterWeld® 908, is MS polymer based, one component, universal, high tack, high strength power adhesive. **MasterWeld® 908** can be used to fix heavy building materials by bonding.

EQ Credit 4.1: Adhesives and Sealants (VOC) A+French VOC

Fields Of Application

- Installation of sound isolation panels (stone wool, wood and plastic foam panel)
- Installation of thermal isolation panels
- Fixing of facade and roof elements in frames
- Fixing of doorsteps, window sills, skirting boards and cover plates Bonding of panels, profiles and other pieces on the most common substrates such as; stone, concrete, mirror, glass, plasterboard, PU, PVC, polyester, plastic, ceramic, copper, lead, zinc, aluminium, wood etc.

Features And Benefits

- One component, ready and easy to use
- No sagging
- Paintable *
- Does not shrinkage
- No primer required on most substrates (Test recommended before application)
- Does not contain solvent, silicone or isocyanate
- Excellent elasticity

- Excellent adhesion
- Cures with the humidity in the air
- Waterproof
- Conforms to French A+ VOC emission regulations *before painting, field mock – up should be done to ensure best end result.

Coverage

Theoretical joint sealing length with **MasterWeld® 908** cartridges

Joint Widht	10 mm	15 mm	20 mm
Joint Depth	5 mm	8 mm	10 mm
Joint Length 290 ml	6 m	2.5 m	1.5 m

Packaging

290 ml cartridge (There ara 30 pieces in box)

Shelf Life

12 months after production date under appropriate storage conditions.

Technical Data

MasterWeld® 908	MS Polymer Based
Density	1,49 ± 0,03 gr/ml
Color	White
Shore A Hardness (ISO 868)	55 ± 5
Elongation at Break (ISO 37)	≥ %300
Volume Loss	< - %3
Tack Free	15 - 20 minutes
Curing Rate	2,5 mm/24 hours
Tensile Strength (ISO 37)	3,0 - 3.5 N/mm ²



Repair & Protection Systems





Historical Structures and Restoration

HISTORICAL STRUCTURES and RESTORATION PRODUCT SUGGESTION TABLE

		Products							
		MasterInject® 222	MasterInject® 224	MasterEmaco® S 285 TIX	MasterEmaco® N 275 TIX	MasterEmaco® A 265	MasterEmaco® A 235	MasterEmaco® N 275	MasterSeal® 275
Repair of Column,Beam and RC Walls									
Slab and Plate Repairs									
Manhole Covers and Precast Channel Installations									
Repair of Concrete Cover									
Airport and harbor Area Repair									
Harbor,Wharf and Water Structure Repair									
Surface Reporfilling In Structural Repairs									
Concrete Surface Levelling And Plaster Repair									
Surface Levelling Before Painting									
Historical Masonry Building - Repair of Joints			•	•	•	•	•	•	•
Historical Masonry Building - Non - Strucutral Repair				•	•	•	•	•	•
Historical Masonry Building - Structural Repair			•						
Historical Masonry Building - Injections		•	•						
Historical Masonry Building - Waterproofing of Structures								•	
Protection of Mineral Based Surfaces(Concrete, Stone,Brick,Marble,Etc)Against Environmental Conditions									
Corrosion Protection									
Protection of Concrete and Steel Surface									
Corrosion Repairs									
Repairs of Tie-rod Holes									
Repairs Before Insulaton(Beveling and Segregation)									
APPLICATION TYPE	Application With Form								
	Trowel Applications		•	•			•		
	Brush Applications							•	
	Roll Applications							•	
	Spraying Applications								
	Injections Applications	•	•						



MasterInject® 222

(Formerly known as Albaria® Iniezione)

Description Of Product

MasterInject® 222, is an injection mortar that is used in the crack repair and consolidation of the masonry elements that contains puzolanic lime and micronized carbonates.

Fields Of Application

MasterInject® 222, is an injection mortar that is used for repair purposes in brick, stone or tufa containing historical buildings especially in places where cracks have been formed and supporting capacity has been lost.

MasterInject® 222 is used in;

- Consolidating themasonry walls under sulphate attacks,
- Consolidating the masonry domes and vaults,
- In the filling of small or large voids in the walls,
- Cracks repairs in masonry elements,
- Consolidating the masonry foundations.

Features And Benefits

- Cement free
- Can be used in environments under sulphate attacks
- It doesn't react with original building materials neither physically, nor chemically
- The superior hydraulic nature of the binder enables the injection mortar to penetrate into the building deeply With the assistance of the medium elasticity

modulus, it is ideal in the filling of small and large voids even in bearing problems due to the high moisture content of the original building material

- Does not affect the vapour and moisture permeability of the existing building
- It shows limited expansion that does not cause to any additional internal stresses in the masonry elements
- Does not bleed
- Easy to inject even under low pressures
- Water-born salts (alkalis, sulphates, chlorides or nitrates), are limited

Coverage

1.50 kg/lt

Packaging

15 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Includes Puzolanic Lime and Micronized Carbonates		
Color	Off white – Light brow		
Grain Size of Injection Mortar	0,1-30 µm D ₈₅ =15 µm	KR	
Compressive Strength (20°C) TS EN 196 7 days 28 days	>7,0 N/mm ² >13 N/mm ²		
Flow (DIN Cup, No.6) At the Beginning 20 Minutes Later	<35 sn <45 sn		
Application Temperature	+5°C +35°C		
Pot Life (+20°C)	30 minutes		

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations.



MasterInject® 224

Description Of Product

MasterInject® 224, is an injection mortar that is used in the crack repair and consolidation of the masonry elements that contains hydraulic lime and micronized carbonates. **MasterInject® 224** is an injection mortar that is used for repair purposes in brick, stone or tufa containing historical buildings especially in places where cracks have been formed and supporting capacity has been lost. **MasterInject® 224** is used in;

Fields Of Application

- Consolidating the masonry walls under sulphate attacks
- Consolidating the masonry domes and vaults,
- In the filling of small or large voids in the walls
- Cracks repairs in masonry elements
- Consolidating the masonry foundations

Features And Benefits

- Cement free
- Can be used in environments under sulphate attacks.
- It doesn't react with original building materials neither physically, nor chemically
- The superior hydraulic nature of the binder enables the injection mortar to penetrate into the building deeply. With the assistance of the medium elasticity modulus, it is ideal in the filling of small and large

voids even in bearing problems due to the high moisture content of the original building material

- Does not affect the vapour and moisture permeability of the existing building
- It shows limited expansion that does not cause to any additional internal stresses in the masonry elements
- Does not bleed
- Easy to inject even under low pressures
- Water-born salts (alkalis, sulphates, chlorides or nitrates), are limited
- Although the aggregate size is large, aggregates does not settle in slurry

Packaging

15 kg bag

Coverage

1.50 kg/lt

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Properties	Standart	Data	Unit
Product chemistry	-	Hydraulic Lime and Micronized Carbonates	-
Colour	-	Off white / Light Brown	-
Density	-	1,93 ± 0,05	kg/lt
Application Temperature	-	+5°C +40°C	Celcius
Grain Size of Injection Mortar	-	0,1 – 40	µm
Pot Life	-	30	minute
Flow At the beginning 20 minutes later	DIN CUP No 6	< 35 < 50	second
Compressive Strength	EN 1015 – 11	> 7,5	N/mm ²
Flexural Strength	EN 1015 – 11	> 1,0	N/mm ²
Water Vapour Permeability	EN 1745	15/35 µ	-
Capillary Water Absorption	EN 1015 – 18	≤ 1,0	kg/(m ² .min ^{0.5})
Reaction to Fire	EN 13501 - 1	A1	-



MasterEmaco® S 285 TIX

(Formerly known as Albaria® Struttura)

Description Of Product

MasterEmaco® S 285 TIX, is puzolanic lime based, cement-free, high strength, thixotropic repair mortar for restoration of historical buildings.

Complies with EN 998/2 M15

Fields Of Application

- Repair and strengthening of masonry walls
- Repair and strengthening of arches and vaults
- Repair of lime based plasters
- Strengthening of the masonry walls by using FRP bars in joints of masonry walls
- Repair and strengthening of foundations of masonry structures
- Used as a cement-free concrete by adding aggregates in repair of masonry slabs, domes and walls

Features And Benefits

- Cement free
- High mechanical strength

- High bonding strength
- Water-born salts (alkalis, sulphates, chlorides or nitrates), are limited
- Ready-pack
- Does not affect the vapour and moisture permeability of the existing building
- Low capillary water absorption
- Efflorescence resistant

Coverage

17 kg/m² for obtaining 10 mm thick layer

Packaging

20 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Includes Puzolanic Lime and Well Graded Natural Aggregate.	
Water Vapour Permeability EN 1745	μ<35	WK
Water-Born Salts UNI 11087	Electical Conductivity < 80 μS.cm ⁻¹ SO ₄ <%1 Na ⁺ <%0,05 K ⁺ <%0,05	
Capillary Water Absorption UNI EN 1015/18	0,2 kg.m ⁻² .min-0,5	
Compressive Strength UNI EN 1015/11	15-20 N/mm ²	
Modulus of Elasticity UNI EN 13412	16,000 N/mm ²	
Application Temperature	+5°C +40°C	



MasterEmaco® N 275 TIX

(Formerly known as Albaria® Intonaco)

Description Of Product

MasterEmaco® N 275 TIX, is natural hydraulic lime based, cement-free, ready-pack mortar for restoration of historic buildings.

Fields Of Application

- Plastering the masonry walls in indoor and outdoor,
- Repair of lime based plasters,
- Repair of masonry and natural stone joints,
- Refilling of masonry walls.

Features And Benefits

- Cement free
- Shrinkage compensated
- Ready-pack
- It doesn't react with original building materials neither physically, nor chemically
- Does not affect the vapour and moisture permeability of the existing building

- Water-born salts (alkalis, sulphates, chlorides or nitrates), are limited

Coverage

17 kg/m² for obtaining 10 mm thick layer.

Packaging

20 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Includes Natural Hydraulic Lime and Natural Fillers	
Color	From off-white to Brown	WK
Compressive Strength (20°C) TS EN 196 7 days	>15 kg/cm ²	
Grain Size	0-3 mm	
Mineral Fibers	Legenth: 6 mm	
Application Temperature	+5°C +35°C	
Pot Life (20°C)	30 m	
Fully Cured at (+20°C)	7 d	

* Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations.



MasterEmaco® A 265

(Formerly known as Albaria® Calce Albazzana)

Description Of Product

MasterEmaco® A 265, is cement-free, natural hydraulic lime burnt at low temperatures (900°C) for lime mortar production.

Fields Of Application

- Plastering production
- Building of masonry walls
- Building of masonry and natural stone joints

Features And Benefits

- Cement free
- Burnt with traditional methods at low temperatures
- Can be used in production of different lime mortars compatible with existing building materials
- Does not affect the vapour and moisture permeability of the existing building

Coverage

Depends on the mix design of lime mortar.

Packaging

25 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Natural Hydraulic Lime
Color	Light Brown
Application Temperature	+5°C +40°C

MasterEmaco® N 215 FC

(Formerly known as Albaria® Stabilitura)

Description Of Product

MasterEmaco® N 215 FC, is natural hydraulic lime based, cement-free, ready-pack mortar for smooth surfaces under paintings in restoration of historical buildings.

Fields Of Application

- Providing with smooth surfaces before painting
- Surface levelling on lime mortars
- Repair of lime based plasters

Features And Benefits

- Cement free.
- Water-born salts (alkalis, sulphates, chlorides or nitrates), are limited
- Ready-pack

- High bonding on plaster
- Does not affect the vapour and moisture permeability of the existing building
- Low capillary water absorption
- Efflorescence resistant

Coverage

1.4 kg/m² for obtaining 1 mm thick layer.

Packaging

25 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Includes Natural Hydraulic Lime, Micronized Carbonates and Fine Aggregates	KR
Color	Off-White	
Aggregate Size	0-0,6 mm	
Compressive Strength EN 196	11 kg/cm ² (90 days)	
Water Vapour Permeability	μ <14	



MasterEmaco® A 235

Description Of Product

MasterEmaco® A 235, is cement-free, hydraulic lime burnt at low temperatures (900°C) for lime mortar production.

TS EN 459-1
KUDEB
EN 998/2

Fields Of Application

- Plastering production
- Building of masonry walls
- Building of masonry and natural stone joints

Features And Benefits

- Cement free

- Burnt with traditional methods at low temperatures
- Can be used in production of different lime mortars compatible with existing building materials
- Does not affect the vapour and moisture permeability of the existing building

Packaging

15 kg'lik kraft bag

Coverage

Depends on the mix design of lime mortar

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Properties	Performans	Data	Unit
Product chemistry	-	Hydraulic Lime	-
Colour	-	Light Beige	-
Density (kg/lt)	-	0,85 ± 0,05	Kg/lt.
Application Temperature	-	+5°C +40°C	Celcius
Pot Life (dk)	-	50	minute
Compressive Strength (Mpa)	EN 1015-11	3,5	N/mm ²
Flexural Strength (Mpa)	EN 1015-11	1,2	N/mm ²
Water Vapour Permeability	EN 1745	15/35 μ	-
Capillary Water Absorption	EN 1015-18	≤ % 2,0	Kg/(m ² .min ^{0,5})
Reaction to Fire	EN 13501-1	A1	-



MasterEmaco® A 275

Description Of Product

MasterEmaco® A275, is cement-free, hydraulic lime burnt at low temperatures (900°C) for lime mortar production.

TS EN 459 – 1
KUDEB
EN 998/2

Fields Of Application

- Plastering production
- Building of masonry walls
- Building of masonry and natural stone joints

Features And Benefits

- Cement free
- Burnt with traditional methods at low temperatures

- Can be used in production of different lime mortars compatible with existing building materials
- Does not affect the vapour and moisture permeability of the existing building

Packaging

15 kg kraft bag

Coverage

Depends on the mix design of lime mortar

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Properties	Performans	Data	Unit
Product chemistry	-	Hydraulic Lime	-
Colour	-	Light Beige	-
Density (kg/l)	-	0,85 ± 0,05	Kg/l.
Application Temperature	-	+5°C +40°C	Celcius
Pot Life (dk)	-	50	minute
Compressive Strength (Mpa)	EN 1015-11	5	N/mm ²
Flexural Strength (Mpa)	EN 1015-11	1,5	N/mm ²
Water Vapour Permeability	EN 1745	15/35 μ	-
Capillary Water Absorption	EN 1015-18	≤ % 2,0	Kg/(m ² .min ^{0.5})
Reaction to Fire	EN 13501-1	A1	-



Concrete Repair Mortars



MasterEmaco[®] S 423

(Formerly known as Emaco[®] S23 NB)

Description Of Product

MasterEmaco[®] S 423, is cement based one part, high strength, polymer modified, and self compacting non-shrink grout.

- Resistant to water and weather conditions
- Perfect bonding to the concrete and steel
- Water proof
- Non-Shrink

Fields Of Application

- Large volume repairs,
- High rise buildings such as beams, columns and walls
- Columns, piers and cross beams on highway structures
- Marine and other civil structures
- Tunnels, pipes and other below ground construction
- Fixing of pre-cast concrete elements
- Fixing of the turbines on the foundations
- Fixing of the generators, compressors and pumps on the foundations
- Fixing of the industrial machines on the foundations
- Fixing of the steel columns on the RC foundations
- Filling of the voids in the jacketing applications

Coverage

22 kg/m² for obtaining 1 cm thick layer

Packaging

25 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Features And Benefits

- Mixed with only water and can be applied easily
- High compressive strength
- High fluid consistency
- Free of bleeding

Technical Data

Product Chemistry	Mineral fillers, and polymer modified cement	
Colour	Grey	
Compressive Strength (TS EN 12190)		
1 day	>30 N/mm ²	
7 day	>50 N/mm ²	
28 day	>60 N/mm ²	
Flexural Strength (28 day) (TS EN 196)	>8 N/mm ²	MK
Bonding Strength (28 day)		
To concrete	>2 N/mm ²	
To steel	>2 N/mm ²	
Elasticity Modulus (28 day) (TS EN 13412)	>20,000 N/mm ²	
Application Modulus	Min. 20 mm Maks. 100 mm	
Application Temperature	+5°C +30°C	
Service Temperature	-20°C +400°C	
Pot Life	45 m	
Fully Cured at 23°C	28 d	

**Depending up on the area thicker applications can be done. Please apply Master Builders Solutions*

***Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations*



MasterEmaco® S 488 PG

(Formerly known as Emaco® S88)

Description Of Product

MasterEmaco® S 488 PG, is cement based one part, polymer modified, fibre reinforced, pourable, structural repair mortar.

EN 1504-3/R4

Fields Of Application

- Repair of the reinforced concrete elements
- Protection of the concrete against sulphate and chloride attacks
- Repair of the marine structures
- Repair of the underground structures
- Structural and non-structural repairs of high strength concrete elements
- Surface repair of the RC elements before polymer coating applications
- Repair of the tie-rod, test and cone holes

Features And Benefits

- Mixed with only water and can be poured into form easily
- Perfect bonding to the concrete and steel
- High strength
- Waterproof
- Resistant to freeze-thaw cycle
- Resistant to sulphate and chloride attacks
- Resistant to oils
- Shrinkage compensated

Coverage

19.40 kg/m² for obtaining 1cm thick layer

Packaging

25 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Mineral Fillers, Fibre and POLYMER Modified Cement	
Color	Grey	
Compressive Strength (20°C) TE EN 12190		
1 day	>20 N/mm ²	
7 days	>50 N/mm ²	
28 days	>60 N/mm ²	
Flexural Strength (20°C) (28 days) TS EN 196	>8,0 N/mm ²	
Bonding Strength (to concrete) (28 days)	>2,0 N/mm ²	
Elasticity Modulus (28 days)	>20.000 N/mm ²	MK
Capillary Water Adsorption (TS EN 13057)	≤0,5 kg.m ² .h ^{-0,5}	
Application Thickness	Min. 10 mm Maks. 50 mm	
Application Temperature	+5°C +30°C	
Service Temperature	-20°C +400°C	
Pot Life 20°C	30 m.	
Fully Cured at 20°C	24 days	





MasterEmaco® S 488

(Formerly known as Emaco® S88C)

Description Of Product

MasterEmaco® S 488, is cement based one part, polymer modified, fibre reinforced, thixotropic structural repair mortar.

Complies with EN 1504-3/R4

Fields Of Application

- Structural repairs of deep segregations on reinforced concrete members
- Protection of the concrete against sulphate and chloride attacks
- Repair of the marine structures
- Repair of the underground structures
- Structural and non-structural repairs of high strength concrete elements
- Surface repair of the RC elements before polymer coating applications
- Repair of the tie-rod, test and cone holes

Features And Benefits

- Mixed with only water and can be applied easily
- Perfect bonding to the concrete and steel.
- High strength

- Thixotropic and can be used in over-head applications
- Waterproof
- Resistant to freeze-thaw cycle
- Resistant to sulphate and chloride attacks
- Resistant to oils
- Shrinkage compensated

Coverage

19.20 kg/m² for obtaining 1 cm thick layer.

Packaging

25 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Mineral Fillers, Fibre and Polymer Modified Cement		
Color	Grey		
Compressive Strength TS EN 12190 (1 day) (7 day) (28 days)	>25 N/mm ² >50 N/mm ² >70 N/mm ²		
Flexural Strength TS EN 196 (28 days)	>8,0 N/mm ²		
Bonding Strength to concrete (28 days)	>2,0 N/mm ²		
Elasticity Modulus (28 days)	>20.000 N/mm ²	MK	
Capillary Water Absorption (TS EN 13057)	<0,5 kg.m ² .hour ^{0.5}		
Application Thickness	Min. 10 mm Maks. 50 mm		
Application Temperature	+5°C +30°C		
Service Temperature	-20°C +400°C		
Pot Life	30 m		
Fully Cured at 20°C	24 d		

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations



MasterEmaco® P 300

(Formerly known as Masterseal® 300 T)

Description Of Product

MasterEmaco® P 300, is cement based one component, polymer modified, anti-corrosion coating and primer.

Fields Of Application

- Corrosion protection of the reinforcement,
- Priming the concrete substrates prior to repair mortar applications.

Features And Benefits

- Mixed with only water and can be applied easily.
- Perfect bonding to the concrete and steel.

- High mechanical strengths.
- Protects the reinforcement against humid

Coverage

1.55 kg/lt

Packaging

20 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Mineral Fillers, Corrosion Inhibitors and Polymer Modified Cement	
Color	Grey	WK
Compressive Strength (28 days) TS EN 196	> 30 N/mm ²	
Bonding Strength (7 days) To Concrete To Steel	> 1,5 N/mm ² > 1,0 N/mm ²	
Application Temperature	+5°C +30°C	
Pot Life	60 minutes (20°C)	
Fully Cured at 20°C	28 days (20°C)	

* Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations.



MasterEmaco® T 500 PG

Description Of Product

MasterEmaco® T 500 PG, cement based, one component, polymer modified, pourable, fast setting levelling mortar.

- High fluidity
- Non – segregate and doesn't bleed
- Resistance to freeze – thaw cycle

Complies with EN 1504 – 3

Packaging

25 kg bag

Fields Of Application

- Manhole levelling,
- Repair of sewage and manhole walls,
- Repair of tracks and runway concrete pavements,
- Fixing of the kurbstone and pavers

Coverage

Approximately 22 kg/m² for obtaining 10 mm thick layer

Features And Benefits

- Mixed with only water and can be applied easily
- Fast setting and can be opened to service in 1hour
- High compressive strength

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry MasterEmaco® T 500 PG	Mineral Fillers and Polymer Modified Cement
Fresh Mortar Density	2,29 g/cm ³
Compressive Strength (TS EN 12190)	
1 hour	≥ 10,0 N/mm ²
1 day	≥ 25,0 N/mm ²
7 days	≥ 55,0 N/mm ²
Bonding Strength (TS EN 1542)	≥ 2,0 N/mm ²
Flexural Strength (EN 196-1)	≥ 8,0 N/mm ²
Application Thickness	
max.	50 mm
min.	10 mm
Pot Life (+23°C)	5 minutes
Elasticity Modulus (TS EN 13412)	≥ 20 Gpa
Application Temperature	+5°C - +30°C
Open to Traffic (+20°C)	1 h
Service Temperature (at +23°C)	-15°C - +80°C
Fully Cured (at +20°C)	28 days



MasterEmaco® T 1100 TIX

(Formerly known as Emaco® Fast Tixo)

Description Of Product

MasterEmaco® T 1100 TIX, is a single component, fast setting and hardening thixotropic repair and bedding mortar that meets the requirements of the new European Norm EN 1504 part 3 class R4.

MasterEmaco® T 1100 TIX is a ready-to-use material that contains sulphate resistant Portland cement (HSR LA), hydraulic binders, well graded sands, specially selected polymer fibres (PAN-polyacrylonitril) and special additives provide rapid strength build-up even at sub-zero temperatures, improved durability and unmatched, low drying shrinkage.

When mixed with water, **MasterEmaco® T 1100 TIX** forms a plastic/thixotropic mortar which can be easily applied by hand.

MasterEmaco® T 1100 TIX can be used in thicknesses from 10 mm up to 150 mm.

Fields Of Application

- Bedding small to medium size manhole frames.
- Bedding curb stones and pavement stones
- Horizontal patch repair areas
- Inclined patching areas
- Optimizing traffic management.
- Both internal and external use.
- Use in cold conditions or cold store rooms.
- Applications under the most difficult jobsite conditions.
- Where very short traffic disruption periods are required.

Features And Benefits

- Ultra rapid strength build-up.
- **MasterEmaco® T 1100 TIX** can be opened to all traffic in just 2 hours.
- Excellent application properties
- Higher thickness possible with the addition of gravel
- Can be used at sub-zero temperatures as low as -10°C.
- Very high early and final strengths.
- Excellent adhesion and excellent durability.
- Extra low shrinkage for durability.
- Minimized cracking tendency due to constrained shrinkage by PAN fibres.
- Excellent freeze-thaw resistance.
- Very good reinforcement protection due to very low water absorption and good carbonation resistance.
- Very good skid resistance, even in wet conditions.
- Very high resistance to hydrocarbons.

Coverage

Approx. 1,950 kg powder is needed to prepare 1 m³ of fresh mortar. 25 kg bag will yield approximately 12.9 litres of mortar.

Packaging

MasterEmaco® T 1100 TIX is available in 25 kg paper bags.

Shelf Life

12 months if stored at above mentioned storage conditions.



MasterEmaco® T 1100 TIX

(Formerly known as Emaco® Fast Tixo)

Technical Data

Property	Standart	Değer		Birim
Chemical Base	-	Cement		-
Color	-	Grey		-
Grain Size	EN 1015-17	3,15		mm
Chloride Ion Content	-	≤0.05		%
Layer Thickness Minimum Maksimum	-	10 ¹ - 25 ² 100 ¹ - 150 ²		mm
Fresh Mortar Density	-	Approx. 2,20		g/cm ³
Mixing Water for 25 kg Bag	-	Ca. 3,5 - 3,7		l
Working Time ³	-	18		Minute
Open to Traffic (at 20°C) light traffic heavy traffic	-	60 120		Minute
Application Temperature (ambient and substrate)	-	-10 - +30		°C
Modulus of Elasticity	EN 13412	≥ 30.000		N/mm ²
Compressive Strength 2 h 4 h 1 d 7 d 28 d	EN 12190	+20°C 25 35 50 70 80	+5°C C5 - - 40 70 80	N/mm ²
Flexural Strength 1 d 7 d 28 d	EN 196-1	≥ 7 ≥ 8 ≥ 10		N/mm ²
Adhesion to Concrete 28 days	EN 1542	≥ 3,0		N/mm ²
Adhesion to Concrete 28 days	EN 13687-1	≥ 3,0		N/mm ²
Carbonation resistance 28 days	EN 13295	dk ≤ Ref. Concrete		mm
Skid Resistance 28 days	EN 13036-4	Class III - tested wet		
Capillary Absorption 28 day	EN 13057	≤ 0,1		kg.m ⁻² .h ^{-0.5}
Cracking Tendency (I)	Coutinho Ring	No Cracking		Up to 180 days
Drying Shrinkage 28 days	EN 12617-4	≤ 0,300		mm/m
Pull out strength of steel rebar 28 days	Rilem-CEB- FIP RC6-78)	≥ 20		N/mm ²

Note: 1 Used as repair mortar

2 Used as bedding mortar

3 Hardening times are measured at 21°C ± 2°C and %60 ± %10 relative humidity. Higher temperatures will reduce these times and lower temperatures will extend them. Technical data shown are statistical results and do not correspond to guaranteed minima. Tolerances are those described appropriate performance standards.

4 Curing, water and powder temperature: 20°C

5 Curing; water and powder temperature: +5°C



MasterEmaco® T 1200 PG

(Formerly known as Emaco® Fast Fluid)

Description Of Product

MasterEmaco® T 1200 PG, is a single component, fast setting and hardening pourable repair and bedding mortar that meets the requirements of the new European Norm EN 1504 part 3 class R4.

MasterEmaco® T 1200 PG is a ready-to-use material that contains sulphate resistant Portland cement (HSR LA), hydraulic binders, well graded sands, specially selected polymer fibres (PAN–polyacrylonitril) and special additives provide rapid strength build-up even at sub-zero temperatures, improved durability and unmatched, low drying shrinkage.

When mixed with water, **MasterEmaco® T 1200 PG** forms a mortar with a fluid or flowable consistency which can be easily applied by hand or machine.

MasterEmaco® T 1200 PG can be used in thicknesses from 10 mm up to 150 mm.

Fields Of Application

- Bedding small to large size manhole frames, using formwork.
- Flowable or fluid horizontal repair.
- Grouting pavement stones.
- Fixing street furniture.
- Optimizing traffic management.
- Both internal and external use.
- Use in cold conditions or cold store rooms.
- Applications under the most difficult jobsite conditions.
- Where very short traffic disruption periods are required.

Features And Benefits

- Ultra rapid strength build-up.
- **MasterEmaco® T 1200 PG** can be opened to all traffic in just 2 hours.
- Excellent application properties
- Higher thickness possible with the addition of gravel
- Flowable or fluid consistency for ease of application.
- Can be used at sub-zero temperatures as low as -10°C.
- Very high early and final strengths.
- Excellent adhesion and excellent durability.
- Extra low shrinkage for durability.
- Minimized cracking tendency due to constrained shrinkage by PAN fibres.
- Excellent freeze-thaw resistance.
- Very good reinforcement protection due to very low water absorption and good carbonation resistance.
- Very good skid resistance, even in wet conditions.
- Very high resistance to hydrocarbons.

Coverage

Approx. 2.000 kg powder is needed to prepare 1 m³ of fresh mortar. 25 kg bag will yield approximately 12.4 litres of mortar.

Packaging

MasterEmaco® T 1200 PG is available in 25 kg paper bags.

Shelf Life

12 months if stored at above mentioned storage conditions.



MasterEmaco® T 1200 PG

(Formerly known as Emaco® Fast Fluid)

Technical Data

Property	Standard	Data	Unit																		
Chemical Base	-	Cement	-																		
Color	-	Grey	-																		
Grain Size	EN 1015-17	3,15	mm																		
Chloride Ion Content	-	≤0.05	%																		
Layer Thickness min. max.	-	10 ¹ - 25 ² 100 ¹ - 150 ²	mm																		
Fresh Mortar Density	-	Approx. 2,25	g/cm ³																		
Mixing Water for 25 kg Bag	-	2,7 - 3,2	l																		
Working Time ³	-	20	minute																		
Open to Traffic (at 20°C) light traffic Heavy traffic	-	60 120	minute																		
Application Temperature (ambient and substrate)	-	-10 - +30	°C																		
Modulus of Elasticity	EN 13412	≥ 30.000	N/mm ²																		
Compressive Strength 2 h 4 h 1 d 7 d 28 d	EN 12190	<table border="1"> <thead> <tr> <th>+20°C</th> <th>+5°C</th> <th>-5°C</th> </tr> </thead> <tbody> <tr> <td>45</td> <td>3</td> <td>9</td> </tr> <tr> <td>55</td> <td>30</td> <td>25</td> </tr> <tr> <td>70</td> <td>60</td> <td>55</td> </tr> <tr> <td>90</td> <td>80</td> <td>75</td> </tr> <tr> <td>100</td> <td>95</td> <td>85</td> </tr> </tbody> </table>	+20°C	+5°C	-5°C	45	3	9	55	30	25	70	60	55	90	80	75	100	95	85	N/mm ²
+20°C	+5°C	-5°C																			
45	3	9																			
55	30	25																			
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90	80	75																			
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Flexural Strength 1 d 7 d 28 d	EN 196-1	<table border="1"> <tbody> <tr> <td>≥ 7</td> </tr> <tr> <td>≥ 8</td> </tr> <tr> <td>≥ 10</td> </tr> </tbody> </table>	≥ 7	≥ 8	≥ 10	N/mm ²															
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≥ 10																					
Adhesion to Concrete 28 days	EN 1542	≥ 3,0	N/mm ²																		
Adhesion to Concrete 28 days After Freeze-Thaw (50 cycles with salt)	EN 13687-1	≥ 3,0	N/mm ²																		
Carbonation resistance 28 days	EN 13295	dk ≤ Ref. Concrete	mm																		
Skid Resistance 28 days	EN 13036-4	Class III – tested wet																			
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Cracking Tendency (I)	Coutinho Halkası	No Cracking	Up to 180 days																		
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Note: 1 Used as repair mortar

2 Used as bedding mortar

3 Hardening times are measured at 21°C ± 2°C and %60 ± %10 relative humidity. Higher temperatures will reduce these times and lower temperatures will extend them. Technical data shown are statistical results and do not correspond to guaranteed minima. Tolerances are those described appropriate performance standards.

4 Curing, water and powder temperature: 20°C

5 Curing, water and powder temperature: +5°C



MasterEmaco® N 356 RS

(Formerly known as Emaco® R 356)

Description Of Product

MasterEmaco® N 356 RS is a polymer modified, fast setting, ready to use repair and waterproofing mortar that contains special cement and minerals.

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications.
- Filling of water leakages before waterproofing applications.
- Waterproofing of door and window frames.
- Filling tie-rod cavities inside molds.
- Camfering of corners joints, and repairing cold joints.
- Anchorage of components that are not bearing critical loads.

Features And Benefits

- Single component, only mixed with water.
- Easy to use, quick setting.

Coverage

Varies

Packaging

5 kg polyethylene reinforced kraft bag

Shelf Life

6 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.

Technical Data

Material	Mineral Fillers and Polymer Modified Special Cement.
Color	Grey
Compressive Strength	≥15 N/mm ² (7 days)
Substrate Temperature	+5°C + 25°C
Pot Life	3-5 minutes

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterEmaco® N 600

(Formerly known as Emaco® R 600)

Description Of Product

MasterEmaco® N 600, is cement based one part, polymer modified repair mortar for nonstructural repairs on concrete structures.

Complies with EN 1504-3/R1

Fields Of Application

- Repairing and reprofiling the concrete surfaces,
- Repairing and plastering the exposed concrete,
- Repairing and plastering the slabs and ceilings,
- Repair of the defects on the concrete surfaces before coating (tile etc.) applications.

Features And Benefits

- Mixed with only water and can be applied easily
- Provides smooth surfaces
- Perfect bonding to the concrete substrates
- Can be applied in wide areas without cracking
- Provides high thixotropic properties

Coverage

15.50 kg/m² for obtaining 10 mm thick layer.

Packaging

20 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Mineral Fillers, Fibre and Polymer Modified Cement	
Color	Grey	MK
Compressive Strength TS EN 196 (28 days)	>10 N/mm ²	
Bonding Strength to concrete (28 days)	>1,0 N/mm ²	
Application Thickness	Min. 5 mm Max. 30 mm	
Application Temperature	+5°C + 30°C	
Pot Life	30 minutes	
Fully Cured at 20°C	28 days	

* Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations.



MasterEmaco® N 601

(Formerly known as Emaco® R 601)

Description Of Product

MasterEmaco® N 601, is cement based one part, polymer modified filling mortar for smooth surfaces under paintings.

Complies with EN 1504-3/R1

Fields Of Application

- Providing smooth surfaces before painting,
- Plastering the slabs and ceilings and repair of plasters,
- Repair of the defects on the concrete surfaces before coating (tile etc.) applications.

Features And Benefits

- Mixed with only water and can be applied easily
- Provides smooth surfaces on concrete
- Easily covered with paints

- Perfect bonding to the concrete substrates
- Can be applied in wide areas without cracking

Coverage

1.20 kg/m² for obtaining 1 mm thick layer.

Packaging

20 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Mineral Fillers and Polymer Modified Cement	
Color	White	MK
Compressive Strength TS EN 196 (28 days)	>10 N/mm ²	
Bonding Strength to concrete (28 days)	>0,8 N/mm ²	
Application Thickness	Min. 1 mm Maks. 5 mm	
Application Temperature	+5°C +30°C	
Pot Life	30 minutes	
Fully Cured at (+20°C)	28 days	

* Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations.



MasterEmaco® N 700

Description Of Product

MasterEmaco® N 700, is cement based one component, polymer modified repair mortar for finishing the concrete surfaces.

Complies with EN 1504-3/R2

Fields Of Application

- Repair and finishing the concrete surfaces,
- Plastering the slabs and ceilings and repair of plasters,
- Repair of the defects on the concrete surfaces before coating (tile etc.) applications,

Features And Benefits

- Mixed with only water and can be applied easily.
- Provides smooth surfaces on concrete.

- Perfect bonding to the concrete substrates.
- Can be applied in wide areas without cracking.
- Thixotropic and can be used in overhead applications.
- Resistant to water and weather conditions.
- Resistant to freeze-thaw cycle.

Packaging

20 kg bag

Coverage

1.51 kg/m² for obtaining 1mm thick layer.

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Mineral Fillers and Polymer Modified Cement
Color	Grey
Compressive Strength (20°C) (28 days) (TS EN 196)	>15 N/mm ²
Flexural Strength (20°C) (28 days) (TS EN 196)	>3 N/mm ² (28 days)
Bonding Strength (to concrete) (28 days)	>0,8 N/mm ²
Application Thickness	Min. 1 mm Maks. 5 mm
Application Temperature	+5°C + 60°C
Pot Life (20°C)	30 minutes
Fully Cured at (20°C)	28 days

* Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations.



MasterEmaco® N 735 BP

Description Of Product

MasterEmaco® N 735 BP, is epoxy modified cement based, surface finishing and repair mortar with three components.

Fields Of Application

- Protection of concrete elements in marine structures over sea,
- Providing sound and waterproof layer on concrete surfaces under epoxy insulation systems in purification plants,
- Providing sound and waterproof layer on concrete surfaces under epoxy and PU coatings in industrial plants,
- As a fine repair mortar on stone and cement based substrates with a thickness of 0.5-3.0 mm,
- Repair and insulation mortar on concrete substrates under aggressive chemical effects,
- Protecting the concrete elements against weather conditions in marine structures based over the sea.

Features And Benefits

- Excellent adhesion to damp surfaces (there should not be any bleed water on the surface).
- Can be covered with epoxy based coverings within few days.
- Doesn't need to primer.
- Waterproof.
- High resistance to frost and thawing.
- Solvent free.

Packaging

20,60 kg set
Component A: 1.3 kg pail
Component B: 2.3 kg pail
Component C: 17.0 kg bag

Coverage

2.0 kg/m² for obtaining 1mm thick layer.

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Contains Mineral Fillers, Polymers and Epoxy Modified Cement	
Color	Grey	
Mixed Density	2,00 kg/liter	
Compressive Strength (20°C) (28 days) TS EN 196	>25 N/mm ²	
Bonding Strength (to concrete) (28 days)	>1,5 N/mm ²	
Application Thickness	Min. 0,5 mm Max. 3,0 mm	
Pot Life 20°C	30 minutes	
Time to Cover-up	18-24 hours	
Fully Cured at 20°C	28 days	

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations



MasterEmaco® N 900

(Formerly known as Emaco® 90)

Description Of Product

MasterEmaco® N 900, is cement based one part, polymer and fibre modified repair mortar for finishing the concrete surfaces.

Complies with EN 1504-3/R2

Fields Of Application

- Repair and finishing the concrete surfaces,
- Providing sound and waterproof layer on concrete surfaces under epoxy and PU coatings in industrial plants.
- Providing sound layer on concrete surfaces under waterproofing systems.
- Repair of the defects on the concrete surfaces before coating (tile etc.) applications,
- Providing smooth and waterproof layer under paintings,
- Providing smooth layers over structural repair mortars.

Features And Benefits

- Mixed with only water and can be applied easily
- Perfect bonding to the concrete substrates
- Can be applied in wide areas without cracking
- Thixotropic and can be used in over-head applications
- Waterproof
- Resistant to freeze-thaw cycle
- Shrinkage compensated

Coverage

1.72 kg/m² for obtaining 1 mm thick layer.

Packaging

25 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Mineral Fillers and Polymer Modified Cement	
Color	Grey	
Compressive Strength TS EN 196	1 d	>20 N/mm ²
	7 d	>35 N/mm ²
	28 d	>40 N/mm ²
Flexural Strength TS EN 196 (28 days)	>7,0 N/mm ²	MK
Bonding Strength to concrete (28 days)	>1,0 N/mm ²	
Application Thickness	Min. 1 mm Maks. 5 mm	
Application Temperature	+5°C +30°C	
Pot Life	45 minutes	
Fully Cured (20°C)	28 days	

* Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations.



Wabo®Crete II TR

Description Of Product

Wabo®Crete II TR, is polyurethane – cement based, %100 solid material, applicable in concrete – asphalt combination, providing primerless adhesion to different surfaces, fast curing, ensuring long – term performance by absorbing the dynamic loads caused by traffic, an expansion joint header with special aggregate.

Fields Of Application

- Can be used as an expansion joint head for different expansion joint systems
- Can be used in repairing expansion joint heads.
- Can be used as a filler between different surfaces (concrete – concrete, concrete – asphalt, concrete – steel, asphalt – steel.
- Can be used in local asphalt repair.
- Can be used for fixing of the grid

Features And Benefits

- Waterproof
- Provides that loads are evenly distributed throughout the system by absorbing dynamic traffic loads
- Resistant to UV, ozone, de – icing chemicals and a sives

- Fast curing
- No heater is required to increase the material flow or curing.
- Prevents structural damage by absorbing heavy and repetitive impact loads
- Can be applied on different surfaces (metal, aluminum, concrete, asphalt) without primer
- Can not be applied on damp or wet surface. **Master-Seal® P 770** should be used for damp or wet surface

Coverage

2.0 kg/m² for obtaining 1 mm thick layer

Packaging

25 kg set
Part A: 1,40 kg pail
Part B: 2,75 kg pail
Part C :20,85 kg bag

Shelf Life

6 months under proper storage conditions after production date

Technical Data

Property	Standard	Unit	Data
Product Chemistry	-	-	Polyurethane - Cement
Density	TS EN 1015 - 6	g/cm ³	2
Compressive Strength 4 hours	TS EN 12190	N/mm ²	>8
Compressive Strength 8 hours	TS EN 12190	N/mm ²	>12
Compressive Strength 16 hours	TS EN 12190	N/mm ²	>15
Compressive Strength 1 day	TS EN 12190	N/mm ²	>20
Compressive Strength 2 days	TS EN 12190	N/mm ²	>25
Bonding Strength (2 days)	TS EN 1542	N/mm ²	-
Steel	TS EN 1542	N/mm ²	>1,5
Concrete	TS EN 1542	N/mm ²	>1,5
Impact Resistance	EN ISO 6272 - 1	Nm	>30
Elongation at Break	DIN 53504	%	7
Pot Life	-	minutes	15
Chloride Ion Content	TS EN 1015 - 7 (<%0,05)	%	0
Application Thickness	-	mm	Min: 20 mm, Max: 100 mm
Application Temperature	-	-	Min +4°C
Fully Cured at 23°C	-	days	2



Protection Systems



MasterProtect® 180

(Formerly known as Masterseal® 180)

Description Of Product

MasterProtect® 180, is an epoxy based two parts coating material developed especially to protect concrete and steel.

Complies with EN 1504-2

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Metal or concrete tanks
- Walls; as gas and vapor barrier coating resistant to chemical materials
- Oil and fuel tanks
- Power stations, sugar factories, hangars, and liquid storage areasIn drinking water depots
- Petroleum refineries and paper factories*
- Beer, wine and raisin industry*
- Soft drink and fruit juice industry*
- Milk, cheese, and yogurt industry*
- Tomato paste and canned food industry*
- Meat and fish industry*
- Medicine, paint, paper, battery and fertilizer industry*
- Printing houses, kitchens and laundries of hotels*
- Laboratories of hospitals, mess halls, wet volumes, and hygienic environments

Features And Benefits

- Glossy surface
- Forms a surface structure that prevents formation of microbes
- Easy to clean and create hygienic environments.
- High mechanic strength

- Has elasticity to absorb movements on metal surfaces
- Has higher chemical strength compared to standard epoxy coatings
- Easy to apply by brush, roll or spraying method
- Water impermeable
- Does not contain solvents
- Can be safely used in drinking water tanks (has a test report)

*Certified by Middle East Technical University and consistent with BS 6920 Standard Analysis Report

Coverage

MasterProtect® 180 is suggested to be applied in two layers. The coverage is approximately 0.20-0.40 kg/m² for each layer. Dry film thickness of around 125 to 250 microns is enough for **MasterProtect® 180**.

Packaging

5 kg set
Part A: 4.36 kg tin
Part B: 0.64 kg tin

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the cover and must be used in one week.

Technical Data

Product Chemistry MasterProtect® 180 Part A MasterProtect® 180 Part B	Epoxy Resin Epoxy Hardener	
Color	RAL colors	LX
Consistency	Brush	
Density	1,05 kg/liter	
Pot Life	45 minutes	
First Curing (+23°C)	12 hours	
Final Curing (+23°C)	7 days	
Dry Film Thickness	125-250 Microns (in each layer)	
Adhesion Strength (EN 1542) To concrete (7 days) To steel (7 days)	>2,50 N/mm ² >2,50 N/mm ²	

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations shortens the curing and working time, lower temperatures extends the durations.



MasterSeal® 7000 CR

The Solution for Extreme Wastewater Challenges

The concrete infrastructure of wastewater treatment systems is subject to complex physical and chemical attacks. **MasterSeal® 7000 CR** is specially designed to address these challenges.

Unique Combination of Application and Performance Properties

MasterSeal® 7000 CR's high resistance to abrasion and biogenic sulfuric acid corrosion are ideal to withstand the severe conditions that occur in pretreatment and aeration tanks, digesters, or sewers. Its dynamic and static crack-bridging abilities protect concrete from cracks thus prolonging the structure's life cycle.

Fields of Application

- Urban and industrial wastewater treatment both in inflow and outflow areas
- Biogas plants
- Secondary containment in industry
- Sewage effluent pipelines

Product Properties

- Fast and easy application
- Excellent curing properties
- Specific chemical resistance
- Crack-bridging
- Maximum moisture tolerance

Fast and Easy Application – Even on Humid Substrates

The easy application of **MasterSeal® 7000 CR** by spray or roller, as well as its compatibility with damp substrates, suit the conditions of wastewater facilities particularly well. Downtime – which is always

critical when stopping a wastewater process – is also reduced because of its fast-curing properties that allow contact with water only 24 hours after application at 20°C.

Spray Applied

Fast and easy application by spraying at temperatures from 5°C to 40°C

Hand Applied

Fast and easy application by rolling at temperatures from 5°C to 40°C

Challenges in Wastewater Treatment

1. Strong waterflow and water containing solid particles > Abrasion
2. Concrete shrinkage and steel reinforcement corrosion > Cracks, leakage and structural damage
3. Presence of chemicals and conditions for Biogenic Sulfuric Acid > Chemical attack

MasterSeal 7000 CR System Components

Primer: **MasterSeal® 770** is Xolutec technology based on high surface penetration and bond for **MasterSeal®** systems to be applied on It is a two-component primer that acts as a reinforcer.

Membrane: **MasterSeal® 790** is Xolutec technology based on high chemical and mechanical resistance two-component, with crack bridging feature is the membrane **MasterSeal® 7000 CR**



The 2 different colors of MasterSeal 7000 CR, red and Grey low It provides a security application environment even with visibility.

Primer	Membrane
MasterSeal® P770 is a two component primer	MasterSeal® M790 is a two-component crack-bridging membrane
approx thickness: 0,25 mm	approx thickness: 0,7 - 0,8 mm (2 th layers)
approx consumption: 0,3 kg/m ²	approx consumption: 0,8 - 1 kg/m ² (2 th layers)



MasterProtect® 330 EL

(Formerly known as Thorolastic® S Pure White)

Description Of Product

MasterProtect® 330 EL, is a 100% acrylic polymer based single part elastomeric exterior coating material that protects reinforced concrete parts against frost effect, carbonating, and degradation of various salts.

Fields Of Application

- In outer areas, in vertical applications
- In exteriors of buildings, villas, factories, and hotels
- As decorative protecting coating on concrete, plaster, brick, and stone surfaces

Features And Benefits

- Protects the structure against carbonating, and degradation of various salts
- Has crack bridging property up to 0.30 mm.
- Forms a flexible, UV resistant, and decorative coating
- Reduces reinforcement corrosion with its low CO₂ diffusion
- **MasterProtect® 330 EL** coating with 0.40 mm film thickness has equivalent carbon dioxide (CO₂) diffusion resistance of 20 cm thick concrete.
- **MasterProtect® 330 EL** elongates 300% of the first film thickness
- Ability to bridge cracks even in freezing temperature
- Gains 98% perfect elasticity in 24 hours
- Resistant to freezing-thawing cycle
- High durability.
- Vapor permeable. Enables rapid drying of the surface it is applied on

- Ready to use and easy to apply
- Does not contain solvents
- **MasterProtect® 330 EL** forms smooth and even surfaces

Coverage

Min. required thickness to form a protective coating against carbonating: **MasterProtect® 330 EL**: 200-300 microns. Coverage is directly proportional to the smoothness of surface. **MasterProtect® 330 EL**: 0.56 kg/m² in 2 layers.

Packaging

20 kg plastic bucket

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the cover, and must be used in one week.

Technical Data

Structure of the Material	Improved Acrylic Polymer	LX
Color	White	
Solid Substance Content	65 %	
Application Ground Temperature	+5°C +25°C	
Water Vapor Permeability:		
mH ₂ O (DIN53 122)	480	
SdH ₂ O (200µm DFT)	Equivalent of 0.10 m air layer	
CO ₂ Permeability	533,000	
SdCO ₂ (200µm DFT)	Equivalent of 0.107 m air layer	
Density	1,40 kg/liter	
Service Temperature	-20°C +120°C	

Obtained in +23°C, %50 relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MasterProtect® H 303

(Formerly known as Masterseal® 303)

Description Of Product

MasterProtect® H 303, is a water-based alkyl alkoxy silane having a volatile organic content lower than 350 grams per litre. It penetrates into the substrate and chemically reacts within the pores of the cementitious substrates.

Fields Of Application

MasterProtect® H 303, is a clear penetrating water repellent to protect both vertical and horizontal concrete surfaces exposed to weathering effects and chloride ions. **MasterProtect® H 303** can be used on old and new (cured) structures;

- Bridge decks, piers columns and beams.
- Multi-Storey car parks, building facades and balconies.
- Chimeys, cooling towers.
- Concrete pavements and pedestrian ways.
- Airport runways and taxiways.
- Exposed concrete surfaces (e.g. building façades).
- Precast concrete elements.
- Marine structures and jetties.
- Water repellence treatment of; sand – lime brickwork, hard - bake brickwork, küfeki stone, mineral rendering, absorbent natural stones.

Features And Benefits

- Improves the aesthetics by reducing efflorescence, algae growth and dirt build-up.
- Surface appearance remains unchanged.
- Penetrates deep into the concrete
- Prevents water and chloride ion penetration into

the concrete and protects it from freezethaw effects.

- Virtually no product evaporates during spray application, therefore more active silane can reach its intended target minimizing wastage and maximizing coverage.
- Ready for use, no dilution on the site, which means constant quality.
- Single layer application.
- Can be applied to damp substrates.
- Application equipment and spillages easily cleaned with soapy water.
- Reduces volatile organic emissions into the atmosphere in comparison with today's commonly-used organic solvent-based water repellents.
- Provides a much safer working environment for the applicator by minimizing health hazards associated with organic solvents.
- Breathable, vapour permeable treatment

Coverage

0.15 - 0.3 liter/m² (depends on the substrate porosity)

Packaging

MasterProtect® H 303 is available in 5 liters plastic cans.

Shelf Life

12 months if stored in undamaged, unopened containers at above mentioned storage conditions.

Technical Data

Property	Standard	Data	Unit
Chemical Base	-	Water based alkyl alkoxy silane	-
Solid Content	-	20	%
Color	-	White (Clear when cured)	-
Density (23°C)	-	1,01	g/cm ³
Chloride Diffusion (vs. reference concrete)	-	7	%
Water Absorption Test (vs. reference concrete)	-	5,3-8,3	%
Flash Point	ASTM D 3278-82	>93	Celcius
Water Vapor Transmission Rate	Oklahoma DOT-OHD-L-35	102	%



MasterProtect® H 304

Description Of Product

MasterProtect® H 304, is a water-based alkylalkoxy silane, one component, low viscosity, clear water repellent to protect both vertical and horizontal concrete surfaces exposed to weathering effects and chloride ions.

Fields Of Application

MasterProtect® H 304, can be used on old and new (cured) structures;

On brick and roofing tile

- Exposed concrete surfaces (e.g. building facades)
- Precast concrete elements.
- Water repellence treatment of; sand - lime brickwork, hard - bake brickwork, küfeki stone, mineral rendering, absorbent natural stones on mineral plaster

Features And Benefits

- Improves the aesthetics by reducing efflorescence, algae growth and dirt build-up.
- Surface appearance remains unchanged.
- Penetrates deep into the concrete
- Prevents water and chloride ion penetration into the concrete and protects it from freeze-thaw effects.
- Virtually no product evaporates during spray application, therefore more active silane can reach its intended target minimizing wastage and

maximizing coverage.

- Ready for use, no dilution on the site, which means constant quality.
- Single layer application.
- Can be applied to damp substrates.
- Application equipment and spillages easily cleaned with soapy water.
- Reduces volatile organic emissions into the atmosphere in comparison with today's commonly-used organic solvent-based water repellents.
- Breathable, vapour permeable treatment

Coverage

0.15 - 0.3 liter/m² (depends on the substrate porosity)

Packaging

MasterProtect® H 304, is available in 5 liters plastic cans.

Shelf Life

12 months if stored in undamaged, unopened containers at above mentioned storage conditions

Technical Data

Properties	Standart	Data	Unit
Product chemistry	-	Water based alkyl alkoxy silane	-
Colour	-	White (clear when cured)	-
Density	-	0,97 ± 0,03	kg/lt
Application Temperature	-	+5°C +35°C	Celcius
Viscosity	EN ISO 3219	12,5	mPas
Solid Content	-	7	%
Flash Point	-	> 93	Celcius
Water Absorption and Resistance to Alkali – Before Immersion in Alkali Solution	EN 13580	< 7,5	%
Water Absorption and Resistance to Alkali – After Immersion in Alkali Solution	EN 13580	< 10	%
Penetration Depth	EN 14630	Class 1, < 10	mm



MasterProtect® H 1100

(Formerly known as Protectosil® BHN)

Description Of Product

MasterProtect® H 1100, is a monomeric alkyldimethylsilane based, single part, non-solvent, low viscosity, transparent, ready to use water repellent material.

Fields Of Application

- On concrete surfaces (beams and tiles of bridge columns, sea structures, exterior surfaces of reinforced concrete buildings, etc.)
- On brick and roof tile surfaces (exterior surfaces of masonry structures)
- On tile surfaces
- On exteriors as water repellent against dusting and efflorescence

Features And Benefits

- Single part, easy to apply
- Since it is transparent, it does not change the look and color of applied surfaces
- Breathing, water vapor permeable
- Prevents penetration of water to surfaces and acts as a shield against harmful effects of water soluble salts like chlorides

- Superior penetration
- High alkali resistance
- Stops alkali-silicate reactions in the concrete.
- Covers micro cracks up to 0.3 mm width
- Conforms with ZTV SIB 90 standards of German Ministry of Communication
- High freezing-thawing resistance
- Does not contain solvents

Coverage

150-300 g/m² depending on surface absorption.

Packaging

200 liter barrel

Shelf Life

18 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the cover, and must be used in shelf life.

Technical Data

Product Chemistry	Monomeric Alkylalkoxsilan
Colour	Transparent
Density (DIN 51757)	0.88 kg/litre
Viscosity	0.95 mPa.s
Refractive Index	1.4
Flash Point (DIN 51755)	+63°C
Boiling point (DIN 51751)	+186°C
Application Temperature	+5°C +45°C



MasterProtect® 8000 Cl

(Formerly known as Protectosil® CIT)

Description Of Product

MasterProtect® 8000 Cl, is a single part, ready to use, low viscosity, clear liquid which combines the proven effectiveness of penetrative silane treatments for the control of moisture and chloride ion ingress with advanced organofunctional corrosion inhibition.

Fields Of Application

- Concrete pavements in airport runways and tracks
- Marine structures
- Damps
- Bridges
- Car parks
- Tunnels
- RC Structures under chloride attacks

Features And Benefits

- Ready to use
- Does not discolour or change appearance of concrete
- Breathable vapour permeable treatment
- Dramatically reduces chloride induced corrosion of concrete steel reinforcement (90%-99%)
- Reduces corrosion in carbonated reinforced concrete
- Works at the molecular level to effectively inhibit

macrocell (rebar to rebar) and microcell (on the same rebar) corrosion

- Proven long term effectiveness in laboratory and field trials > 7 years proven performance in aggressive environment subject to de-icing salts and vehicular traffic
- Equally effective in high humidity conditions
- Chemically bonds to steel, cement paste and other siliceous material-will not wash or leach out during wetting/drying cycles, ensuring extended active life

Coverage

600 ml/m² applied in two or three coats Horizontal surfaces: 2 coats 300 ml/m² Vertical or overhead surfaces: 3 coats 200 ml/m²

Packaging

205 lt drum

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Product Chemistry	Advanced Organo-Functional Silane
Color	Clear
Density	0,88 kg/litre
Viscosity	0,95 mPa.s
Flash Point	>60°C
Ph	11
Recoat after at 20°C	15-30 minutes



MasterProtect® 8500 CI

Description Of Product

MasterProtect® 8500 CI, is a single component, ready to use, low viscosity, clear liquid that, combines the power of a 100% reactive penetrating corrosion inhibitor and a latent-phase corrosion inhibitor to mitigate electrochemical corrosion of reinforcing steel in new or aged concrete. Only **MasterProtect® 8500 CI** couples the primary reactive penetrant with a second, latent-phase corrosion inhibitor. This latent-phase inhibitor activates when the concrete cracks, migrating to the reinforcing steel to provide an extra level of protection when it is most needed.

Fields Of Application

MasterProtect® 8500 CI, is sprayed directly onto the surface of steel reinforced concrete structures and buildings. It is equally suited to cast in situ, precast, post tensioned, pre-stressed, GFRC, or other steel reinforced concrete.

MasterProtect® 8500 CI can be used as part of an overall repair strategy using **MasterEmaco®** concrete repair systems to mitigate corrosion rates within the balance of the structure and significantly reduce the possibility of “ring anode” induced spalling later.

Equally **MasterProtect® 8500 CI** can be used as a cost-effective preventative measure before the onset of corrosion induced problems occur. Contact your local Master Builders Solutions representative for further information.

It is particularly suited for the protection of:

- Steel reinforced concrete, including cast-in place, precast, pre-stressed and post tensioned
- Building facades and balconies, parking structures, pedestrian walks, bridge decks and supporting elements (beams, columns, etc.), concrete docks and piers
- Marine and other high humidity environments not subject to hydrostatic pressure
- Steel-reinforced concrete exposed to de-icing salts

Features And Benefits

- Easy to apply and quick-drying for faster installation time.
- Provides water repellent surface to prevent penetration of moisture and chlorides.
- Reduces corrosion due to the ring anode or “halo” effect.
- Suitable for use in new construction and repair applications.
- Effective in chloride-contaminated and carbonated concrete to significantly slow the rate of corrosion.
- Latent-phase corrosion inhibitor activates if concrete cracks, or if moisture penetrates the concrete, providing extended protection when it is most needed.
- Vapor-permeable, to prevent moisture entrapment. Effective in high humidity environments to mitigate corrosion of reinforcing steel.
- Easy to apply surface treatment that penetrates the concrete to bond with steel and the concrete matrix to inhibit macrocell (mat-to-mat) and microcell (along rebar) corrosion of steel reinforced concrete
- Normally does not require removal prior to subsequent coating applications, thereby reducing downstream labor costs compared with many other corrosion inhibitors

Coverage

MasterProtect® 8500 CI, 0.6 liter/m² – 0.5 kg/m²

Packaging

MasterProtect® 8500 CI, is available in 20 liter plastic drums.

Shelf Life

18 months if stored in undamaged, unopened containers at above mentioned storage conditions

Technical Data

Property	Standard	Data	Unit
Chemical Base	-	Silane	-
Colour	-	Clear to light amber	-
Density (23 °C – 73 °F)	DIN 51757	0.88 – 8.81	g/cm ³ - lbs
Viscosity (24.6 °C – 76 °F)	Anton Paar MCR 301	0.82	cP
Flash Point	EN ISO 2719	> 60 – 140	C – °F
Water Absorption and Alkali Resistance (Concrete type C (0.45) Serie A) compared with the untreated specimen after immersion in alkali solution	EN 13580	< 7.5 < 10	%
Drying Rate (for hydrophobic impregnation)	EN 13579	>30	%
Application Temperature (ambient and substrate)	-	+5 to +38	°C
Resistance Against Freeze – Thaw Salts Stress of Impregnated Hydrophobic Concrete (C (0.70) type	EN 13581	>20	cycles

Typical values obtained under controlled laboratory conditions.



Composite Strengthening Systems



MasterBrace® FIB

(Formerly known as Mbrace® Fibre)

Description Of Product

MasterBrace® FIB, is carbon, glass or aramide based, high strength and high modulus unidirectional sheets in MasterBrace® FRP System.

Fields Of Application

MasterBrace® FIB 230/50 CFS ve MasterBrace® FIB 300/50 CFS (High strength carbon fibre sheets) are used in;

- Increasing the flexural and shear strength of the concrete beams
- Increasing the flexural strength of the concrete slabs
- Increasing the compressive strength of concrete columns
- Enhancement of the ductility of concrete columns
- Increasing the flexural strength of the wooden beams
- Increasing the mechanical strengths of the masonry elements

MasterBrace® FIB 300/50 CFH (High modulus carbon fibre sheet) is used in;

- Strengthening of high strength, cast-in-situ, precast and pre-stressed RC elements
- Shear strengthening of high strength RC elements

Features And Benefits

- Light and easy to carry
- East to cut and re-shaped
- Easy to design (Unidirectional fibers and similar elasticity modulus with steel)
- Good fatigue properties

Packaging

MasterBrace® FIB 230/50 CFS
50 m² (0,50 x 100 m) rolls

MasterBrace® FIB 300/50 CFS
50 m² (0,50 x 100 m) rolls

MasterBrace® FIB 300/50 CFH
25 m² (0,50 x 50 m) rolls

Technical Data	MasterBrace® FIB 230/50 CFS	MasterBrace® FIB 300/50 CFS	MasterBrace® FIB 300/50 CFH	MasterBrace® FIB 600/100 CFS
	230 g/m ²	300 g/m ²	300 g/m ²	600 g/m ²
Material Type	Carbon	Carbon	Carbon	Carbon
Elasticity Moduls (N/mm ²)	230,000	230,000	340,000	230,000
Tensile Strength (N/mm ²)	4900	4900	4600	4900
Design Cross Section Thickness (mm)	0,111	0,166	0,167	0,337
Fiber Weight (g/m ²)	230	300	300	600
Elongation at Break (%)	2,1	2,1	1,4	2,1
Width (mm)	500	500	500	500



MasterBrace® LAM

(Formerly known as Mbrace® Laminate)

Description Of Product

MasterBrace® LAM is high strength or high modulus unidirectional pultruded carbon fiber laminates in **MasterBrace® FRP** System.

Fields Of Application

- Increasing the flexural strength of the concrete beams
- Increasing the flexural strength of the concrete slabs under heavy machine loads
- Increasing the rigidity of the beams and slabs against bending deformations
- Increasing the flexural strength of the concrete slabs damaged with ventilating channel openings, stairs and elevator holes etc.
- Increasing the flexural strength of the concrete beams and slabs under increased service loads

(change of usage etc.)

- Decreasing disturbing effect of the vibrations on the slabs caused by machines

Features And Benefits

- **MasterBrace® LAM** Light and easy to carry
- Easy to cut and re-shaped
- Easy to design (Unidirectional laminates and similar elasticity modulus with steel)
- Does not increase the gravity of the structure
- Does not require to empty the structure and strengthening works can be done with temporary stops
- Decreases the bending deformations in the slabs and beams

Packaging

100 m rolls

Technical Data	MasterBrace® LAM 50/1.2 CFS	MasterBrace® LAM 100/1.2 CFS	MasterBrace® LAM 100/1.4 CFH
Elasticity Modulus (N/mm ²)	165,000	165,000	210,000
Tensile Strength (N/mm ²)	3,000	3,000	2,800
Elongation at Break (%)	%1,5	%1,5	%1,4
Thickness (mm)	1,2	1,2	1,4
Width (mm)	50	100	100
Cross Section Area (mm ²)	60	120	140



MasterBrace® NET

(Formerly known as MBrace® Connect)

Description Of Product

MasterBrace® NET, is a two-directional alkali-resistant glass or carbon fibre mesh in **MasterBrace® FRP** system, for strengthening reinforced concrete and masonry structures.

It can be applied in combination with structural resins of the **MasterBrace®** line, with structural cementitious/lime based mortar of the **MasterEmaco® S** line.

Fields Of Application

- Increasing the flexural and shear strength of reinforced concrete beams.
- Increasing the flexural strength of reinforced concrete slabs.
- Increasing the shear strength of reinforced concrete walls.
- Enhancement of the ductility and strength of masonry walls.
- Increasing the flexural strength of masonry arches.
- Increasing the flexural strength of masonry slabs.
- Increasing the flexural strength of masonry domes and vaults.

Features And Benefits

- Very light and easy to handle.
- It can be used with cementitious or lime based structural repair mortar on damp and wet substrates.
- Excellent resistance towards all aggressive chemicals in concrete such as alkali hydroxide, chlorides and sulphates.
- Resistant to high temperatures when used with cementitious/lime based structural repair mortar.
- Easy to cut and re-shaped.

Packaging

MasterBrace® NET 200/100 CFS
50 m² (1.00 m×50 m) roll

MasterBrace® NET 220/100 GF
50 m² (1.00 m×50 m) roll

Technical Data	MasterBrace® NET 200/100 CFS	MasterBrace® NET 220/100 GF
Fibre Weight	200 g/m ²	220 g/m ²
Modulus of Elasticity (ASTM D3039)	230 Gpa	65 Gpa
Elongation at Break (ASTM D3039)	%1,40	%2,50
Equivalent Thickness for each of the two Directions	0,048 mm	0,048 mm
Tensile Strength (ASTM D3039)	2500 Mpa	1300 Mpa
Electrical Resistivity	1,6 x 10 ⁻⁵ Ω . M Conductive	Non Conductive



MasterBrace® BAR

(Formerly known as Mbar®)

Description Of Product

is high strength and high modulus carbon fiber bars in MasterBrace® FRP System.

Fields Of Application

- Increasing the flexural strength of the concrete elements
- Increasing the flexural strength of the masonry walls
- Repair of the cracks as tie bars

Features And Benefits

- Light and easy to carry
- East to cut

- Easy to design (Unidirectional laminates and similar elasticity modulus with steel)
- Does not increase the gravity of the structure
- Does not requires to empty the structure and strengthening works can be done with temporary stops
- Excellent corrosion resistance
- Good fatigue properties

Packaging

Pre-cut
6, 12 m bars

Technical Data	MasterBrace® BAR 800 CFS	MasterBrace® BAR 1000 CFS	MasterBrace® BAR 1200 CFS
Elasticity Modulus (N/mm ²)	165,000	165,000	165,000
Tensile Strength (N/mm ²)	3,000	3,000	3,000
Elongation at Break (%)	1,5	1,5	1,5
Nominal Diameter (mm)	8	10	12
Nominal Area (mm ²)	50	78	113
Ultimate Tensile Load (kN)	125	195	282
Linear Weight (g/m)	80	126	183



MasterBrace® P 3500

(Formerly known as Mbrace® Primer)

Description Of Product

MasterBrace® P 3500 is epoxy based, solvent free, low viscosity primer developed for **MasterBrace® FRP** System.

Fields Of Application

- Priming the concrete surfaces under FRP (carbon, glass and aramide) sheets and laminates.

Features And Benefits

- Easy to apply
- Low viscosity.
- High strength
- Excellent bonding to concrete substrates
- Solvent free

Coverage

0.2 kg/m²

Packaging

4 kg set
Bileşen A: 2,76 kg pail
Bileşen B: 1,24 kg pail

Shelf Life

18 months under proper storage conditions after production date.

Technical Data

Product Chemistry MasterBrace® P 3500 Part A MasterBrace® P 3500 Part B	Epoxy Resin Epoxy Hardener
Color	Clear
Mixed Density	1,08 ± 0,024 kg/liter
Solid Content	%100
Flexural Strength TS EN 196 (7 days)	>20 N/mm ²
Bonding Strength to Concrete (7 days)	>0tc N/mm ²
Application Temperature	+5°C +30°C
Pot Life	-1°C 8 hours 7°C 2 hours 21°C 45 minutes 32°C 25 minutes
Application Thickness	0,1-0,2 mm
Recoat After	12-24 hours
Coating with MasterBrace® FRP	-1°C 9 hours +7°C 5 hours +21°C 3 hours +32°C Maks. 48 hours
Fully Cured at (+20°C)	7 days

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations



MasterBrace® ADH 4000

(Formerly known as Mbrace® Laminate Adesivo)

Description Of Product

MasterBrace® ADH 4000, is epoxy based, solvent free, high strength adhesive developed for **MasterBrace®LAM** System.

Fields Of Application

- Bonding of carbon fibre laminate on concrete, steel and wooden surfaces.

Features And Benefits

- Pasty and easy to apply
- High strength
- Non-sag
- Solvent free

Coverage

3-4 kg for bonding 1m² laminate.

Packaging

6 kg set
Part A: 3 kg pail
Part B: 3 kg pail

Shelf Life

18 months under proper storage conditions after production date.

Technical Data

Product Chemistry MasterBrace® ADH 4000 Part A MasterBrace® ADH 4000 Part B	Epoxy Resin Epoxy Hardener	
Color	Grey	
Mixed Density	1,58 kg/liter	
Compressive Strength TS EN 196 (7 days)	>40 N/mm ²	
Flexural Strength TS EN 196 (7 days)	>20 N/mm ²	MK
Bonding Strength (7 days) To concrete To steel	>3,0 N/mm ² >3,0 N/mm ²	
Application Temperature	+5°C +35°C	
Pot Life	30 minutes	
Fully Cured at 20°C	7 days	

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations



MasterBrace® SAT 4500

(Formerly known as Mbrace® Fibre Saturant)

Description Of Product

MasterBrace® SAT 4500, is epoxy based, solvent free, high strength adhesive developed for **MasterBrace® FIBSystem**.

Fields Of Application

Bonding of FRP (carbon, glass and aramide) sheets on concrete, steel and wooden surfaces.

Features And Benefits

- Easy to apply
- Low viscosity
- High strength
- Solvent free

Coverage

1.8 kg/m² in first layer, and 0.8 kg/m² in the following coats.

Packaging

5 kg set
Part A: 3.73 kg pail
Part B: 1.27 kg pail

Shelf Life

18 months under proper storage conditions after production date.

Technical Data

Product Chemistry MasterBrace® SAT 4500 Part A MasterBrace® SAT 4500 Part B	Epoxy Resin Epoxy Hardener	
Color	Blue	
Mixed Density	1,02 kg/litre	
Viscosity	1500-2500 mPa.s	LX
Compressive Strength TS EN 196 (7 days)	>60 N/mm ²	
Flexural Strength TS EN 196 (7days)	>50 N/mm ²	
Bonding Strength to concrete (7 days)	>3,0 N/mm ²	
Application Temperature	+5°C +30°C	
Pot Life	30 minutes	
Fully Cured at 20°C	7 days	

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations



Chemical Anchor And Adhesive For Structural Applications



MasterBrace® ADH 1403

Description Of Product

MasterBrace ADH 1403 epoxy based, two components, flexible adhesive for various construction materials.

Fields Of Application

- Interior and exterior areas for vertical and horizontal applications
- Fixing of steel, concrete, brick, tile, ceramic, stone, some plastic and similar construction materials on steel and mineral based substrates
- Bonding of various types of construction materials such as steel, concrete, brick to each other

Features And Benefits

- Pasty consistency, easy to apply and non – sagproperties in over – head applications
- Perfect adhesion to steel and concrete surfaces
- Can be used without primer
- Resists to freeze – thaw cycle

- Resists to thermal stresses
- Resists to some chemicals
- Long pot life
- Flexible
- Does not contain solvent

Coverage

1,70 kg/m² for obtaining 1 mm thick layer

Packaging

5,20 kg (A+B) tin container set

Shelf Life

12 months in original unopened packaging if stored in appropriate conditions. Opened packagings should be conserved in one week.

Technical Data

Product Chemistry MasterBrace® ADH 1403 Part A MasterBrace® ADH 1403 Part B	Epoxy Resin Epoxy Hardener
Mixed Density	1,62 ± 0,05 kg/liter
Compressive Strength (TS EN 12190) 1 day 7 days	20 N/mm ² 40 N/mm ²
Flexural Strength (TS EN 196) 1 day 7 days	6 N/mm ² 12 N/mm ²
Bonding Strength (TS EN 1542) To Concrete To Steel	>3,0 N/mm ² >3,5 N/mm ²
Application Thickness Min. Maks.	0,5 mm 10 mm
Pot Life	40 minutes
Application Temperatures	+5°C - +30°C
Re – coatable after (+20°C)	8 -12 hours
Walking Over Duration (+20°C)	24 hours
Service Temperature	-15°C +80°C
Fully Cured at 20°C	7 days



MasterBrace® ADH 1406

(Formerly known as Concreative® 1406)

Description Of Product

MasterBrace® ADH 1406, is epoxy based repair, anchorage and adhesive mortar with two parts.

Complies with EN 1504-4 and 1504-6

Fields Of Application

- Chemical anchoring in concrete and brick walls
- Repair and insulating of wide cracks
- Bonding of various types of construction materials such as steel, concrete, brick to each other
- Cap seal and entry ports installation in epoxy polyurethane injection works
- Fixing the guard bars and seismic isolators to the bridges and viaducts
- Anchoring the rods and deformed bars to the concrete, stone or brick

Features And Benefits

- Pasty consistency, easy to apply and non-sag properties in over-head applications

- Perfect adhesion to the concrete and steel
- Resists to chemicals
- Water and gas impermeable
- Perfect adhesion to the damp surfaces on concrete
- Solvent free

Coverage

1.7 kg/m² for obtaining 1 mm thick layer.

Packaging

5 kg set
Part A: 3.75 kg pail
Part B: 1.25 kg pail

Shelf Life

18 months under proper storage conditions after production date.

Technical Data

Product Chemistry		
MasterBrace® ADH 1406 Bileşen A	Epoxy Resin	
MasterBrace® ADH 1406 Bileşen B	Epoxy Hardener	
Color	Grey	
Mixed Density	1,70 ± 0,05 kg/liter	
Compressive Strength (TS EN 196)		
1 day	30 N/mm ²	
7 days	60 N/mm ²	
Flexural Strength (7 d) (TS EN 196)		
1 day	17 N/mm ²	
7 days	25 N/mm ²	
Bonding Strength (7 days)		
To concrete	>3,0 N/mm ²	
To steel	>3,5 N/mm ²	
Application Thickness	Min. 2 mm Maks. 30 mm	FM 
Application Temperature	+5°C +30°C	
Pot Life	40 minutes	
Recoat After	18-24 hours	
Service Temperature	-15°C +90°C	
Fully Cured at 20°C	7 days	

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations



MasterBrace® ADH 1415

Description Of Product

MasterFlow® ADH 1415, is epoxy based with two components, pasty consistency and high build adhesive designed for underwater repairs and bonding of building materials.

- Pasty consistency, easy to apply and non-sag properties in over-head applications.
- High mechanical strengths. Solvent free

Fields Of Application

- Repair of piles, pile heads and beams in contact to sea water in jetties.
- Repair of underwater reinforced concrete elements.
- Repair of steel piles in jetties.
- Sealing the corners of the structural elements (eg. Intersection line of the piles and head beams)
- Bonding of the ceramic tiles, granites, marbles and similar building materials under water.

Coverage

1, 75 kg/lt for obtaining 1mm thick layer.

Packaging

5 kg set
Component A: 3,75 kg. pail
Component B : 1,63 kg. pail

Shelf Life

18 months under proper storage conditions after production date.

Features And Benefits

- Perfect adhesion to the concrete and steel submerge conditions.
- Resists to sea water.

Technical Data

Product Chemistry MasterBrace ADH® 1415 Comp. A MasterBrace ADH® 1415 Comp. B	Epoxy Resin Epoxy Hardener
Colour	Green
Mixed Density	1,75 kg/lt
Compressive Strength (at 20°C) TS EN 196 (1 day) (7 days)	> 40 N/mm ² > 50 N/mm ²
Bonding Strength (7 days) To concrete To steel	> 2 N/mm ² > 2 N/mm ²
Application Thickness	Min.2 mm Max 15 mm
Application Temperature	+5°C - +35°C
Pot Life (at +23°C)	25 minutes
Fully Cured (at +23°C)	7 days

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations



MasterBrace® ADH 1420

(Formerly known as Concesive® 1420)

Description Of Product

MasterBrace® ADH 1420, is epoxy based, solvent free, moisture tolerant, flowable adhesive with two parts for bonding freshly mixed and hardened concrete.

Complies with EN 1504-4 and EN 1504-6

Fields Of Application

- Bonding freshly mixed concrete and hardened concrete
- Corrosion protection of reinforcement in structural repairs
- Priming the concrete substrates under repair mortars
- Bonding various building materials to each other, concrete, stone, metals etc.
- Chemical anchoring

Features And Benefits

- Easy to apply with brush, roller or directly pouring
- Perfect adhesion between the freshly mixed and hardened concrete
- Provides a corrosion protection barrier on the

- reinforcement
- Provides perfect adhesion even on damp surfaces

Coverage

1.6 kg/m² for obtaining 1 mm thick layer.

Packaging

5 kg set
Part A: 3.33 kg pail
Part B: 1.67 kg pail

Shelf Life

18 months under proper storage conditions after production date.

Technical Data

Product Chemistry MasterBrace® ADH 1420 Part A MasterBrace® ADH 1420 Part B	Epoxy Resin Epoxy Hardener	
Color	Fume	
Solid Content	100%	
Mixed Density	1,55 ± 0,05 kg/liter	
Viscosity	8500 mPa.s	
Compressive Strength (TS EN 196)	1 day >50 N/mm ² 7 days >80 N/mm ²	
Flexural Strength (TS EN 196)	1 day >20 N/mm ² 7 days >30 N/mm ²	
Tensile Strength (BS 6319-7)	7 days >20 N/mm ² 28 days >30 N/mm ²	
Shear Strength (TS EN 12003)	1 day >14N/mm ²	
Elasticity Modulus TS EN 13412 (Under Compression) (28 days)	>5000 N/mm ²	
Bonding Strength (7 days) To concrete To steel	>3,0 N/mm ² >3,5 N/mm ²	LX
Application Thickness	Min. 0,5 mm Maks. 30 mm	
Application Temperature	+10°C +30°C	
Service Temperature	-30°C +80°C	
Pot Life	45 minutes	
Covering with Feshly Mixed Concrete	Min. 5 minutes Max. 40 minutes	
Fully Cured at 20°C	7 days	

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations



MasterInject® 1302

(Formerly known as Concesive® 1302)

Description Of Product

MasterInject® 1302, is epoxy based low viscous injection resin with two parts and designed for injection to cracks with a width up to 1mm.

- Low viscosity and can be injected easily under low pressure
- Solvent free

Complies with EN 1504-5

Coverage

1.06 kg/liters

Fields Of Application

- Repair of cracks with a width of 0.2-1.0 mm
- Repair of reinforced concrete, masonry and similar mineral construction materials with injection
- Filling the narrow voids between the steel jackets and concrete

Packaging

5.08 kg set
Part A: 4.40 kg pail
Part B: 0.68 kg pail

Features And Benefits

- Penetrates into the narrow cracks easily
- High mechanical strengths
- Perfect bonding to the concrete

Shelf Life

18 months under proper storage conditions after production date.

Technical Data

Product Chemistry MasterInject® 1302 Part A MasterInject® 1302 Part B	Epoxy Resin Epoxy Hardener	
Color	Clear	
Solid Content (by volume)	100 %	
Mixed Density	1,06 ± 0,05 kg/liter	
Viscosity	200-350 mPa.s	
Compressive Strength (20°C) (7 days) TS EN 196	>65 N/mm ²	LK
Flexural Strength (20°C) (7 days) TS EN 196	>25 N/mm ²	
Bonding Strength (to concrete) (7 days) (TS EN 1542)	>2 N/mm ²	
Applicatin Thickness	Min. 0,1 mm Maks. 1,0 mm	
Flash Point	>+62°C	
Application Temperature	+10°C +35°C	
Pot Life (+20°C)	25 minutes	
Fully Cured at 20°C	7 days	

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations



MasterFlow® 916 AN

Description Of Product

MasterFlow® 916 AN, is a two-component, thixotropic, polyester based chemical anchoring mortar. The product is specially designed for applications where light to medium loads are to be fixed in hollow blocks or solid material. Both parts of **MasterFlow® 916 AN**, packed in a single cartridge with separate compartments, are correctly mixed in the mixing nozzle while pressing the material out of the cartridge.

Approvals & Test

- ETAG 001 Part 5 Option 7 for threaded bars (M8-M24) in galvanized steel 5.8-8.8 & 10.9 and Stainless Steel A4-70; A4-80 & HCR (1.4529) in C20/25 to C50/60 uncracked concrete

Fields Of Application

- Gates, blinds, antennas
- Guard rails and barriers
- Air conditioning systems
- Connectors for carpentry
- Water heater systems
- Steel plates on concrete
- Street furniture

Features And Benefits

- Easy to use, easy to extrude
- Suitable for dry, wet & flooded holes without loss of performance

- Quick cure system - saves time and money
- High adhesive power
- High early and final mechanical strengths
- For use with a classical silicon gun (300 ml)
- Resists to chemicals.

Coverage

h _{ef}	M8	M10	M12	M16	M18	M20
	Drilling Ø 10 mm	Drilling Ø 12 mm	Drilling Ø 14 mm	Drilling Ø 18 mm	Drilling Ø 22 mm	Drilling Ø 26 mm
8d	106	65	43	23	13	8
10d	85	52	34	18	11	7
12d	71	43	29	15	9	5

Packaging

MasterFlow® 916 AN is available in cartridges of 300 ml peel pack for standard silicon gun

Shelf Life

12 months in original unopened cartridges. Store at +5°C to + 25°C.





MasterFlow® 918 AN

Description Of Product

MasterFlow® 918 AN, is a two component, high performance, thixotropic, epoxy acrylate based anchoring mortar.

- For medium and high load fixing
- Pasty consistency, easy to apply and nonsag properties in over-head applications.
- Resists to chemicals

Approvals & Test

- ETAG 001 Part 5 Option 7 for threaded bars (M8-M24) in galvanized steel 5.8-8.8 & 10.9 and Stainless Steel A4-70; A4-80 & HCR (1.4529) in C20/25 to C50/60 uncracked concrete

Fields Of Application

- Anchoring of rebars in preformed holes in concrete, stone-wall and brick.
- Fixing of injection apparatus
- Fixing of anchoring bolts
- Fixing of facades
- Fixing of balcony parapet, handrail etc.
- Fixing of gates, blinds, antennas and other domestic uses

Features And Benefits

- Easy to use, no mixing required
- Suitable for dry, wet & flooded holes without loss of performance
- Rapid curing

Coverage

h _{ef}	M8	M10	M12	M16	M18	M20
	Drilling Ø 10 mm	Drilling Ø 12 mm	Drilling Ø 14 mm	Drilling Ø 18 mm	Drilling Ø 22 mm	Drilling Ø 26 mm
8d	148	91	60	32	19	12
10d	118	72	48	26	15	9
12d	98	60	40	21	12	8

Packaging

MasterFlow® 918 AN is available in cartridges of 410 ml coaxial for special gun

Shelf Life

12 months in original unopened cartridges. Store at +5°C to + 25°C.





MasterFlow® 920 AN

(Formerly known as Masterflow® 920 SF)

Description Of Product

MasterFlow® 920 AN, is a two-component, high performance thixotropic, styrene free, and epoxy acrylate based chemical anchoring mortar. The product is specially designed for applications where medium and heavy loads are to be fixed in hollow blocks or solid material. Both components of **MasterFlow® 920 AN**, packed in a single cartridge with separate compartments, are correctly mixed in the mixing nozzle while pressing the material out of the cartridge.

Fields Of Application

- Anchoring of rebar in preformed holes in concrete
- Fixing of anchoring bolts
- Fixing of bolts, screws and beaming plates
- Installation of bonded rebar/shear reinforcement
- Low temperature applications down to -5°C
- Fixing gates, blinds, antennas and other domestic uses

Features And Benefits

- Easy to use, no mixing required
- High adhesive power
- Fast curing for quick installation
- For medium and high load fixing
- Can be used in diamond drilled holes

- High early and final mechanical strengths
- Applicable in slightly damp conditions
- Can be used at low or high temperatures
- For use with a standard silicon gun (280 ml)
- Very low shrinkage
- For interior and exterior use
- Suitable for technical applications where high performance is needed
- Performance guaranteed by ETA certification
- Styrene and solvent free formulation
- The performance characteristics of MasterFlow® 920 AN are covered by:
 - ETA-07/0091-Stainless steel
 - ETA-07/0092-Galvanised steel
 - ETA-11/0146-Rebar

Packaging

- 280 ml peel pack for standard silicon gun
- 380 ml coaxial for special gun
- 825 ml side by side for special gun

Shelf Life

18 months if stored at above mentioned storage conditions





MasterFlow® 932 AN

Description Of Product

MasterFlow® 932 AN, is a two component (1:1) pure epoxy resin based high performance anchoring grout for use in cracked and uncracked concrete under normal as well as seismic conditions (seismic category C1). Designed for most demanding structural applications and rebar connections,

MasterFlow® 932 AN offers high load-bearing capacity. The system can be installed in percussive and diamond drilled dry or holes wet

Approvals & Test

- ETA according ETAG 001 part 1 & 5 Option 1 for anchoring of threaded bars into cracked & uncracked concrete
- ETA according to TR023 for post-installed rebar connections
- Tested according to LEED 2009 EQ c4.1, SCAQMD rule 1168(2005)
- Fire resistance F240 for reinforcing bars
- A+ as per French VOC Regulation
- ICC - ES Evaluation Report

Fields Of Application

- Structural applications in cracked and uncracked concrete applications in seismic zones (C1)
- Facades

- Post installed rebar connections
- Crash barriers
- Structural steel

Features And Benefits

- Fixings close to free edges
- Fire tested
- Versatile
- High load capacities
- Extended get/open time
- Suitable for dry and wet holes

Packaging

MasterFlow® 932 AN is available in side-by-side cartridge of 400 ml (12 cartridges in a box)

Shelf Life

Cartridges should be stored in their original packaging the correct way up and in cool dry conditions (+10°C to +25°C) out of direct sunlight. When stored correctly, the shelf life will be for 24 months from the date of manufacture.





MasterFlow® 936 AN

Description Of Product

MasterFlow® 936 AN, is a two component (3:1) pure epoxy resin based high performance anchoring grout for use in cracked and uncracked concrete under normal as well as seismic conditions (seismic category C1 – C2). Designed for post-installed rebar connection applications, **MasterFlow® 936 AN** offers a very high load-bearing capacity. The system can be installed in percussive and diamond drilled dry or wet holes.

Approvals & Test

- ETA according to ETAG 001 part 1 & 5 option 1 for anchoring of threaded bars into cracked & uncracked concrete
- ETA according to TR023 for post-installed rebar connections
- Tested according to LEED 2009 EQ c4.1, SCAQMD rule 1168(2005)
- Fire resistance F240 for reinforcing bars
- A+ as per French VOC Regulation

Fields Of Application

- Structural applications in cracked and uncracked concrete applications in seismic zones (C2)
- Post installed rebar connections

- Facades
- Crash barriers
- Structural steel

Features And Benefits

- Fixings close to free edges
- Fire tested
- Versatile
- High load capacities
- Extended get/open time
- Suitable for dry and wet holes

Packaging

MasterFlow® 936 AN, is available in boxes of 12 side-by-side cartridges of 385ml & boxes of 12 side-by-side cartridges of 585ml.)

Shelf Life

Cartridges should be stored in their original packaging the correct way up and in cool dry conditions (+10°C to +25°C) out of direct sunlight. When stored correctly, the shelf life will be for 24 months from the date of manufacture





MasterFlow® 960 TIX

Description Of Product

MasterFlow® 960 TIX, is a one-part very fine grade cement anchoring agent, which gives a highly workable mix when mixed with water, ready for anchoring threaded rods or rebars and bars with improved adhesion subject to heavy loads, in particular for fixings on the commonest construction materials. Since it contains no resin, it is more compatible with substrates, lasts longer and is easier to apply, all to the benefit of operator health.

Fields Of Application

MasterFlow® 960 TIX is an anchoring agent for applications where high performance is required, such as:

- anchoring of bars with improved adhesion and threaded rebars on concrete, for grouting in general, for example, of safety barriers, noise barriers etc. **MasterFlow® 960 TIX** can also be used on a damp or wet substrate. Being a fluid mix it can be used for applications where casting into holes is possible

Features And Benefits

- **MasterFlow® 960 TIX** complies with the acceptability limits indicated in UNI EN 1504 part 6.
- Application of the product is far less limited than for conventional structural resins, which create problems if used in particular at ambient temperatures below +10°C; **MasterFlow® 960 TIX** can in fact be applied at temperatures as low as -5°C.

- High chemical compatibility and “monolithicity” with the substrate, something that often limits the use of conventional structural resins, which in any case do not guarantee a monolithic type substrate-anchoring agent result.
- Long lasting. High adhesion and in general high mechanical performance.
- Easy to use with none of the bothersome odours so typical of conventional resins.
- Quick to develop strength, thereby saving time; workability and curing times are given in the table below
- May also be used in applications with large diameter rebars and with large diameter holes.
- May also be applied on damp substrates, something that often limits use of conventional structural resin.
- Very resistant to high temperatures (e.g. in the case of impact and fire) thanks to the nature of the anchoring agent.
- Resistant to aggressive chemicals, such as those listed in the table below

Packaging

12 kg bags are available
Consumption
Water Quantity: 1,9 - 2,0 kg/l

Shelf Life

12 months in original unopened packaging if stored in appropriate conditions. Opened packagings should be consumed in one week.



Performance Grouts

PERFORMANCE GROUTS PRODUCT SUGGESTION TABLE

		Products	MasterFlow® 828	MasterFlow® 928	MasterFlow® 402	MasterFlow® 648	MasterFlow® 402 RS	MasterFlow® 4800
Installation of Turbines and Machine to Foundations		•	•	•	•	•	•	•
Installation of Mahines Exposed to High Dynamic Loads				•	•	•	•	
Repair of Gaps Between Reinforced Concrete Beams and Walls		•	•					•
Fixing and Installation of Steel Column to Foundations		•	•	•	•	•	•	•
Repair of Reinforced Concrete Piles		•	•					
APPLICATION TYPE	Applications with Formwork Trowel-Spatula	•	•	•	•	•	•	•
	Trowel - Spatula Applications							
	Brush and Roll Applications							
	Gun Applications							



MasterFlow® 828

Description Of Product

MasterFlow® 828, is cement based one part, grout.

Fields Of Application

- Fixing of the steel columns on the RC foundations
- Filling of the voids in the jacketing applications
- Fixing of the generators, compressors and pumps on the foundations
- Fixing of the industrial machines on the foundations
- In power plants
- Fixing of pre-cast concrete elements
- Under slab track

Features And Benefits

- Self compacting
- Free of bleeding
- Non-shrink

- High compressive strength
- High fluid consistency
- Perfect bonding to the concrete and steel
- Mixed with only water and can be applied easily
- Resistant to water and weather conditions,

Coverage

19.00 kg/m² for obtaining 1 cm thick layer second layer of the mortar should be applied in same way or consult to the.

Packaging

25 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Technical Data

Property	Standart	Unit	Value
Product Chemistry	-	-	Mineral Fillers and Cement
Compressive Strength	TS EN 196	N/mm ²	1 day 7 days 28 days >25 >50 >60
*Flexural Strength (28 days)	TS EN 196	N/mm ²	>8,0
Bonding Strength (28 days)	TS EN 1542	N/mm ²	to concrete to stell >2,0 >2,0
Elastise Modülü (28 days)	TS EN 13412	N/mm ²	>20000
Capiy WaterAbsorption	TS EN 13057	kg.m ² .saat-0.5	<0,5
Aplication Thickness	-	-	min. 10 mm maks. 65 mm
Application Temperature	-	°C	+5 +30
Servis Sıcaklığı	-	°C	-20 +400
Pot Life	+20°C	minutes	45
Open Time to Pedastrian Traffic	+20°C	hour	24
Fully Cured	+20°C	days	28

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions
High temperatures shortens the curing and working time, lower temperatures extends the durations



MasterFlow® 928

(Formerly known as Emaco® S55)

Description Of Product

MasterFlow® 928, is cement based one part, self compacting non-shrink grout.

- Resistant to water and weather conditions
- Perfect bonding to the concrete and steel
- Non-shrink

**Complies with EN 1504-6 and EN 1504-3/R4
ASTM C1107 Type B and Type C**

Coverage

19.00 kg/m² for obtaining 1 cm thick layer.

Fields Of Application

- Construction of shear wall caps and column caps
- Fixing of pre-cast concrete elements
- Fixing of the turbines on the foundations
- Fixing of the generators, compressors and pumps on the foundations
- Fixing of the industrial machines on the foundations
- Fixing of the steel columns on the RC foundations
- Filling of the voids in the jacketing applications

Packaging

25 kg bag

Shelf Life

12 months under proper storage conditions after production date.

Features And Benefits

- Mixed with only water and can be applied easily
- High compressive strength
- High fluid consistency
- Free of bleeding

Technical Data

Product Chemistry	Mineral Fillers and Cement	
Color	Grey	
Compressive Strength (TS EN 196)		
1d	>30 N/mm ²	
7d	>50 N/mm ²	
28 d	>60 N/mm ²	
Fexural Strength (TS EN 196 (28 d)	>8,0 N/mm ²	
Bonding Strength (TS EN 1542) (28 d) To concrete	>2,0 N/mm ²	
To steel	>2,0 N/mm ²	
Elasticity Modulus (TS EN 13412) (28 d)	>20000 N/mm ²	
Capillary Water Absorption (TS EN 13057)	<0,5 kg.m-2.hour-0,5	LK
Application Thickness	Min. 10 mm Maks. 80 mm	
Application Temperature	+5°C +30°C	
Service Temperature	-20°C +40°C	
Pot Life (+20°C)	45 m.	
Open Time to Pedestrian Traffic	24 hours	
Fully Cured at 20°C	28 days	



MasterFlow® 402

Description Of Product

MasterFlow® 402, is epoxy based grout and repair mortar with three parts including well graded quartz aggregate.

Complies with EN 1504-6

Fields Of Application

- Repair of runways and track in airports
- Repair of concrete pavements
- Fixing of prefabricated beams in bridge joints
- Mounting heavy machines to the foundations
- Machine foundations under heavy dynamic loads
- Repair of crane runways and high strength required mountings
- Column-beam connections in the reinforced concrete bridge structures
- Mounting the steel columns to the reinforced concrete foundations
- Repair and maintenance of reinforced concrete marine structures
- Repair of underground reinforced concrete structures
- Repair and insulating of wide cracks on vertical structural elements, beams and ceilings

Features And Benefits

- Can be applied without primer
- Pourable
- Resists to chemicals
- High mechanical strengths
- High abrasion and impact resistance
- High bonding strength to the concrete and steel
- Long pot life
- Non-shrink
- Solvent free

Coverage

2.0 kg/m² for obtaining 1 mm thick layer.

Packaging

15.625 kg set
Part A: 2.000 kg pail
Part B: 1.125 kg pail
Part C: 12.500 kg bag

Shelf Life

18 months under proper storage conditions after production date.

Technical Data

MasterFlow® 402 Part A MasterFlow® 402 Part B MasterFlow® 402 Part C	Epoxy Resin Epoxy Hardener Quartz Aggregate
Mixed Density	2,00 ± 0,05 kg/litre
Compressive Strength (TS EN 196) 1 day 7 days	>35 N/mm ² >80 N/mm ²
*Flexural Strength (TS EN 196) 1 day 7 days	>20 N/mm ² >30 N/mm ²
Bonding Strength (7 days) To concrete To steel	>2,0 N/mm ² >3,0 N/mm ²
Application Thickness	Min. 4 mm Maks. 50 mm
Elasticity Modulus	≥ 8 GPa
Application Temperature	+5°C +35°C
Service Temperature	-15°C +80°C
Pot Life	30 minutes
Recoat after	18-24 hours
Fully Cured at 20°C	7 days

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations



MasterFlow® 648

Description Of Product

MasterFlow® 648, is an epoxy resin-based precision grout used to secure critical equipment for proper alignment and transmission of static and dynamic loads. With carefully balanced physical properties and excellent resistance to chemical attack, vibration and torque, **MasterFlow® 648** is formulated for easy installation, with good flow characteristics suitable for pouring or pumping, low dust generation and soap and water cleanup. **MasterFlow® 648** is available in all regions of the world, supported by trained Master Builders Solutions Construction Chemicals sales and technical personnel with experience in the specification and installation of epoxy grouts on every continent.

Fields Of Application

- Chemical processing
- Oil and Gas extraction, refining, processing and distribution
- Precision alignment of compressors, generators, pumps, fans and electric motors
- Crane rail grouting
- Grouting of rolling, stamping, grinding, crushing, drawing and finishing mills, forging hammers and other equipment subject to high torque, impact and vibration
- * **MasterFlow® 648** can be used in the following industries; The following list consists of only examples and does not form a complete and comprehensive list. Please contact Master Builders Solutions Construction Chemicals for further information on the application possibilities
- Power generation
- LNG production, storage and transmission
- Pulp and paper production

- Steel and aluminium manufacturing
- Mining
- Other heavy industry

Features And Benefits

- High early and ultimate strengths for rapid turnaround
- Low exothermic – can be used for grouting at high ambient and surface temperatures up to 45°C
- Low creep maintains equipment alignment
- Low-dusting for added worker comfort and safety
- Non shrinkage
- Excellent flowability with high bearing area for even load distribution
- Excellent adhesion to concrete for optimum load transfer and vibration dampening
- Chemical resistance for use in challenging environments
- Resistance to water and chloride intrusion in wet and aggressive environments
- Resistance to impact and dampens torque to protect equipment and extend service life
- Pumpable for maximum productivity on large grout installations
- Globally available for consistent project results

Packaging

52.15 kg set (~ 26 lt)

MasterFlow® 648 Part A : 5,136 kg tin

MasterFlow® 648 Part B : 1,614 kg tin

MasterFlow® 648 Part C : 2x22,7 kg Kraft Bag

Shelf Life

Shelf life is 12 months when stored as above in original sealed bags.



MasterFlow® 648

Technical Data

Property	Standart	Unit	Data	
			Flowable	Fluid
Density	EN 1015-6	g/cm ³	1,974	1,891
Compressive Strength 1 day 7 days	ASTM C 579	MPa	>70 >100	>70 >85
Flexural Strength (7 days)	EN 196-1	MPa	>25	>17
Modulus of Elasticity (7 days)	TS EN 13412	GPa	>16	>15
Adhesion Strength (28 days)	TS EN 1542	MPa	Concrete failure	Concrete failure
Pull-out Strength dry wet	EN 1881 (Displacement at 75 kN load ≤ 0,6 mm)	mm	0,12 0,08	
Creep Under Sustained Tensile Load dry wet	EN 1544 (Replacement after 3 months under load of 50 kN ≤ 0,6 mm)	mm	0,11 0,13	0,16 0,11
Bearing Area	ASTM C 1339	%	>85	
Pot Life	+23°C	minites	60	50
Thermal Expansion Coefficient	EN 1770	mm/mm.°C	23,9x10 ⁻⁶	31,1x10 ⁻⁶
Chloride ion content	EN 1015-17 (≤ %0,05)	%	None	
Application Thickness	-	mm	Min.100 Max.300	Min.20 Max.150
Application Temperature	-	-	+5°C +35°C	
Recoatible after	+23°C	hours	18-24	
Fully cured	+23°C	days	7	

Typical values are obtained from the test results in 23°C and 50% relative humidity conditions. High temperatures shorten the curing and working time, lower temperatures extends the durations



MasterFlow® 402 RS

(Formerly known as Masterflow® 402 F)

Description Of Product

MasterFlow® 402 RS is epoxy based fast setting grout and repair mortar with three parts including well graded quartz aggregate.

Complies with EN 1504-3/R4 and EN 1504-6

Fields Of Application

- Repair of runways and tracks in airports,
- Repair of concrete pavements,
- Fixing of prefabricated beams in bridge joints,
- Mounting heavy machines to the foundations,
- Machine foundations under heavy dynamic loads,
- Repair of crane runways and high strength required mountings,
- Column-beam connections in the reinforced concrete bridge structures.
- Mounting the steel columns to the reinforced concrete foundations.
- Repair and maintenance of reinforced concrete marine structures,
- Repair of underground reinforced concrete structures,
- Repair and insulating of wide cracks on vertical structural elements, beams and ceilings.

Features And Benefits

- Can be opened to service in 2 hours.
- Can be applied without primer.
- Resists to chemicals.
- High mechanical strengths.
- High abrasion and impact resistance.
- High bonding strength to the concrete and steel.
- Non-shrink.
- Solvent free.

Coverage

2.00 kg/m² for obtaining 1mm thick layer.

Packaging

15.625 kg set
Part A: 2.000 kg pail
Part B: 1.125 kg pail
Part C: 12.500 kg bag

Shelf Life

18 months under proper storage conditions after production date.

Technical Data

Product Chemistry MasterFlow® 402 RS Part A MasterFlow® 402 RS Part B MasterFlow® 402 RS Part C	Epoxy Resin Epoxy Hardener Quartz Aggregate	
Mixed Density	2,00 ± 0,05 kg/liter	
Compressive Strength (20°C) TS EN 196 2 hours 4 hours 24 hours	>30 N/mm ² >60 N/mm ² >100 N/mm ²	
Flexural Strength TS EN 196 (20°C) (28 days) TS EN 196	>20 N/mm ²	
Bonding Strength (7 days) To concrete To steel	>2,0 N/mm ² >3,0 N/mm ²	WK
Application Thickness	Min. 4 mm Maks. 50 mm	
Application Temperature	+5°C +35°C	
Service Temperature	-15°C +80°C	
Pot Life (20°C)	30 minutes	
Open Time for Vehicular Traffic (20°C)	2 hours	
Fully Cured at (20°C)	24 hours	

Typical values are obtained from the test results of 4x4x16 mortar prism in 23°C and 50% relative humidity conditions. High temperatures shortens the curing and working time, lower temperatures extends the durations



MasterFlow® 4800

Description Of Product

MasterFlow® 4800, is a single part, cement based, metallic aggregate reinforced, non-shrink, ultra high strength grout. It has ultra-high early and final strengths.

When mixed with water, **MasterFlow® 4800** forms a mortar with a fluid consistency which can be easily applied by hand or machine.

Fields Of Application

MasterFlow® 4800, is used for assembling and fixing of the following items:

- Industrial turbines, generators and compressors
- Rolling, stamping, grinding, drawing and finishing mills
- Forging hammers
- Rail tracks, crane rails
- Paper machine sole plates
- Machinery and equipment requiring high strength maximum bearing

Features And Benefits

- Meets the requirements of EN 1504-6.
- Sustainable and contributes to LEED points.
- Contains metallic aggregates to provide high strengths and increased impact resistance under dynamic and repetitive loading.
- Very high early strengths shorten the waiting time for

starting the machinery process.

- Ultra high final strengths allow very high compressive loading.
- Provides solutions for various application details with wide application thickness: 20-150mm.
- Hardens without bleeding, settlement or drying shrinkage when mixed, placed and cured.
- Can be used at temperatures down to 2°C when mixing and placing recommendations are followed.
- Designed for use where thermal movement of equipment and machinery and other effects of heating/cooling and wetting/drying are anticipated.
- High flow for full compaction even in areas with congested steelwork.
- For hand or machine application.
- Extra low shrinkage for durability.
- Excellent freeze/thaw resistance.
- Very low permeability to water and chlorides.

Coverage

Approx. 2,370 kg powder is needed to prepare 1 m³ of fresh mortar. 25 kg bag will yield approximately 10.5 litres of mortar.

Packaging

MasterFlow® 4800 is available in 25 kg paper bags.

Shelf Life

12 months if stored at above mentioned storage conditions.

Technical Data

Property	Standard	Data	Unit
Chemical Base	-	Cement	-
Color	-	Grey	-
Layer Thickness minimum maksimum	-	20 150	mm
Fresh Mortar Density	-	Approx. 2,6	g/cm ³
Flow in the Channel (23°C) after mixing. after 30 min. after 60 min. after 90 min.	Rili-SIB DAfStb	> 60 > 55 > 55 > 50	cm
Mixing Water for 25 kg Bag	-	2,5	l
Working Time ²	-	45	Minute
Application Temperature (ambient and substrate)	-	+2 - +35	Celcius
Compressive Strength (20°C) 1 day 7 days 28 days	EN 196-1	≥ 60 ≥ 90 ≥ 100	N/mm ²
Compressive Strength (2°C) 1 day 7 days 28 days	EN 196-1	≥ 30 ≥ 90 ≥ 100	N/mm ²
Flexural Strength (20°C) 2 days 7 days 28 days	EN 196-1	≥ 9 ≥ 12 ≥ 17	N/mm ²
Flexural Strength (2°C) 2 days 7 days 28 days	EN 196-1	≥ 5 ≥ 12 ≥ 16	N/mm ²
Elasticity Modulus (static) 90 days	EN 13412	≥ 40,000	N/mm ²
Elasticity Modulus (dynamic) 90 days	EN13412	≥ 40,000	N/mm ²
Freeze – Thaw Resistance 28 days	EN 12390-9	No scaling	-
Adhesion to Concrete After Freeze-Thaw 50 cycles with salt) 28 days	EN 13687-1	≥ 2.0	N/mm ²

Note: 1 Flow the channel in 300 seconds.

2 Hardening times are measured at 21°C ± 2°C and 60% ± 10% relative humidity, Higher temperatures will reduce these times and lower temperatures will extend them. Technical data shown are statistical results and do not correspond to guaranteed minima. Tolerances are those described in appropriate performance standards



Cement Based Floor Coating Systems



MasterTop® 100

Description Of Product

MasterTop® 100, is a pre-mixed, dry-shake surface hardener, which contains hydraulic binder and high concentration of special graded mineral aggregates.

MasterTop® 100, has a low chromate content (Cr-VI) ≤ 2 ppm on cement weight.

Fields Of Application

- **MasterTop® 100** offers following advantages;
- High abrasion resistance (twice as much as normal concrete floor)
- Low level of porosity due to maximum compactness
- Attractive
- Easy to clean
- Available in different colours
- Limited dust formation
- Mineral oils and petrol resistant

- Basements and cellars
- Mechanical workshops
- Garages for passenger cars
- Storage rooms
- Corridors, halls
- Educational facilities
- Parking areas
- Loading platforms

Consumption

For light to medium traffic 3 – 5 kg/m²

For medium to heavy traffic 5 – 8 kg/m²

For coloured floors, especially light colours 7 – 8 kg/m²

Packaging

MasterTop® 100 is packaged in 25 kg moisture resistant bags and big bags.

Technical Data

Physical form		Ready to use powder
Color		Cement grey, further colors see color -chart
Curing		Necessary
Filling Joint		Recommended
Compressive Strength (28 Days)	EN 13982-2	C30
Flexural Strength (28 days)	EN 13982-2	F5 (5-15 N/mm ²)
Abrasion Resistance BOHME	EN 13982-3-2004	A9 (maks. 9cm ³ /50 cm ²)
Resistance to Fire		A1 _{fl}
Release of Corrosive Substances		CT (Cementitious Screeds)



MasterTop® 115

Description Of Product

MasterTop® 115, is a pre-mixed, dry-shake surface hardener, which contains hydraulic binder and

Fields Of Application

MasterTop® 115, is recommended for industrial floors with light to moderate traffic in:

- Basements and cellars
- Mechanical workshops
- Garages for passenger cars
- Storage rooms
- Corridors, halls
- Educational facilities
- Parking areas.

Features And Benefits

- High abrasion resistance (twice as much as normal concrete floor)

- Low level of porosity due to maximum compactness
- Attractive
- Easy to clean
- Available in different colours
- Limited dust formation
- Mineral oils and petrol resistant

Consumption

MasterTop® 115, Depending on the area of usage and traffic load; average 4 – 8 kg/m²

Packaging

MasterTop® 115, is packaged in 25 kg moisture resistant bags and big bags.

Technical Data

Physical form		Ready to use powder
Color		Cement grey
Curing		Necessary
Filling Joint		Recommended
Compressive Strength (28 Days)	EN 13982-2	65 N/mm ²
Flexural Strength (28 days)	EN 13982-2	9 N/mm ²
Resistance to Fire		A1 _{fl}
Release of Corrosive Substances		CT (Cementitious Screeds)
Impact Resistance (IR)	EN ISO 6272-1 (EN 1504-2)	Class I



MasterTop® 200

Description Of Product

MasterTop® 200, is a pre-mixed, dry-shake surface hardener, based on hydraulic binder and specially treated metallic aggregates, with anti-corrosion agent. **MasterTop® 200** has a low chromate content (Cr-VI) ≤ 2 ppm on cement weight.

Fields Of Application

- Mechanical workshops, garages
- Assembling plants in the automotive industry
- Storage areas and traffic ways in the steel industry
- Aircraft hangars
- Storage areas subject to heavy loads
- Printing shops
- Dry areas in paper mill

Features And Benefits

- Excellent impact resistance
- High abrasion resistance (8 times more than normal concrete floor)
- Easy to apply

- Low level of porosity due to maximum compactness
- Easy cleaning and maintenance
- Available in different colours
- Limited dust formation
- Mineral oils and petrol resistant.

Consumption

For light to medium traffic: 4 – 6 kg/m²
 For medium to heavy traffic: 6 – 7,5 kg/m²
 For heavy traffic: 7,5 – 9 kg/m²
 For very heavy traffic: 9 – 10 kg/m²
 For coloured floors, especially light colours: 7 – 8 kg/m²

Packaging

MasterTop® 200 is packaged in 25 kg moisture resistant bags and big bags.

Technical Data

Physical form		ready to use powder
Color		cementgrey, further colors see color-chart
pH		> 12
Aggregate Size		0 – 2,4 mm
Curing		necessary
Filling Joint		necessary
Compressive Strength (28 Days)	EN 13982-2	> 70 N/mm ²
Eğilme Dayanımı (28 Days)	EN 13982-2	> 10 N/mm ²
Flexural Strength (28 days)	EN 13412	40 kN/mm ²
Adhesion to concrete	EN 13982-8 class > B 2,0	3,4 N/mm ²
Abrasion resistance BCA	EN 13982-4	AR0,5 (max. 50 µm wear depth)
Abrasion resistance BOHME	EN 13982-3-2004	A3 (max . 3c m ³ /50 cm ²)
Abrasion resistance TABER	ISO 5470-1 (1999) steel Wheel CS-17	0,09 gr/1000 rev.
Abrasion resistance AMSLER	NBN-15-223	2,35 mm/3000 m
Resistance to fire		A1 _{f1}
Release of corrosive substances		CT (cementitious screeds)
Impact resistance (IR)	EN ISO 6272-1 (EN 1504-2)	Class III

*Technical properties are obtained in lab-conditions with 3 l/25 kg powder



MasterTop® 430

(Formerly known as Mastertop® 300)

Description Of Product

MasterTop® 430, is a cement based, mineral and corundum aggregated surface hardener designed to be applied as a dry shake over freshly floated surface concrete which will be exposed to heavy duty.

Fields Of Application

MasterTop® 430, is designed to ensure durability in applications where floor is subject to medium and heavy traffic and where a non-dusting surface is required. It will improve and enhance the performance of all concrete floors.

- Used in workshops
- In energy stations
- In garages
- In car parks
- In storage areas
- In loading bays
- In factories
- In shipyards
- In aircraft hangars
- In car wash shops
- In helicopter landing sites

Features And Benefits

- Easily applied on freshly floated surface concrete.
- With its modified polymers, it absorbs the water

of the surface concrete on which it has been applied and forms a monolithic structure with bare concrete.

- Do not oxidize.
- Hardener applied surface is 4-6 times more resistant to abrasion than bare concrete.
- Contains properly sized and graded corundum aggregate.
- Resistant to freeze-thaw circle.
- Resistant to flaking due to the salt application against freezing.

Consumption

Based on the purpose of use and traffic load 4-8 kg/m². For light colored applications, the application should not be less than 7 kg/m².

Packaging

MasterTop® 430, is packaged in 25 kg moisture resistant bags and big bags.

Technical Data

Physical form		Ready to use powder
Color		Cement grey, further colors see color -chart
Curing		Necessary
Filling Joint		Recommended
Compressive Strength (28 Days)	EN 13982-2	C40
Flexural Strength (28 days)	EN 13982-2	F5 (5-15 N/mm ²)
Adhesion to Concrete	EN 13982-8 class > B 2,0	2,5 N/mm ²
Abrasion Resistance BOHME	EN 13982-3-2004	A6 (max. 6cm ³ /50 cm ²)
Resistance to Fire		A1 _{fl}
Release of Corrosive Substances		CT (Cementitious Screeds)
Impact Resistance (IR)	EN ISO 6272-1 (EN 1504-2)	Class I



MasterTop® 435

Description Of Product

MasterTop® 435, is a cement based, mineral and corundum aggregated surface hardener designed to be applied as a dry shake over freshly floated surface concrete which will be exposed to heavy duty.

Fields Of Application

MasterTop® 435, is designed to ensure durability in applications where floor is subject to medium and heavy traffic and where a non-dusting surface is required. It will improve and enhance the performance of all concrete floors.

- Used in workshops
- In energy stations
- In garages
- In car parks
- In storage areas
- In loading bays
- In factories
- In shipyards
- In aircraft hangars

- In car wash shops
- In helicopter landing sites,

Features And Benefits

- Easily applied on freshly floated surface concrete.
- With its modified polymers, it absorbs the water of the surface concrete on which it has been applied and forms a monolithic structure with bare concrete.
- Do not oxidize.
- Hardener applied surface is more resistant to abrasion than bare concrete.
- Resistant to freeze-thaw cycle.
- Resistant to flaking due to the salt application against freezing.

Consumption

Depends on application fields and traffic loads; 4-8 kg/m²

Packaging

MasterTop® 435 is packaged in 25 kg moisture resistant bags.

Technical Data

Physical Type		Ready to use powder
Color		Cement grey, further colors see color-chart
Curing		Necessary
Filling joint		Recommended
Compressive strength (28 days)	EN 13982-2	60 N/mm ²
Flexural strengths (28 days)	EN 13982-2	F7 N/mm ²
Fire Resistance		A1 _n
Release of corrosive substances		CT (Çimento Esaslı Şap)
Impact resistance (IR)	EN ISO 6272-1 (EN 1504-2)	Class I



MasterTop® CC 733

Description Of Product

MasterTop® CC 733, is a water-based ultrahigh solid lithium surface hardener used to densify, harden, dustproof new or existing concrete floors

Fields Of Application

MasterTop® CC 733 is useful for new or existing concrete or cement based screeds

- Shopping malls
- Supermarkets
- Car parks
- Aircraft Hangars
- Warehouses
- Distribution Centres
- Production Facilities
- Offices
- Factories

Features And Benefits

- Easy to apply
- Excellent penetration
- Increases abrasion resistance
- Helps reduce efflorescence and alkali-silica reaction
- Can be applied over new or existing concrete
- Good stain and water resistance.
- Increase brightness of applied surfaces

Consumption

MasterTop® CC 733, should be applied as a single layer. Average coverage rate is around 50 – 150 gr/m². Depending on concrete class and absorbance of the concrete, consumption will be changed.

Packaging

MasterTop® CC 733 is supplied in 25 kg plastic jerrycan packs.

Technical Data

Type of Material	Liquid
Colour	Transparent
pH	11
Bohme Abrasion Resistance (EN ISO 5470-1 28 Day Concrete) cm ³ /50 cm ²	14,20
Flash point	Non- Flammable
Application Temperature	+5°C - +40°C
Dry solid content (%)	17 ± 1



MasterTop® 500

Description Of Product

MasterTop® 500, is a mortar bonding agent for bonding screeds and cementitious mortars. For indoor and outdoor use.

Fields Of Application

- Indoor and outdoor use
- For walls and floors
- Bonding agent for repair mortar, ready-to-mix mortar for fast-track screeds, drain and screed mortar and sand-cement mortar
- Bonding agent for the installation of fast setting screeds based on binder as well as for conventional cement screeds.
- Bonding agent for the production of bonded coverings in industrial and commercial areas an also for sloping screeds on balconies and terraces.
- Bonding agent for natural stone insensitive to staining and non-translucent.

Features And Benefits

- Highly secure bonding. Following the appropriate preparation of the substrate, a powerful bond is
- Formed between the cement-based substrate and the conventional cement screeds.
- Waterproof
- Frost resistant
- Suitable for universal internal and external use.

Consumption

Appr. 2-2.5 kg/m² (dry mix)

Packaging

MasterTop® 500, 25 kg polyethylene reinforced kraft bag

MasterTop® 500	1 kg powder	25 kg pack
Mixing Water Ratio	Appr. 240 ml	Appr. 6 lt

Technical Data

Physical form	Ready to use powder
Components	Single component
Material base	Special cement, polymers and aggregates
Layer thickness	~ 1,5 mm
Working temperature	+5°C to +30°C
Mixing time	~ 3 minutes
Working time*	~ 1 hour

* At 23°C and 50% relative humidity. Higher temperatures reduce, lower temperatures increase the times given.



MasterTop® 528

Description Of Product

MasterTop® 528, is a cement based and suitable for thin and thick application at a time, ready to use, self-levelling flooring screed.

Complies with the EN 13813

Fields Of Application

- Indoors and in dry environment,
- In hospitals,
- In stores,
- In schools and administrative buildings,
- In hotels,
- In shopping malls,
- In houses, used for levelling uneven, irregular substrate prior to laying ceramic tiles, marble, natural stone, carpet and vinyl.

Features And Benefits

- Highly fluid and pumpable for fast application
- Rapid strength gain for fast installation of floor coverings
- Low installation cost
- Ready for foot traffic after 3-4 hours
- Return to service in 24 hours
- Self levelling

Consumption

1.69 kg/m² powder per 1 mm thickness

Packaging

MasterTop® 528, MasterTop® 100 is packaged in 25 kg moisture resistant bags and big bags.

Technical Data

Physical form		Ready to use powder
Color		Grey
Application Thickness		2 – 30 mm
Open to Foot Traffic		3 hours
Substrate Temperature		5 – 25 °C
Working Time		70 – 100 minutes
Compressive Strength (28 Days)	EN 13982-2	>20,0 N/mm ²
Flexural Strength (28 days)	EN 13982-2	>4,0 N/mm ²
Adhesion to Concrete	EN 13982-8 class > B 2,0	2,3 N/mm ²
Resistance to Fire		A1 _{fl}
Release of Corrosive Substances		CT (Cementitious Screeds)

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® 530

(Formerly known as Mastertop® 530LE)

Description Of Product

MasterTop® 530, is a cementitious-acrylic based, two component, applied with 4-8 mm thickness, smooth surfaced, industrial type, self levelling steel fiber reinforced floor coating with high abrasion resistance.

Fields Of Application

- In factory and warehouse floors,
- In car parks, garages and parking ways,
- In balconies and terraces,
- In loading bays,
- In worn and torn industrial floors.

Features And Benefits

- Smooth surfaced
- Easy and fast application, economic.
- High abrasion and compressive strength.

- Non-dusting, long lasting.
- Provides perfect adherence to the surface.
- Not effected from mechanical impact and heat changes.
- Pursuant to ASTM C672-84 (together with anti-icing salt) resistant to freeze-thaw cycle.

Consumption

1.93 kg/m² in order to obtain 1 mm of thickness.

Packaging

MasterTop® 530 is supplied with component A in 25 kg polyurethane reinforced kraft bags and component B in 8 kg plastic drums.

Technical Data

Physical form	Part A Part B	Powder Copolymer Acrylic Dispersion
Color		Grey
Application Thickness		4 – 8 mm
Open to Foot Traffic		5 – 25 °C
Substrate Temperature		30 Minutes
Working Time	EN 13982-2	21,5 N/mm ²
Compressive Strength (28 Days)	EN 13982-2	2,0 N/mm ²
Flexural Strength (28 days)	EN 13982-8 class > B 2,0	2,3 N/mm ²
Abrasion Resistance BOHME	EN 13982-3-2004	A9 (max. 9cm ³ /50 cm ²)
Resistance to Fire		Bfl.S1
Release of Corrosive Substances		CT (Cementitious Screeds)



MasterTop® 135 PG

(Formerly known as Mastertop® 135 P)

Description Of Product

MasterTop® 135 PG, is a ready-to-use, pumpable, pourable, screedable and high-strength cement based overlay for floors in indoor and outdoor.

MasterTop® 135 PG is suitable for levelling rough and uneven concrete floors in a thickness layer from 5 - 15 mm.

MasterTop® 135 PG, is formulated with sulphate resistant Portland cement, reinforced with PAN (polyacrylonitrile) fibers and mineral aggregates. **MasterTop® 135 PG** has a low chromate content (Cr-VI) < 2 ppm on cement weight.

Fields Of Application

- Use on rough concrete and cementitious floor creeds, as well as other suitable substrates.
- Industrial floors with normal loading.
- Where a mortar with high final strength similar in colour to concrete is desired.
- Reprofiling of horizontal surfaces as industrial inside and outside floors, etc.
- Use for exposure classes XC4, XF4, XD3, XA3 according to EN 206-1 (Concrete standard).

Features And Benefits

- An economical, ready-to-use cement based flooring overlay, that hardens free of bleeding at following consistency: from flowable to high plastic.
- A mortar that retains good workability for at least 30 minutes at 15 to 25°C.
- Resistant to alkaline surroundings
- A ready-to-use product, water is added on site.
- The use of a high-yield mortar pump (screw pump) allows the prepared product to be pumped without segregation.
- Can simply be poured out and distributed.
- The mortar will cure without blistering.

Consumption

25 kg **MasterTop® 135 PG** PG, mixed with 3 (3,0 – 3,5) liters of water produces approximately 12,5 liters mortar (0,0125 m³).

Packaging

MasterTop® 135 PG is packaged in 25 kg moisture-resistant bags and big bags.

Technical Data

Physical form		Ready to use powder
Color		Cement Grey, colors see color-chart
Curing		Necessary
Filling Joint		Necessary
Water Content/25 kg		3,0 – 3,5 liters
Compressive Strength (28 days)	EN 13982-2	≥ 60 MPa
Flexural Strength (28 days)	EN 13982-2	≥ 9,43 MPa
E-modulus (28 days)	EN 13412	40 kN/mm²
Adhesion to Concrete	EN 13982-2 class>B 2,0	2,5 N/mm² (concrete failure)
Abrasion Resistance BOHME	EN 13982-3-2004	A6 (max. 6 cm³/ 50 cm²)
Resistance to Fire		A1 _{fl}
Release of Corrosive Substances		CT (cementitious screeds)
Impact resistance (IR)	EN ISO 6272-1 (EN 1504-2)	Class III



Epoxy and Polyurethane Based Floor Coating Systems

EPOXY AND POLYURETHANE BASED FLOOR COATING SYSTEMS PRODUCT SUGGESTION TABLE

COATING SYSTEM		EPOXY COATINGS			POLYURETHANE COATINGS			"WATER BASED EPOXY COATINGS"			
		Products	MasterTop® 1273	MasterTop® 1273 AS , 1273 AS-R	MasterTop® 1273 R	MasterTop® 1324	MasterTop® 1324 A	MasterTop® 1324 AR	MasterTop® 1325	MasterTop® 1326	MasterTop® TC 485W
GENERAL	Production Areas	•	•	•	•	•					•
	Loading-Unloading Areas	•	•	•	•	•					
	Product Warehouses	•	•	•	•	•					
	Raw Material Warehouses	•	•	•	•	•					
	Office Areas	•		•				•	•		
FOOD INDUSTRY	Wet Production Areas			•							
	Dry Production Areas	•		•							
	Heat Treatment Areas (>60°C)										
	Chemical Treatment Areas	•	•	•							
	Cold Storage Areas	•	•	•							
PHARMA CHEMICAL INDUSTRY	Chemical Treatment Areas	•	•	•							
	Laboratories	•		•							
	Packaging	•		•							
	Warehouse	•	•	•							
CHEMICAL INDUSTRY	Chemical Treatment Areas	•	•	•							
	Heat Treatment Areas (>60°C)										
	Laboratories	•		•							
	Packaging	•		•							
	Warehouse	•	•	•							
ELECTRONICS AND EXPLOSIVES	Productions Areas		•				•				
	Warehouse		•				•				
	Packaging		•				•				
HEAVY INDUSTRY	Productions Areas	•	•								
	Warehouse	•	•								
GENERAL USAGE AREAS	Schools	•		•			•	•			
	Shooping Malls	•		•			•	•			
	Exhibition Areas	•	•	•	•		•	•			
	Hospitals	•	•	•	•		•	•	•		
	Hotels,Holiday Villages	•		•			•	•	•		•
	Carparks,Garages	•	•								



MasterTop® 1273

Description Of Product

MasterTop® 1273, is an epoxy based, smooth surfaced, easily cleaned, hygienic, self-leveling floor coating system used on floors which are exposed to medium.

Fields Of Application

- Medium to heavy industrial wear
- On concrete and cement screeds
- Warehouses
- Production areas
- Laboratories
- Pharmaceutical and other medical or laboratory situations
- Supermarkets and shopping malls
- Aircraft hangars
- Exhibition halls
- Carparks

Features And Benefits

- Exhibits excellent mechanical strength
- Application as self-leveling body coat on smooth surfaces and as top coat on broadcasted surfaces
- Low emissions: AgBB conform
- Extremely resistant if exposed to medium to heavy industrial wear
- Abrasion resistant
- Easy to apply
- Easy to clean and maintain
- Resistant to water, sea and waste water, variety of alkalis, diluted acids, brine, mineral oils, lubricants and fuels.

Technical Data

		Consumption ca.:
Primer	MasterTop® P 604 or P 617 yellowish, EP,2 component, pre-filled	0.3 – 0.5 kg/m ²
Sand Broadcast*	Oven dried silica sand, size 0,3-0,8 mm, uniformly applied, not in excess	0.8 – 1.0 kg/m ²
Optional Scratch Primer	MasterTop P 604 (or P 617) Filled 1 : 0,5 up to 1:1 with oven dried silica sand, size 0,1-0,3 mm	0.6 – 2.0 kg/m ²
Sand Broadcast	oven dried silica sand, size 0,3-0,8	2.0 – 3.0 kg/m ²
Body Coat	MasterTop BC 372 pigmented, EP, 2 component, low emission Filled till 1:0,7 with oven dried silica sand, size 0,1- 0,3 mm	3.5 – 5.0 kg/m ²
Optional Top Coat***	MasterTop TC 442 W (pigmented) pigmented, PUR, 2 component, water-based, UV resistant, silk-mat	0.08 – 0.10 kg/m ²
Optional Top Coat 2	MasterTop TC 442 W (transparent) clear, PUR, 2 component, water-based, UV resistant, silk-mat	0.10 – 0.15 kg/m ²
Total thickness of The system		2.5 – 5.0 mm

Remark: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.

** MasterTop P 604 needs only to be broadcasted with silica sand if the re-coating intervals are not respected*

*** Total consumption including sand. The consumption depends on the filling ratio and the roughness of the surface.*

**** The use of a mat finish top coat or the broadcasting of aggregates (for ex MasterTop Texture fine) is required in order to reach a slip resistant surface*



MasterTop® 1273 AS

Description Of Product

MasterTop® 1273 AS, is an epoxy based, easily cleaned, hygienic, self leveling floor coating system with smooth surface and high level of mechanical and chemical abrasion resistances, which is used in floors where an antistatic surface (a surface that does not keep static electricity on the surface but conducts it to the ground) is desired.

Fields Of Application

- Operating rooms,
- Aircraft hangars,
- Places where chemicals with explosive or flammable characteristics are produced, stored and used,

- Places like data processing rooms where there are sensitive electronic equipments in order to protect them from static charges.

Features And Benefits

- Easy to apply.
- Displays perfect antistatic properties after it is completely cured.
- High mechanical and chemical resistances.
- Surface structure that does not allow the formation of microbes.
- Easily cleaned to create hygienic environments.

Technical Data

		Consumption ca.:
Primer	MasterTop P 617 Clear, EP, 2 component, non-solvented (total solid)	0.3 – 0.5 kg/m ²
Optional/ Scratch primer	MasterTop P 617 Filled 1: 0,5 with oven dried silica sand, size 0,1-0,3 mm	0.6 – 1.0 kg/m ²
Grounding	Copper strips (distance max. Between copper strips: 10m)	
Conductive primer	MasterTop P 687 W AS EP, 2 component, water borne, conductive, black primer for anti-static flooring	0.08 – 0.10 kg/m ²
Body coat	MasterTop BC 372 Pigmented, EP, 2 component, non-solvented (total solid), glossy	2.2 – 2.5 kg/m ²
Total thickness of The system		Ca. 1.5 – 2.5 mm

Remark: Should you exceed the re-coating interval or in case heavy mechanical loads, you have to broadcast sand at the surface of primer/scratch primer. Broadcasted surfaces have to be grinded only on the places where the conductive grounding will be stuck. Resistance to ground: 104-106 Ohm (EN 1081)
Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.
* Total consumption including sand.



MasterTop® 1273 AS-R

Description Of Product

MasterTop® 1273 AS-R, is an epoxy based, easily cleaned, hygienic floor coating system with rough non-slippery surface, high level of mechanical and chemical abrasion resistances, which is used in floors where an antistatic surface (a surface that does not keep static electricity on the surface but conducts it to the ground) is desired.

Fields Of Application

- Operating rooms,
- Aircraft hangars,
- Places where chemicals with explosive or flammable

- characteristics are produced, stored and used,
- Places like data processing rooms where.

Features And Benefits

- Easy to apply.
- Displays perfect antistatic properties after it is completely cured.
- High mechanical and chemical resistances.
- Surface structure that does not allow the formation of microbes.
- Easily cleaned to create hygienic environments.

Technical Data

		Consumption ca.:
Primer	MasterTop P 617 or P 621 Clear, EP, 2 component, non-solvented (total solid)	0.3 – 0.5 kg/m ²
Optional/ Scratch primer	MasterTop P 617 or P 621 Filled 1:0,5 with oven dried silica sand, size 0,1-0,3 mm	0.6 – 1.0 kg/m ²
Grounding	Copper strips (distance max. Between 2 copper strips: 10 m)	
Conductive primer	MasterTop P 687 WAS EP, 2 component, water borne, conductive, black primer for anti-static flooring	0.08 – 0.10 kg/m ²
Body coat	MasterTop BC 372 AS Pigmented, EP, 2 component, non-solvented (total solid), chemically resistant	0.9 – 1.3 kg/m ²
Sand broadcast	MasterTop F5AS or silicium carbide grain size 0,1-0,3 mm or 0,5-1,0 mm	2.5 – 3.0 kg/m ²
Top coat	MasterTop BC 372 Pigmented, EP, 2 component, non-solvented (total solid), chemically resistant, glossy	0.8 – 1.0 kg/m ²
Total thickness of The system		Ca. 2.0 – 2.5 mm

*Remark: Should you exceed the re-coating interval or in case heavy mechanical loads, you have to broadcast sand at the surface of primer/scratch primer. Broadcasted surfaces have to be grinded only on the places where the conductive grounding will be stuck.
Resistance to ground: 104-106 Ohm (EN 1081)
Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.
* Total consumption including sand.*



MasterTop® 1273 R

Description Of Product

MasterTop® 1273 R, is an epoxy based, easily cleaned, hygienic floor coating system with nonslippery rough surface and high mechanical, abrasion and chemical resistances, which is used for floors that are exposed to heavy mechanical and chemical effects, slopes and wet areas.

Fields Of Application

- Medium to heavy industrial wear
- On concrete and cement screeds
- Warehouses
- Production areas
- Laboratories
- Pharmaceutical and other medical or laboratory situations

- Supermarkets and shopping malls
- Aircraft hangars.
- Exhibition halls
- Carparks

Features And Benefits

- Exhibits excellent mechanical strength
- Low emissions: AgBB conform
- Extremely resistant if exposed to medium to heavy industrial wear
- Abrasion resistant
- Easy to apply
- Easy to clean and maintain
- Extremely resistant to water, sea and waste water, variety of alkalis, diluted acids, brine, mineral oils, lubricants and fuels.

Technical Data

		Consumption ca.:
Primer	MasterTop P 604 (or P 617) Yellowish, EP, 2 component, pre-filled	0.3 – 0.5 kg/m ²
Optional/ Sand broadcast*	Oven dried silica sand, size 0,3-0,8 mm, uniformly applied, not in excess	0.8 – 1.0 kg/m ²
Optional/ Scratch primer	MasterTop P 604 (or P 617) Filled 1: 0,5 up to 1:1 with oven dried silica sand, size 0,1-0,3 mm	0.6 – 2.0 kg/m ^{2**}
Optional/ Sand broadcast*	Oven dried silica sand, size 0,3-0,8 mm	2.0 – 3.0 kg/m ²
Body coat	MasterTop BC 372 Pigmented, EP, 2 component, low emission Filled up to 1:0,6 with oven dried silica sand, size 0,1-0,3 mm	0.9 – 1.2 kg/m ^{2**}
Sand broadcast	Oven dried silica sand, size 0,3-0,8 mm, uniformly applied, in excess	2.0 – 4.0 kg/m ²
Top coat	MasterTop BC 372 Pigmented, EP, 2 component, low emission	0.6 – 1.0 kg/m ²
Total thickness Of the system		Ca. 2.5 – 3.0 mm

Remark: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.

* MasterTop P 604 needs only to be broadcasted with silica sand if the re-coating intervals are not respected.

** Total consumption including sand. The consumption depends on the filling ratio and the roughness of the surface



MasterTop® 1273 S

Description Of Product

MasterTop® 1273 S, is an epoxy based, orange peel surfaced, easily cleaned, hygienic, thixotropic floor coating system used on floors which are exposed to medium-

Fields Of Application

- Light to medium industrial wear
- On concrete and cement screeds
- Warehouses
- Production and packaging areas
- Car parks
- Slopes
- Automotive industry and aircraft hangars
- Controlling rooms

Features And Benefits

- Low emissions: AgBB conform
- Extremely resistant if exposed to medium to heavy industrial wear
- Abrasion resistant
- Easy to apply
- Easy to clean and maintain
- Resistant to water, sea and waste water, variety of alkalis, diluted acids, brine, mineral oils, lubricants and fuels.

Technical Data

		Consumption ca.:
Primer	MasterTop P 604 (or P 617) Yellowish, EP, 2 component, pre-filled	0.3 – 0.5 kg/m ²
Sand Broadcast	Oven dried silica sand, size 0,3-0,8 mm, Uniformly applied, not in excess	0.8 – 1.0 kg/m ²
Scratch Primer	MasterTop P 604 (or P 617) Filled 1: 0,5 up to 1.1 with oven dried silica sand, Size 0,1-0,3 mm	0.6 – 1.5 kg/m ²
Top Coat	MasterTop BC 372 TIX Pigmented, EP, 2 component, low emission	0.7 – 0.8 kg/m ²
Total thickness of the system		1.5 – 2.0 mm

Remark: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.
* Total consumption including sand. The consumption depends on the filling ratio and the roughness of the surface.



MasterTop® 1324

Technical Data

		Consumption ca.:
Primer	MasterTop P 604 or P 617 (or P 615 without sand broadcasting) EP, 2 component, non-solvented (total solid)	0.3 – 0.5 kg/m ²
Sand broadcast	Oven dried silica sand, size 0,3-0,8 mm, uniformly applied, not in excess	0.8 – 1.0 kg/m ²
Optional/ Scratch primer	MasterTop P 604 or P 617 (or P 615 without sand broadcasting) Filled 1: 0,5 up to 1:1 with oven dried silica sand, size 0,1-0,3 mm	0.6 – 1.0 kg/m ²
Sand broadcast	Oven dried silica sand, size 0,3-0,8 mm	2.0 – 3.0 kg/m ²
Optional**/ Pore sealer	MasterTop BC 375 N pigmented, PU, 2-component, non-solvented, 1 : 0,3 filled with oven Dried silica sand, size 0,1-0,3 mm	.9 – 1.2 kg/m ²
Body coat	MasterTop BC 375 N pigmented, PU, 2-component, non-solvented, 1 : 0,3 filled with oven dried silica sand, size 0,1-0,3 mm	2.0 – 2.4 kg/m ²
Top coat	MasterTop TC 442W (pigmented) pigmented, PUR, 2 component, water-based, UV resistant, silk-mat	0.12 – 0.15 kg/m ²
Optional***/ Top coat If decorative chips Are broadcasted	MasterTop TC 442 W clear, PUR, 2 component, water-based, UV resistant, silk-mat	0.12 – 0.15 kg/m ²
Top thickness of the system		Ca. 2,0-3,0 mm

Remark: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.

* Consumption incl. filler

** Pore sealer is required on sand broadcasted, porous and absorbent surfaces

*** Clear top coats can not stop yellowing of the aromatic body coat. Aliphatic pigmented top coats are necessary



MasterTop® 1324 A

Description Of Product

MasterTop® 1324 A, is a polyurethane based, easily cleaned, hygienic floor coating system with a high resistance against mechanical and chemical effects, which is used over asphalt floors that are exposed to medium grade mechanical and chemical effects.

Fields Of Application

- Storehouses,
- Production areas,
- Laboratories,
- Chemistry and medicine industry,
- Shopping centers and supermarkets,
- Aircraft hangars,

- Exhibition and fair grounds,
- Garages.

Features And Benefits

- Easy to apply.
- High mechanical resistances.
- Surface structure that does not allow the formation of microbes.
- Easily cleaned to create hygienic environments.
- The capacity to cover up cracks.
- Semi-flexible.

Technical Data

		Consumption ca.:
Scratch primer	MasterTop® BC 375 N Pigmented, PU, 2-component, non-solvented 1:0,3 filled with oven dried silica sand, size 0,1-0,3 mm	0.5 – 1.0 kg/m ²
Body coat	MasterTop® BC 375 N Pigmented, PU, 2-component, non-solvented 1:0,3 filled with oven dried silica sand, size 0,1-0,3 mm	2.0 – 2.5 kg/m ² *
Top coat	MasterTop® TC 442 W pigmented Pigmented, PUR, 2 component, water-based, UV resistant, silk-mat	0.08 – 0.10 kg/m ²
Optional**/ Top coat if decorative chips Are broadcasted	MasterTop TC 442 W** clear, PUR, 2 component, water-based, UV resistant, silk-mat	0.10 – 0.15 kg/m ²
Total thickness of The System		Ca. 2.0 – 2.5 mm

Remark: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.

*Consumption incl. filler

** Clear top coats can not stop yellowing of the aromatic body coat. Aliphatic pigmented top coats are necessary



MasterTop® 1324 A-R

Description Of Product

MasterTop® 1324 A-R, is a polyurethane based, easily cleaned, hygienic floor coating system with non-slippery rough surface and a high resistance against mechanical and chemical effects, which is used over asphalt floors that are exposed to medium grade mechanical and chemical effects.

Fields Of Application

- Storehouses,
- Production areas,
- Laboratories,
- Chemistry and medicine industry,
- Shopping centers and supermarkets,

- Aircraft hangars,
- Exhibition and fair grounds,
- Garages.

Features And Benefits

- Easy to apply.
- High mechanical resistances.
- Surface structure that does not allow the formation of microbes.
- Easily cleaned to create hygienic environments.
- The capacity to cover up cracks.
- Semi-flexible.

Technical Data

		Consumption ca.:
Scratch primer	MasterTop® BC 375 N Pigmented, PU, 2-component, non-solvented. 1:0,3 filled with oven dried silica sand, size 0,1-0,3 mm	2.0 – 2.5 kg/m ^{2*}
War coat	MasterTop® BC 375 N Pigmented, PU, 2-component, non-solvented. 1:0,3 filled with oven dried silica sand, size 0,1-0,3 mm	1.5 – 2.0 kg/m ²
Sand broadcast	Oven dried silica sand, size 0,3-0,8 mm or 0,6- 1,2 mm.	0.8 – 1.0 kg/m ²
Top coat Option 1	MasterTop® BC 325 N ** Pigmented, PU, 2-component, non-solvented	0.5 – 0.9 kg/m ²
Top coat Option 2	MasterTop® TC 373 *** Pigmented, EP, 2-component, non-solvented. (total solid), glossy	0.5 – 0.9 kg/m ²
Top coat Option 3	MasterTop® TC 681*** Pigmented, polyaspartic, 2-component contains solvent, elastic, glossy, UV-stable	
Total thickness of the system		Ca. 2.0 – 3.0 mm

Remark: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.

* Consumption incl. filler

** Is not UV-stable

*** Do not meet the requirements of AgBB regarding emissions.



MasterTop® 1324 AS

Description Of Product

MasterTop® 1324 AS, is a polyurethane based, easily cleaned, hygienic, self leveling, smooth surfaced floor coating system, for medium-heavy pedestrian traffic, which is used in floors where an antistatic surface (a surface that does not keep the static electric on the surface but conducts it to the ground) is desired.

Fields Of Application

- Operation Rooms,

- Aircraft hangars,
- Places where chemicals with explosive or flammable characteristics are produced, stored and used,

Features And Benefits

- Easy to apply.
- High anti-static properties after the curing
- High mechanical and chemical resistance.
- Antimicrobial surface properties
- Easy to maintain and clean.
- Crack bridging properties

Technical Data

		Consumption ca.:
Primer	MasterTop P 617, Clear, EP, 2 component, non-solvented (total solid)	0.3 – 0.5 kg/m ²
Optional/ Scratch primer to 1 mm roughness	MasterTop P 617, Filled 1:0,5 with oven dried silica sand, size 0,1-0,3 mm	0.6 – 1.0 kg/m ²
Grounding	Distance max. 10m between copper strips (f. ex. With copper strips self-adhesive), copper strips must be earth copper cable (4 mm ²)	
Conductive Primer	MasterTop P 687 W AS Black, EP, 2-component, water borne	0.08 – 0.10 kg/m ²
Body coat	MasterTop BC 375 N AS ** PUR, 2-component, pigmented, non-solvented, low emission, antistatic	2.0 – 2.5 kg/m ²
Total thickness of the system		Ca. 2.0 – 3.0 mm

Remark: Should you exceed the re-coating interval or in case heavy mechanical loads, you have to broadcast sand at the surface of primer/scratch primer. Broadcasted surfaces have to be grinded only on the places where the conductive grounding will be stuck.

Resistance to ground: 104-106 Ohm (EN 1081)

Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.

* Total consumption including sand.



MasterTop® 1324 ESD

Description Of Product

MasterTop® 1324 ESD, is polyurethane based, antistatic, low emission, flooring system, with smooth coating, for industrial floors with low to medium loads, where some crack bridging properties and especial performance of Electro Static Discharge properties are desired

Features And Benefits

- Easy to apply.
- Perfect antistatic coating properties after fully cured.
- Has high mechanical and chemical resistance.
- Surface structure that does not allow the formation of microbes.
- Easily cleaned to create hygienic environments.

Fields Of Application

- Operation Rooms,
- Aircraft hangars,
- Places where electronic components are produced, stored and used

Technical Data

		Consumption ca.:
Primer	MasterTop P 617 Clear, EP, 2 component, non-solvented (total solid)	0.3 – 0.5 kg/m ²
Optional/ Scratch primer To 1 mm roughness	MasterTop P 617 Filled 1:0,5 with oven dried silica sand, size 0,1-0,3 mm	0.6 – 1.0 kg/m ^{2*}
Grounding	Distance max. 10m between copper strips (f. ex. With copper strips self-adhesive), copper strips must be earthed by a copper cable (4 mm ²)	
Conductive Primer	MasterTop P 687 W AS Black, EP, 2-component, water borne	0.08 – 0.10 kg/m ²
Body coat	MasterTop BC 375 N AS ** PUR, 2-component, pigmented, non-solvented, low emission, antistatic	2.0 – 2.5 kg/m ²
ESD Top coat	MasterTop TC 409 W ESD PUR, 2-component, pigmented, water borne, UV-resistant, matt	0.15 – 0.18 kg/m ²
Total thickness of the system		Ca. 2.0 – 3.0 mm

Note: Where re-coating interval will be exceeded or where heavy loads system the primer must be broadcasted. Before copper strips are glued, the sanded surface must be grinded in this area. As well as waste produced during application.

* Total including filler (sand)

Resistance to ground :104 – 106 Ohm (EN 1081)

Rg < 109 Ohm (Test procedure: IEC 61340-4-1)**

Walking-test :Body voltage < +/- 100 V (IEC 61340-4-5)**

Footwear/Person/Floor :Rg < 3.5 107 Ohm (Test procedure: IEC 61340-4-5)**



MasterTop® 1324 R

Description Of Product

MasterTop® 1324 R, is a polyurethane based, easily cleaned, hygienic floor coating system with non-slippery rough surface and a high resistance against mechanical and chemical effects, which is used for asphalt floors that are exposed to medium grade mechanical and chemical effects.

Fields Of Application

- Storehouses,
- Production areas,
- Laboratories,
- Chemistry and medicine industry,
- Shopping centers and supermarkets,

- Aircraft hangars,
- Exhibition and fair grounds,
- Garages.

Features And Benefits

- Easy to apply.
- High mechanical resistances.
- Surface structure that does not allow the formation of microbes.
- Easily cleaned to create hygienic environments.
- The capacity to cover up cracks.
- Semi-flexible

Technical Data

		Consumption ca.:
Primer	MasterTop P 617 (or P 615 without sand broadcasting) EP, 2 component, non-solvented (total solid)	0.3 – 0.5 kg/m ²
Sand broadcast	Oven dried silica sand, size 0,3-0,8 mm, uniformly applied, not in excess.	0.8 – 1.0 kg/m ²
Optional/ Scratch primer	MasterTop P 604 (or P 615 without sand broadcasting) Filled 1:0,5 up to 1:1 with oven dried silica sand, size 0,1-0,3 mm	0.6 – 1.0 kg/m ²
Sand broadcast	Oven dried silica sand, size 0,3-0,8 mm	2.0 – 3.0 kg/m ²
Wear coat	MasterTop BC 375 N Pigmented, PU, 2-component, non solvented, 1:0,3 filled with oven dried silica sand, size 0,1-0,3 mm	0.8 – 1.2 kg/m ² *
Sand broadcast	Oven dried silica sand, size 0,3-0,8 mm or 0,6-1,2 mm	1.5 – 2.0 kg/m ²
Top coat Option 1	MasterTop BC 375 N** Pigmented, PU, 2-component, non-solvented (total solid) + MasterTop TC 442 W Pigmented, PU, 2-component, water-based	0,8-1,0 kg/m ² 0,15-0,20 kg/m ²
Top coat Option 2**	MasterTop TC 373*** Pigmented, EP, 2-component, Non-solvented (total solid), glossy	0.5 – 0.9 kg/m ²
Top coat Option 3	MasterTop TC 681*** Pigmented, polyaspartic, 2-component, contains solvent, elastic, glossy, UV-resistant	0.5 – 0.9 kg/m ²
Total thickness of the system		Ca. 2.0 – 3.0 mm

Remark: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.

* Consumption incl. filler

** yellowing under UV light

*** Do not meet the requirements of AgBB regarding the emissions



MasterTop® 1325

Description Of Product

MasterTop® 1325, is a polyurethane based, cigarette burn resistant, sound absorbing, flexible, easily cleaned, hygienic, self leveling, matt surface floor coating system with the capacity to cover cracks and high abrasion resistance.

Fields Of Application

- Hospitals and Rest Homes,
- Schools,
- Libraries,
- Offices,
- Hotels,

- Exhibition Halls,
- Doctor Offices,
- Shopping Centers.

Features And Benefits

- Easy to apply.
- Has perfect adherence.
- Surface structure that does not allow the formation of microbes.
- Easily cleaned to create hygienic environments.
- A structure that can absorb sound (4 db depending on the thickness applied).
- Flexible

Technical Data

		Consumption ca.:
Primer	MasterTop P 617 (or P 615 without broadcast) EP, 2-component, non-solvented (total solid)	0.3 – 0.5 kg/m ²
Sand broadcast	Oven dried silica sand, size Ø 0,3-0,8 mm, uniformly applied, not in excess	0.8 – 1.0 kg/m ²
Optional/ Scratch primer Up to 1 mm	MasterTop P 617 (or P 615 without broadcast) EP, 2-component, non-solvented (total solid), 1:0,5 filled with oven dried silica sand, size Ø 0,1-0,3 mm	0.6 – 1.0 kg/m ²
Sand broadcast	Oven dried silica sand, size Ø 0,3-0,8 mm	2.0 – 3.0 kg/m ²
Optional/ Pore sealer**	MasterTop BC 325 N Pigmented, PU, 2-component, non-solvented, 1:0,3 filled with oven dried silica sand, size Ø 0,1-0,3 mm	0.8 – 1.0 kg/m ²
Body coat	MasterTop® BC 325 N Pigmented, PU, 2-component, non-solvented, 1:0,3 filled with oven dried silica sand, size Ø 0,1-0,3 mm	2.5 – 3.0 kg/m ²
Top coat/ Option 1 By light colours at Least two Applications are necessary	MasterTop TC 417 W (pigmented) Pigmented, PU, 2-component, water borne, non-solvented, low emission, bacteriostatic, UV-stable, matt	0.10 – 0.12 kg/m ²
	Additional transparent top coat if decorative chips are broadcasted in the pigmented top coat!	
Additional Top Coat if chips are Broad-casted	MasterTop TC 417 W Transparent, PU, 2-component, water borne, non-solvented, low emission, UV-stable, matt, bacteriostatic	0.10 – 0.12 kg/m ²
Total thickness of the system		Ca. 2.0 – 2.5 mm

Remark: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.

* Consumption incl. filler

** Pore sealer on sand broadcasted, porous and absorbent surfaces



MasterTop® 1326

Description Of Product

MasterTop® 1326, is a polyurethane based, Crack bridging, decorative, noise deadening and sound absorbing indoor floor where impact absorption, a large degree of comfort, design and high hygienic standard is required.

Fields Of Application

- Offices,
- Exhibitions and fair grounds,
- Shops,
- Hospitals,
- Schools,
- Cafeterias etc.

Features And Benefits

- Easy to apply.
- Has perfect adherence.
- Resistant against cigarette burns.
- Surface structure that does not allow the formation of microbes.
- Easily cleaned to create hygienic environments.
- Has structure that can absorb sound.
- Has crack bridging capacity.
- Flexible.

Technical Data

		Consumption ca.:
Primer	MasterTop P 617 (or P 615 without broadcast) EP, 2-component, non-solvented (total solid)	0.3 – 0.5 kg/m ²
Sand broadcast	Oven dried silica sand, size Ø 0,3-0,8 mm, uniformly applied, not in excess	0.8 – 1.0 kg/m ²
Optional/ Scratch primer Up to 1 mm	MasterTop P 617 (or P 615 without broadcast) EP, 2-component, non-solvented (total solid) 1:0,5 filled with oven dried silica sand, size Ø 0,1-0,3 mm	0.6 – 1.0 kg/m ²
Sand broadcast	Oven dried silica sand, size Ø 0,3-0,8 mm	2.0 – 3.0 kg/m ²
Body coat	MasterTop BC 361 N Pigmented, PU, 2-component, UV-stable, non-solvented, low emissio	2.5 – 3.0 kg/m ²
Top coat	MasterTop TC 417 W (transparent) Transparent, PU, 2-component, water borne, bacteriostatic, matt. UV-stable	0.10 – 0.12 kg/m ²
Total thickness of the system		Ca. 2.0 – 2.5 mm

Remark: Consumptions are indicative and may be higher, depending on substrate rounhness, temperature and porosity, as well as waste produced during application.

** Consumption incl. Filler*



MasterTop® 1326 R

Description Of Product

MasterTop® 1326 R, is polyurethane based, UV-stable, decorative indoor floor available in a range of brilliant colours for different decorative effects is required.

Fields Of Application

- Offices,
- Exhibitions and fair grounds,
- Shops,
- Hospitals,
- Schools,
- cafeterias etc.

Features And Benefits

- Easy to apply.
- Has perfect adherence.
- Resistant against cigarette burns.
- Surface structure that does not allow the formation of microbes.
- Easily cleaned to create hygienic environments.
- Has structure that can absorb sound.
- Has crack bridging capacity.
- Flexible.

Technical Data

		Consumption ca.:
Primer	MasterTop P 617 (or P 615 without broadcast) EP, 2-component, non-solvented (total solid)	0.3 – 0.5 kg/m ²
Sand broadcast	Oven dried silica sand, size Ø 0,3-0,8 mm, uniformly applied, not in excess	0.8 – 1.0 kg/m ²
Optional/ Scratch primer Up to 1 mm	MasterTop P 617 (or P 615 without broadcast) EP, 2-component, non-solvented (total solid) 1:0,5 filled with oven dried silica sand, size Ø 0,1-0,3 mm	0.6 – 1.0 kg/m ² *
Sand broadcast	Oven dried silica sand, size Ø 0,3-0,8 mm	2.0 – 3.0 kg/m ²
Body coat	MasterTop BC 361 N Pigmented, PU, 2-component, UV-stable, non-solvented, low emission	2.5 – 3.0 kg/m ²
Top coat	MasterTop TC 417 W (transparent) transparent, PU, 2-component, water borne, non-solvented, low emission, bacteriostatic, UV-stable, matt, slip resistant, filled with 3-5% glass beads Ø 40- 70 µm	0.12 – 0.14 kg/m ²
Total thickness of the system		Ca. 2.0 – 2.5 mm

Remark: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.
* Consumption incl. Filler



MasterTop® 1327 C

Description Of Product

MasterTop® 1327 C, is a polyurethane based, cigarette burn resistant, flexible, easily cleaned, hygienic, self-leveling, matt surface comfort coating system which can absorb sound and impact and also which has a capacity of crack bridging.

Fields Of Application

- Hospitals and Rest Homes,
- Schools,
- Offices,
- Hotels,
- Doctor Offices.

Features And Benefits

- Easy to apply.
- Has perfect adherence.
- Resistant against cigarette burns.
- Surface structure that does not allow the formation of microbes.
- Easily cleaned to create hygienic environments.
- Has structure that can absorb sound.
- Has crack bridging capacity.
- Flexible.

Technical Data

		Consumption ca.:
Primer	MasterTop P 615 EP, 2-component, non-solvented (total solid)	0.3 – 0.5 kg/m ²
Optional/ Scratch primer Up to 1 mm	MasterTop P 615 EP, 2-component, non-solvented (total solid) 1:0,5 filled with oven dried silica sand, size Ø 0,1-0,3 mm	0.6 – 1.0 kg/m ²
Massive elastic underlayment	MasterTop BC 327 FLR Massive, high elastic, pigmented, PU, 2 component, non-solvented	3.2 – 3.7 kg/m ²
Body coat	MasterTop BC 325 N Pigmented, PU, 2-component, non-solvented	2.5 – 3.0 kg/m ²
Top coat By light colours at Least two applications are necessary	MasterTop TC 417 W (pigmentli) Pigmented, PU, 2-component, water borne, non-solvented, UV-stable, bacteriostatic	0.10 – 0.12 kg/m ² Each application
Total thickness Of the system		Ca. 6.0 – 7.0 mm

Remark: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.
* Consumption incl. Filler



MasterTop® 1327 D

Description Of Product

MasterTop® 1327 D, is a polyurethane based, Crack bridging, decorative, noise deadening and sound absorbing indoor floor where impact absorption, a large degree of comfort, design and high hygienic standard is required.

Fields Of Application

- Health and care facilities,
- Hospitals,
- Houses for elderly people
- Offices,
- Hotels,
- Doctor Offices.

Features And Benefits

- Easy to apply.
- Has perfect adherence.
- Resistant against cigarette burns.
- Surface structure that does not allow the formation of microbes.
- Easily cleaned to create hygienic environments.
- Has structure that can absorb sound.
- Has crack bridging capacity.
- Flexible.

Technical Data

		Consumption ca.:
Primer	MasterTop P 615 EP, 2-component, non-solvented (total solid)	0.3 – 0.5 kg/m ²
Optional/ Scratch primer Up to 1 mm	MasterTop P 615 EP, 2-component, non-solvented (total solid) 1:0,5 filled with oven dried silica sand, size Ø 0,1-0,3 mm	0.6 – 1.0 kg/m ²
Massive elastic underlayment	MasterTop BC 327 FLR Massive, high elastic, pigmented, PU, 2 component, non-solvented	3.2 – 3.7 kg/m ²
Body coat	MasterTop BC 325 N Pigmented, PU, 2-component, non-solvented,	2.5 – 3.0 kg/m ²
Top coat**/***	MasterTop TC 417 W transparent) Transparent, PU. 2-component, bacteriostatic, water borne, non-solvented, UV-stanble, matt	0.10 – 0.12 kg/m ²
Total thickness Of the system		Ca. 6.0 – 7.0 mm

Remark: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.

* Consumption incl. filler

** MasterTop TC 417W exhibits bacteriostatic properties according to ISO 22196:2007.

*** Possibility to fill MasterTop TC 417W with 3-5% glass beads of 40-70 µm (or 53-106 µm) if a slip resistant surface is required.



MasterTop® 1700/10/30

Description Of Product

MasterTop® 1700/10/30, is multicomponent, water based, suitable for medium to heavy traffic, can be applied ,5 -1,5 mm thick vapour permeable epoxy coating.

- Matt finish
- Good slip resistance
- Vapour permeability
- Good bonding

Fields Of Application

- Automotive industry.
- Aircraft Maintenance Hangars
- Warehouses
- Pharma Industry
- Laboratories and hospitals
- NPP
- As a primer of cementitious coatings

Features And Benefits

- Easy to apply
- Suitable for wet areas
- Easy to clean

Consumption

Purpose of Usage	Product	Consumption
Primer	MasterTop 1700 A+B	0,25-0,35 kg/m²
Coating	MasterTop 1700 A+B MasterTop 1710 C	1,50-1,60 kg/m²
Top Coat	MasterTop TC 485W	0,30-0,50 kg/m²

Packaging

24,6Kg Set

MasterTop® 1700 PTA: 3,11kg

MasterTop® 1700 PTB: 8,18 kg

MasterTop® 1710 PTC: 13,31 kg

Technical Data

MasterTop® 1700 PTA MasterTop® 1700 PTB MasterTop® 1710 PTC	Epoxy Resin Hardener Filler	
Colour	RAL Colours	
Mixed Density	kg/litre	1,35
Pull Off Test	N/mm²	>1,50
Water Vapor Permeability	DIN 52615	20,000
Abrasion Resistance (Taber CS17 / 1000rpm)	mg	110-130
Substrate Temperature	°C	+5 / +35
Service Temperature	°C	-20 / +60
Pot Life	+10°C +20°C +30°C	45 minutes 25 minutes 20 minutes



MasterTop® BC 325 N

Description Of Product

MasterTop® BC 325 N, is a two component, non-solvented and low emission, self-levelling floor coating which cures to a soft and elastic material with a hard wearing, easy to maintain surface and a tolerance to a wide range of cleaners and mild chemicals. Once coated with the recommended MasterTop top coat.

MasterTop® BC 325 N is supplied ready for use but can be further extended (except for REG systems) with oven dried silica sand, 0.1 – 0.3 mm, at a ratio of 100 parts by weight **MasterTop® BC 325 N** to 30 parts by weight sand.

The floor coating must be coated with a pigmented top coat (i.e. **MasterTop® TC 465** or **MasterTop® TC 407W** pig-mented) to avoid a yellowness.

Fields Of Application

MasterTop® BC 325 N, is used as a body coat and forms the basis of the comfort series of floor coating systems **MasterTop® 1325** and **MasterTop® 1325 REG** which find use in applications such as:

- Hospitals and elderly people homes
- Schools
- Libraries
- Offices
- Cafeterias and canteens
- Shops and supermarkets

Features And Benefits

- Low emission according to AgBB
- Soft, elastic
- High degree of walking comfort
- Sound absorbing
- Hard wearing
- Crack bridging
- Easy to apply
- Excellent self-levelling properties
- Can be applied to asphalt and other substrates
- Yellowing, when used in UV-exposed areas, does not impair the technical properties of the body coat (the application of a pigmented top coat like **MasterTop® TC 417WP** is recommended to prevent the yellowing of the surface and to improve the scratch resistance)

Consumption

ca. 2,0 – 3,5 kg/m²

For further information please refer to the systems **MasterTop® 1325** and **MasterTop® 1325 REG**.

Packaging

MasterTop® BC 325 N is supplied in 30 kg working packs.

Technical Data

	Mix ratio	by weight	3.5:1
Density			
Part A	at 23°C	g/cm ³	1,32
Part B	at 23°C	g/cm ³	1,22
Mixed	at 23°C	g/cm ³	1,29
Viscosity			
Part A	at 23°C	mPa.s	Ca. 5400
Part B	at 23°C	mPa.s	200-360
Mixed	at 23°C	mPa.s	Ca. 1800
Pot-life	at 23°C	min	30
Re-coating interval/ready for traffic	at 23°C	h d	min 12 max. 2
Fully cured/ready for exposure to chemicals	at 23°C	d	7
Substrate and application temperatures	at 23°C	0°C 0°C	min. 8 max. 30
Max. permissible relative humidity	at 10 °C at T° >23 °C	% %	75 85
Technical data cured material*			
Shore-A hardness after 7 days			79
Tensile strength	DIN 51504	N/mm ²	7,0
Elongation	DIN 53504	%	150

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® BC 327 FLR

Description Of Product

MasterTop® BC 327 FLR, is a two component, non-solvented and low emission (AgBB compliancy in system), self-levelling floor underlayment which cures to a soft and elastic material.

The floor coating must be coated with the body coat **MasterTop® BC 325N** and top coated with **MasterTop® TC 417W** pigmented to avoid yellowness. The cured system exhibits excellent chemical and mechanical resistances.

Fields Of Application

MasterTop® BC 327 FLR, used as massive elastic under- layment forms the basis of the walking comfort floor coating system **MasterTop® 1327** (please refer to the system data sheet too) which finds use in applications such as:

- Hospitals and elderly people homes
- Schools
- Libraries
- Offices
- Cafeterias and canteens

- Shops and supermarkets

Features And Benefits

- Low emission according to AgBB scheme
- Soft, elastic
- High degree of walking comfort
- Sound absorbing (12 dB)
- Crack bridging
- Easy to apply
- Excellent self-levelling properties
- Can be applied to asphalt and other
- Substrates thanks to the use of the appropriate primer

Consumption

ca. 3,2 – 3,7 kg/m²

For further information please refer to the systems **MasterTop® 1327**.

Packaging

MasterTop® BC 327 FLR is supplied in 25 kg working packs.

Technical Data

	Mix ratio	by weight	4.5:1
Density			
Part A	at 23°C	g/cm ³	0,85
Part B	at 23°C	g/cm ³	1,22
Mixed	at 23°C	g/cm ³	0,97
Viscosity			
Part A	at 23°C	mPa.s	1600
Part B	at 23°C	mPa.s	270
Mixed	at 23°C	mPa.s	8700
Pot-life	at 23°C	min	50
Re-coating interval/ready for traffic	at 23°C	h d	min 15 max. 2
Fully cured/ready for exposure to chemicals	at 23°C	d	7
Substrate and application temperatures	at 23°C	0°C 0°C	min 8 max. 30
Max. permissible relative humidity	At any T°	%	7,0
Technical data cured material*			
Shore-A hardness after 7 days			63
Tensile strength	DIN 51504	N/mm ²	1,7
Elongation	DIN 53504	%	80

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® BC 361 N

Description Of Product

MasterTop® BC 361 N, is a colour stable, low emission self-levelling and non-solvented floor coating based on an aliphatic polyurethane. It is hard wearing and has an easy to maintain surface with a tolerance to a wide range of chemicals. Because of its aliphatic nature, **MasterTop® BC 361 N** is UV and colour stable. It can be used wet in wet to produce multi-coloured decorative floors. It will be coated with a colourless top-coat (for example **MasterTop® TC 407W**) in order to improve the scratch, chemical and mechanical resistance and to remain easy to clean.

Fields Of Application

MasterTop® BC 361 N, forms the basis of the **MasterTop® 1326** series of decorative floor coating systems which find use in applications such as:

- Boutiques and shops
- Schools and kindergarten
- Bars and restaurants
- Reception areas
- Offices
- Hospitals and elderly people homes
- Balconies

Features And Benefits

- Low emission (AgBB)
- UV- and colour stable
- Elastic, soft
- High degree of walking comfort
- Sound absorbing
- Crack bridging
- Robust
- Easy to apply
- Excellent self-levelling properties

Consumption

At least 2,5 kg/m²

For further information please refer to the relevant flooring system build-up

Packaging

MasterTop® BC 361 N is supplied in 13 kg and 26 kg working packs.

Technical Data

	Mix ratio	by weight	100:30
Density			
Part A	at 23°C	g/cm ³	1,42
Part B	at 23°C	g/cm ³	1,13
Mixed	at 23°C	g/cm ³	1,34
Viscosity			
Part A	at 23°C	mPa.s	7000
Part B	at 23°C	mPa.s	2500
Mixed	at 23°C	mPa.s	4240
Pot-life	at 23°C	min	50
Re-coating interval/ready for traffic	at 23°C	h d	min 15 max. 2
Fully cured/ready for exposure to chemicals	at 23°C	d	7
Substrate and application temperatures	at 23°C	0°C 0°C	min 10 max. 30
Max. permissible relative humidity	At any T°	%	7,0
Technical data cured material*			
Shore-A hardness after 7 days			85
Tensile strength	DIN 53504	N/mm ²	9,3
Elongation	DIN 53504	%	75

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® BC 372

Description Of Product

MasterTop® BC 372, is a non-solvented, pre-filled and pigmented, two-component, self-levelling epoxy coating.

Fields Of Application

MasterTop® BC 372, ois applied indoors as a self-levelling coating and suitable for medium to heavy industrial wear. **MasterTop® BC 372** is applied to substrates such as concrete and cement screeds. **MasterTop® BC 372** can be filled with sand up to 1 : 0.7 by weight depending on the temperature and the applying thickness you require on the job site. It is use in the system **MasterTop® 1273, MasterTop® 1273 R and MasterTop® 1273 E**.

Features And Benefits

- Exhibits excellent mechanical strength
- Application as self-levelling body coat on smooth surfaces and as top coat on broadcasted surfaces
- Low emissions: AgBB conform
- Extremely resistant if exposed for medium to heavy industrial wear
- Abrasion resistant
- Easy to apply
- Easy to clean and maintain
- Can be thickened by adding the thickening agent **MasterTop® TIX 9** (1,8 % based on the total quantity of part A)
- Extremely resistant to water, sea and waste water, as well as resistant to a variety of alkalis, diluted

acids, brine, mineral oils, lubricants and fuels.

- Yellowing, when used in UV-exposed areas, does not impair the technical properties of the body coat (the application of a pigmented top coat like **MasterTop® TC 442WP** is recommended to prevent the yellowing of the surface and to improve the scratch resistance)

Consumption

As self-levelling body coat on smooth surfaces: ca. 3,3 – 3,7 kg/m² depending on the filling ratio (total consumption including sand, filling ratio between 1:0,5 and 1:0,7 with quartz sand 0,1-0,3 mm).

As top coat on broadcasted surfaces: ca. 0,8 – 1,2 kg/m² (application with a roll without sand filling) depending on the system and the roughness of the surface.

For more information, please refer to the System Data Sheets **MasterTop® 1273, MasterTop® 1273 R and MasterTop® 1273 E**.

Packaging

MasterTop® BC 372 is supplied in 30 kg working packs. Supply in drums possible (only on demand).

30 kg set
Part A: 25,5 kg
Part B: 4,5 kg

Technical Data

	Mix ratio	by weight	100:18
Density			
Part A	at 23°C	g/cm ³	1,72
Part B	at 23°C	g/cm ³	1,02
Mixed	at 23°C	g/cm ³	1,60
Viscosity			
Part A	at 23°C	mPa.s	5600
Part B	at 23°C	mPa.s	150
Mixed	at 23°C	mPa.s	1850
Pot-life	at 23°C	min	30
Re-coating interval/ready for traffic			
	at 10°C	h	Min 30
	at 23°C	d	Max. 3
		h	Min. 10
		d	Max. 2
Fully cured/ready for exposure to chemicals	at 20°C	d	5
Substrate and application temperatures	at 23°C	0°C	min 10
		0°C	max. 30
Max. permissible relative humidity	At any T°	%	75
Technical data cured material*			
Shore-A hardness after 7 days			81
Taber abrasion after 28 days at 23°C	CS 10, 1KG, 1000U	mg	28
Fire classification according to ÖNORM EN 13501-1	Consumption: 200 g/m ²		A2fl-s1
Compressive strength	EN 12190	N/mm ²	79

The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® BC 372 AS

Description Of Product

MasterTop® BC 372 AS, is a non-solvented (total solid), pre-filled and pigmented, two-component, self-levelling and anti-static epoxy coating.

Fields Of Application

MasterTop® BC 372 AS, is for indoor use where an anti-static floor coating is required. **MasterTop® BC 372 AS** is suitable for applications to mineral substrates such as concrete or cement mortar screeds, primed with **MasterTop® P 687W AS** (conductive primer). **MasterTop® BC 372 AS** resists medium to heavy industrial traffic

Features And Benefits

- Conductive floor coating
- Exhibits excellent mechanical strength and anti-static properties
- Abrasion resistant
- Easy to apply
- Easy to clean and maintain
- Extremely resistant to water, sea and waste water, as well as resistant to a variety of alkalis, diluted

acids, brine, mineral oils, lubricants and fuels.

- Yellowing, when used in UV-exposed areas, does not impair the technical properties of the body coat.

Consumption

2.3 – 2.6 kg/m² according to system, refer to System Data Sheets **MasterTop® 1273 AS**

Packaging

MasterTop® BC 372 AS, is supplied in 29.9 kg working packs.

Note: Please note that the part A of **MasterTop® BC 372 AS** is the same as **MasterTop® BC 372** part A. The conductive fibres are included in Part B.

Technical Data

		Mix ratio	by weight.	100 : 17
Density	Part A	at 23°C	g/cm ³	1,70
	Part B	at 23°C	g/cm ³	1,01
	Mixed	at 23°C	g/cm ³	1,54
Viscosity	Part A	at 23°C	mPa.s	5600
	Part B	at 23°C	mPa.s	510
	Mixed	at 23°C	mPa.s	2200
Pot-life		at 23°C	min.	30
Re-coating interval/ready for traffic		at 20°C	h d	min. 15 max. 2
Fully cured/ready for exposure to chemicals		at 20°C	d	5
Substrate and application temperatures			°C °C	min. 10 max. 30
Max. permissible relative humidity		at any T°C	%	75
Technical data cured material*				
Shore-A hardness after 7 days				80
Taber abrasion after 28 days at 23°C		CS 10, 1KG, 1000U	mg	50
Resistivity (Resistance to ground)		EN 1081	Ohm	10 ⁴ -10 ⁶

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® BC 372 TIX

Description Of Product

MasterTop® BC 372 TIX, A two component, non-solvented (total solid), thixotropic, epoxy floor coating with low emissions (AgBB conformity).

Fields Of Application

MasterTop® BC 372 TIX, is applied indoors as a thixotropic coating in system build-up **MasterTop® 1273 S** which is suitable for light to medium duty industrial environment. **MasterTop® BC 372 TIX** is applied to substrates such as concrete and cement screeds.

Features And Benefits

- Exhibits excellent mechanical strength
- Low emissions: AgBB, Afsset conform
- Abrasion resistant
- Easy to apply
- Easy to clean and maintain despite the structured surface
- Extremely resistant to water, sea and waste water, as well as resistant to a variety of alkalis, diluted acids, brine, mineral oils, lubricants and fuels.

- Yellowing, when used in UV-exposed areas, does not impair the technical properties of the body coat.

Consumption

ca. 0,7 – 0,8 kg/m² depending on the roughness of the surface.

For more information, please refer to the System Data Sheet **MasterTop® 1273 S**.

Packaging

MasterTop® BC 372 TIX is supplied in 31 kg working packs. Supply in drums possible (only on demand).

Technical Data

		Mix ratio	by weight.	100 : 17
Density	Part A	at 23°C	g/cm ³	1,71
	Part B	at 23°C	g/cm ³	1,02
	Mixed	at 23°C	g/cm ³	1,60
Viscosity	Part A	at 23°C	mPa.s	thixotropic
	Part B	at 23°C	mPa.s	150
	Mixed	at 23°C	mPa.s	6000
Pot-life		at 23°C	min.	30
Re-coating interval/ready for traffic			h	Min. 30
		at 10°C	d	Max. 3
		at 23°C	h	Min. 10
			d	Max. 2
Fully cured/ready for exposure to chemicals		at 20°C	d	5
Substrate and application temperatures			°C	min. 10
			°C	max. 30
Max. permissible relative humidity		at any T°C	%	75
Technical data cured material*				
Shore-A hardness after 7 days				70
Fire classification according to ÖNORM EN 13501-1 (Consumption: 200 g/m ²)				D-s1
Taber abrasion after 28 days at 23°C	CS 10, 1KG, 1000U		mg	28

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® BC 372 TIX AS

Description Of Product

MasterTop® BC 372 TIX AS, is a non-solvented (total solid), pre-filled and pigmented, two-component, thixotropic and anti-static epoxy coating.

Fields Of Application

MasterTop® BC 372 TIX AS, is for indoor use where an anti-static floor coating is required. **MasterTop® BC 372 TIX AS** is suitable for applications to mineral substrates such as concrete or cement mortar screeds, primed with **MasterTop P 687W AS** (conductive primer). **MasterTop® BC 372 TIX AS** resists light to medium industrial traffic

Features And Benefits

- Conductive floor coating
- Exhibits excellent mechanical strength and anti-static Properties
- Abrasion resistant
- Easy to apply
- Easy to clean and maintain
- Extremely resistant to water, sea and waste water, as well as resistant to a variety of alkalis, diluted acids,

brine, mineral oils, lubricants and fuels.

- Yellowing, when used in UV-exposed areas, does not impair the technical properties of the body coat.

Consumption

0.8 – 0.95 kg/m² according to system, refer to System Data Sheets **MasterTop 1273 S-AS**.

Packaging

MasterTop® BC 372 TIX AS is supplied in 30.9 kg working packs.

Note: Please note that the part B of **MasterTop® BC 372 TIX AS** is the same as **MasterTop BC 372AS** part B. The conductive fibres are included in Part B.

Technical Data

Mix ratio			by weight.	100 : 17
Density	Part A	at 23°C	g/cm ³	1,71
	Part B	at 23°C	g/cm ³	1,02
	Mixed	at 23°C	g/cm ³	1,60
Viscosity	Part A	at 23°C	mPa.s	thixotropic
	Part B	at 23°C	mPa.s	550
	Mixed	at 23°C	mPa.s	6000
Pot-life		at 23°C	min.	30
Re-coating interval/ready for traffic		at 20°C	h d	Min. 15 Max. 2
Fully cured/ready for exposure to chemicals		at 20°C	d	5
Substrate and application temperatures			°C	min. 10
			°C	max. 30
Max. permissible relative humidity		at any T°C	%	75
Technical data cured material*				
Shore-A hardness after 28 days				70
Resistivity (Resistance to ground)		EN 1081	Ohm	10 ⁴ - 10 ⁶

* The above figures are intended as a guide only and should not be used as a basis for specifications



MasterTop® BC 375 N

Description Of Product

MasterTop® BC 375 N, is a non-solvented, low emission, pre-filled, 2K-self-levelling polyurethane floor coating.

Fields Of Application

MasterTop® BC 375 N, is used indoors where medium to heavy traffic is required. **MasterTop® BC 375 N** is suitable for applications to mineral substrates such as concrete or cement mortar floor screeds, which have been primed with a 2K-EP primer. **MasterTop® BC 375 N** can also be applied to bituminous substrates with special primers like **MasterTop® P 660** or **MasterTop® BC 375 N**. It is part of system **MasterTop® 1324, MasterTop® 1324 AB, MasterTop® 1324 A, MasterTop® 1324 N&B and MasterTop® 1324 R**. **MasterTop® BC 375 N** fits to the low emission of AgBBstandard.

Features And Benefits

- Low emission according to AgBB
- Excellent self-levelling properties
- Excellent mechanical properties
- Abrasion resistant
- Hard wearing

- Excellent de-aeration
- Easy to clean and maintain
- Statical crack bridging
- Good chemical resistance
- Yellowing, when used in UV-exposed areas, does not impair the technical properties of the body coat (the application of a pigmented top coat like **MasterTop® TC 442 W P** is recommended to prevent the yellowing of the surface and to improve the scratch resistance

Consumption

ca. 2,0 – 2,5 kg/m²

Please refer to the system build-ups **MasterTop® 1324, 1324 A, 1324 NB, 1324 AB and MasterTop® 1324 R**.

Packaging

MasterTop® BC 375 N is supplied in 30 kg working packs.

Technical Data

Mix ratio			by weight.	100:22
Density	Part A	at 23°C	g/cm ³	1,54
	Part B	at 23°C	g/cm ³	1,22
	Mixed	at 23°C	g/cm ³	1,45
Viscosity	Part A	at 23°C	mPa.s	Ca. 5400
	Part B	at 23°C	mPa.s	80-120
	Mixed	at 23°C	mPa.s	Ca. 2200
Pot-life		at 23°C	min.	30
Re-coating interval/ready for traffic		at 23°C	h d	Min. 12 Max. 3
Fully cured/ready for exposure to chemicals		at 23°C	d	7
Substrate and application temperatures			°C	min. 50
			°C	max. 30
Max. permissible relative humidity			%	75
Technical data cured material*				
Shore-D hardness after 28 days				70
Elongation at break	DIN 51504		%	10

* The above figures are intended as a guide only and should not be used as a basis for specifications



MasterTop® BC 375 N AS

Description Of Product

MasterTop® BC 375 N AS, is an anti-static, non-solvented, low emission, pre-filled, 2K-self-levelling polyurethane floor coating.

Fields Of Application

MasterTop® BC 375 N AS, is used indoor when an anti-static floor coating for light to medium traffic is required. **MasterTop® BC 375 N AS** is suitable for applications to mineral substrates such as concrete or cement mortar floor screeds, which have been primed with a 2K-EP primer, laid with copper strips and primed with the conductive primer **MasterTop® P 687 WAS**. **MasterTop® BC 375 N AS** can also be applied to bituminous substrates with special primers like **MasterTop® P 660** or **MasterTop® BC 375N**. It is part of system **MasterTop® 1324 ESD** for ESD requirements according to EN 61340-5-1 or in the system **MasterTop® 1324 AS** according to EN 1081. **MasterTop® BC 375 N AS** fits to the low emission of AgBB standard.

Features And Benefits

- Low emission according to AgBB
- Conductive floor coating

- Exhibits excellent mechanical and
- Anti-static properties
- Good abrasion resistance
- Easy to clean and maintain
- Low emission (AgBB)
- Static crack bridging properties
- Yellowing, when used in UV-exposed areas, does not impair the technical properties of the body coat

Coverage

ca. 2,0 – 2,5 kg/m²

Please note the systems **MasterTop® 1324 AS** and **MasterTop® 1324 ESD**.

The consumption may not be below or over the above value to ensure the conductivity. If necessary the substrate must be pre-levelled.

Packaging

MasterTop® BC 375 N AS is supplied in 30 kg working packs.

Note: Please note that the part A of **MasterTop® BC 375 NAS** is the same as **MasterTop® BC 375 N** part A. The conductive fibres are included in Part B.

Technical Data

Mix ratio			by weight.	100:22
Density	Part A	at 23°C	g/cm ³	1,51
	Part B	at 23°C	g/cm ³	1,22
	Mixed	at 23°C	g/cm ³	1,45
Viscosity	Part A	at 23°C	mPa.s	Ca. 5400
	Part B	at 23°C	mPa.s	Ca. 1700
	Mixed	at 23°C	mPa.s	Ca. 3000
Pot-life		at 23°C	min.	30
Re-coating interval/ready for traffic		at 23°C	h	Min. 16
			d	Max. 3
Fully cured/ready for exposure to chemicals		at 23°C	d	7
Substrate and application temperatures at 23°C			°C	min. 50
			°C	max. 30
Max. permissible relative humidity			%	75
Technical data cured material*				
Shore-D hardness after 28 days				70
Resistivity to ground with MasterTop TC 409WESD	EN 1081 EN 61340-5-1 EN 61340-4-5		Ohm	10 ³ -10 ⁶
			Ohm	<109
			V	<100

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® BC 378

Description Of Product

MasterTop® BC 378, is a non-solvented, two component epoxy resin based coating with high resistance to chemicals. MasterTop® BC 378 fulfills the requirements of the German regulations for the protection of ground water (WHG, Wasserhaushaltsgesetz) for LAU plants.

- Extremely resistant to water, sea and waste water, as well as resistant to a variety of alkalis, diluted acids, brine, mineral oils, lubricants and fuels.
- Yellowing, when used in UV-exposed areas, does not impair the technical properties of the body coat

Fields Of Application

MasterTop® BC 378, is designed for indoor use as coating for medium duty industrial floors in areas where ground water contaminating chemicals are produced, handled, be stored and applied and in secondary containment applications. It is used in the system MasterTop® 1278.

Consumption

min. 2.5 kg/m² according to system, refer to System Data Sheets MasterTop® 1278

Packaging

MasterTop® BC 378 is supplied in 30 kg working packs.

Features And Benefits

- High resistance to chemicals
- Exhibits excellent mechanical strength
- Abrasion resistant
- Static crack bridging
- Good adhesion to non-porous substrates
- Easy to clean and maintain
- Easy to apply

Technical Data

Mix ratio			by weight.	4:1
Density	Part A	at 20°C	g/cm ³	1,80
	Part B	at 20°C	g/cm ³	1,06
	Mixed	at 20°C	g/cm ³	1,55
Viscosity	Part A	at 23°C	mPa.s	5900
	Part B	at 23°C	mPa.s	2500
	Mixed	at 23°C	mPa.s	2800
Pot-life		at 23°C	min.	15
Re-coating interval/ready for traffic			h	Min. 12
		at 10°C	d	Max. 3
		at 23°C	h	Min. 6
		at 30°C	d	Max. 2
			h	Min. 3
			d	Max. 1
Fully cured/ready for exposure to chemicals		at 20°C	d	7
Substrate and application temperatures			°C	min. 8
			°C	max. 30
Max. permissible relative humidity		at any T°C	%	80
Technical data cured material*				
Shore-D hardness after 28 days				65

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® BC 385 DTZ

Description Of Product

MasterTop® BC 385 DTZ, is a two components, solvent free, UV resistant, clear, epoxy based coating.

Fields Of Application

- Forms the basis of the floor coating system.
- Chemistry and Pharmaceutical industries
- Shopping centers
- Airports
- Shops and restaurants
- Hospitals
- As a base coat MasterTop® DTZ system

Features And Benefits

- Easy to apply

- High wear resistance
- High abrasion resistance
- High mechanical resistance
- UV resistant
- Clear
- Easy to clean and maintain
- Hygienic
- Excellent adhesive strength
- Resistant to chemicals and solvents

Packaging

MasterTop® BC 385 DTZ, is supplied 17.4 KG working packs.

Technical Data

Mixing Ratio			by weight	100: 45
Density	Part A Part B Mixed	at 23°C at 23°C at 23°C	g/cm ³ g/cm ³ g/cm ³	-
Viscosity	Part A Part B Mixed	at 23°C at 23°C at 23°C	mPa.s mPa.s mPa.s	-
Pot Life		at 23°C	min.	15
Re-coating interval/ready for traffic		at 10°C	h d	Min. Maks.
		at 23°C	h d	Min. Maks.
Fully cured/ready for exposure to chemicals		at 20°C	days	-
Substrate and application temperatures			°C	min.
			°C	maks.
Max. permissible relative humidity		at any T°C	%	-

*The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® DAP

Description Of Product

MasterTop® DAP, is High decorative image-based flooring system, smooth, matt finish.

- Schools,
- Kinder gardens

Fields Of Application

- Offices,
- Exhibitions and fair grounds,
- Shops,
- Hospitals,

Features And Benefits

- Easy to apply.
- UV resistance
- Decorative

		Consumption ca.
 Primer	MasterTop® P 604 (or P 617) Yellowish, EP, 2 component, pre-filled	0.30 – 0.5 kg/m ²
Optional/ Sand broadcast	Oven dried silica sand, size 0,3-0,8 mm, uniformly applied, not in excess	0.80 – 1.0 kg/m ²
 Optional/ Scratch broadcast	MasterTop® P 604 (or P 617) Filled 1:0,5 up to 1.1 with oven dried silica sand, size 0,1-0,3 mm	0.6 – 2,0 kg/m ²
 Body coat	MasterTop BC 372** Pigmented, EP, 2 component, low emission.	2.0 – 2,5 kg/m ²
 Image	Decorative Art Picture Self-adhesive picture/poster, pre-printed	1,0 kg/m ²
 Encapsulating Layer	MasterTop BC 308** Colourless, EP, 2 component, non-solvented, glossy	2.2 – 2.6 kg/m ²
 Top coat	MasterTop TC 442W (transparent) Colourless, PU, 2-component, water borne, non-solvented, UV-stable, matt	0.12 – 0.15 kg/m ²
Total thickness Of the system		Ca. 4.0 – 6,0 mm

Remark: Consumptions are indicative and may be higher, depending on substrate roughness, temperature and porosity, as well as waste produced during application.

* Total consumption including sand

** Before, during and after application the material should be stored, used and allowed to cure at a minimum 180C!



MasterTop® P 604

Description Of Product

MasterTop® P 604, is a total solid, pre-filled, low viscosity, two component epoxy resin based primer.

- Pre-filled
- Low emission in system

Fields Of Application

MasterTop® P 604, is designed for use indoor as a pore sealer primer or scratch coat on mineral substrates such as concrete or cementitious screed. You can use it as scratch primer by adding oven dried silica sand in a proportion of 1 : 0,5 till 1 : 0,8. **MasterTop® P 604**, was tested regarding emissions in **MasterTop® 1273** system and fulfills the AgBB requirement. Moreover **MasterTop® P 604**, is a total solid primer according to the standard of the “Deutsche Bauchemie” and fulfills the requirements of standard DIN EN 13578 regarding compatibility on wet concrete.

Features And Benefits

- Low viscosity
- Easy to apply
- Good penetration
- Seals pores and capillaries
- Excellent bond to substrate

Consumption

The consumption of **MasterTop® P 604** as primer is between 0.3 – 0.8 kg/m² depending on filling grad, condition and porosity of the substrate. A second coat of 0.2 – 0.4 kg/m² of **MasterTop® P 604**, is recommended for very porous substrates and improves the protection against rising damp.

Oven dried silica sand 0.3 – 0.8 mm should be broadcast at approximately 1.0 kg/m² not in excess into the still wet primer.

The above consumption figures are intended as a guide only and may be higher on very rough or porous substrates.

Packaging

MasterTop® P 604, is supplied in 30 kg working packs and in 247 kg drums of Part A and in 200 kg drums of Part B

Technical Data

Mixing Ratio		by weight		100: 12
Density	Part A	at 23°C	g/cm ³	1,62
	Part B	at 23°C	g/cm ³	1,02
	Mixed	at 23°C	g/cm ³	1,44
Viscosity	Part A	at 23°C	mPa.s	9500
	Part B	at 23°C	mPa.s	800
	Mixed	at 23°C	mPa.s	1400
Pot Life (30 kg unit)		at 12°C	min.	60
		at 20°C	min.	30
		at 30°C	min.	15
Re-coating interval		at 10°C	Hour	Min. 16
		at 23°C	Hour	Max. 48
		at 30°C	Hour	Min.6
			Hour	Max. 48
			Hour	Min. 3
Fully cured		at 10°C	d	5
		at 23°C		3
		at 30°C		2
Permissible substrate and ambient temperatures			°C	Min. 8
			°C	Max. 30
Permissible relative humidity max.		at 10°C	%	75
		at > 23°C	%	85
Technical data cured material*				
Shore D hardness after 7 days				79
Compressive strength		after 28 days	N/mm ²	55
Tensile strength		after 7 days	N/mm ²	10

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® P 609

Description Of Product

MasterTop® P 609, is a pigmented, low solvent containing, low viscosity, two component epoxy primer for concrete or cement screed substrates that are oil contaminated or damp.

- Exhibits excellent mechanical properties
- Resistant to water, sea and waste water, aswell as a variety of alkalis, diluted acids, brine, mineral oils, lubricants and fuels

Fields Of Application

- Indoors as a pore and capillary sealing primer on concrete or cement screed substrates.
- Oil-contaminated mineral substrates such as concrete and cement screeds.
- On substrates where oil is expected to rise by capillary action.
- Substrates, which have been cleaned by highpressure water jetting.
- Primer for **MasterTop®** Epoxy/PU coatings
- Primer for **MasterSeal®** PU coatings

Consumption

MasterTop® P 609 is between 0.6 – 1.0 kg/m² depending on the condition and porosity of the substrate.

Packaging

MasterTop® P 609, is supplied in 20 kg working packs
Part A: 17,9 kg
Part B: 2,1 kg

Features And Benefits

- Exhibits very good adhesion to damp or oil contaminated substrates
- The strong yellowing which occurs when exposed to UV light does not affect its mechanical properties

Technical Data

Mixing Ratio			by weight	100: 12
Density	Part A	at 23°C	g/cm ³	2,00
	Part B	at 23°C	g/cm ³	
	Mixed	at 23°C	g/cm ³	
Viscosity	Part A	at 23°C	mPa.s	800
	Part B	at 23°C	mPa.s	
	Mixed	at 23°C	mPa.s	
Pot Life		at 23°C	min.	20
Re-coating interval		at 10°C	Hour	Min. 36
		at 23°C	Day	Max. 3
		at 30°C	Hour	Min. 24
			Day	Max. 2
			Hour	Min. 4
			Day	Max. 12
Fully cured		at 23°C	d	7
Permissible substrate and ambient temperatures			°C	Min. 8
			°C	Max. 35
Permissible relative humidity max.		at 10°C	%	75
		at > 23°C		85
Technical data cured material*				
Shore-D hardness after 7 days				75
Compressive strength		after 28 days	N/mm ²	100
Tensile strength		after 7 days	N/mm ²	>2

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® P 617

Description Of Product

MasterTop® P 617, is a non-solvented (total solid), low viscosity, two component epoxy resin based primer.

- Seals pores and capillaries
- Excellent bond to substrate
- Low emission

Fields Of Application

MasterTop® P 617, is designed for use indoor and outdoor as a primer on mineral substrates such as concrete and cementitious screed. You can use it as scratch primer by adding oven dried silica sand in a proportion of 1: 0,5 till 1: 2.

MasterTop® P 617 fulfills the requirements of the relevant directive about the effect of rising humidity and can be applied on surfaces in contact with the ground if a damp proof course has been properly installed and is intact. **MasterTop® P 617** has been tested and classified as low emission in Systems like **MasterTop® 1325**.

Consumption

The consumption of **MasterTop® P 617** is between 0.3 – 0.5 kg/m² depending on the condition and porosity of the substrate. A second coat of 0.2 – 0.4 kg/m² of **MasterTop® P 617** is recommended for very porous substrates and improves the protection against rising damp.

Oven dried silica sand 0.3 – 0.8 mm should be broadcast at approximately 1.0 kg/m² not in excess into the still wet primer. *The above consumption figures are intended as a guide only and may be higher on very rough or porous substrates.*

Features And Benefits

- Low viscosity
- Easy to apply
- Excellent penetration

Packaging

MasterTop® P 617,
Part A :14,47 Kg
Part B : 6,50 Kg

Technical Data

Mixing Ratio			by weight	100: 43
Density	Part A	at 23°C	g/cm ³	1,12
	Part B	at 23°C	g/cm ³	1,03
	Mixed	at 23°C	g/cm ³	1,07
Viscosity	Part A	at 23°C	mPa.s	600
	Part B	at 23°C	mPa.s	380
	Mixed	at 23°C	mPa.s	490
Pot Life (25 kg unit)		at 12°C	min.	60
		at 23°C		30
		at 30°C		15
Re-coating interval		at 12°C	H	Min. 24
		at 23°C		Max. 48
		at 30°C		Min. 7 Max. 36 Min. 3 Max. 24
Fully cured		at 10°C	d	5
		at 23°C		3
		at 30°C		2
Permissible substrate and ambient temperatures			°C	Min. 8
			°C	Max. 30
Permissible relative humidity max.		at 10°C	%	75
		at > 23°C		85
Technical data cured material*				
Shore D hardness after 7 days				80
Compressive strength		after 28 days	N/mm ²	81
Tensile strength		after 7 days	N/mm ²	28

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® P 677

(Formerly known as Mastertop® P 677 Z)

Description Of Product

MasterTop® P 677, is an epoxy based, two components, low viscosity primer and penetration material for use on mineral substrates such as concrete and cement.

Fields Of Application

- With the addition of the appropriate amount of silicasand, it can be used as a repair mortar.
- Used as a surface smoothing mortar on surfaces where bitumen membrane is to be applied. (According to German bridge deck isolation standards TL/TP BEL-EPZTV-BEL-B87.)
- Under **MasterTop®** epoxy/ polyurethane floor coatings.
- Under **MasterTop®** epoxy/ polyurethane floor coatings.

Features And Benefits

- Easy to apply.
- Tolerant to damp that raises from the floor.
- Penetrates to capillary holes within concrete structure hence blocks the holes.
- Provides excellent penetration and adherence

on cement based surfaces.

- MasterTop® P 677** does not lose its performance under sudden temperature changes between -20 - +50°C. It has also been tested under +250°C and above for short periods of time.
- It has been tested according to the German Bridgeisolation system standards.
- It does not contain any solvents.

Consumption

The consumption of **MasterTop® P 677** is between 0.3 – 0.5 kg/m² depending on the condition and porosity of the substrate.

Packaging

MasterTop® P 677,
Part A : 15 Kg
Part B : 6,46 kg

Technical Data

Mixing Ratio		by weight		100: 45
Density	Mixed	at 23°C	g/cm ³	1,09
Pot Life		at 23°C	mm	20
Re-coating interval		at 10°C at 23°C at 30°C	H	Min. 24 Max. 48 Min. 7 Max. 36 Min. 3 Max. 24
Fully cured		at 23°C	d	7
Permissible substrate and ambient temperatures			°C	Min. 8
			°C	Max. 30
Permissible relative humidity max.		at 10°C at > 23°C	%	75 85
Technical data cured material*				
Shore-D hardness after 7 days				80
Compressive strength		after 28 days	N/mm ²	50
Bonding strength		after 7 days	N/mm ²	>2

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® P 687 W AS

(Formerly known as Mastertop® CP 687 W AS N)

Description Of Product

MasterTop® P 687 W AS, is a conductive, water-based, non-solvented, low viscosity, black pigmented 2-component conductive primer based on a liquid epoxy resin.

Fields Of Application

MasterTop® P 687 W AS, is used indoors as a conductive layer on primed mineral substrates such as concrete and cement screeds.

It is used in the systems **MasterTop® 1273 AS, 1273 AS-R, 1278 AS, 1278 AS-R, 1324 AS and 1324 ESD** for flooring applications where anti-static properties are required.

Features And Benefits

- Low viscosity
- Easy to apply
- Anti-static properties
- Always top-coated with an anti-static floor coating system (**MasterTop® BC 372AS, BC 375NAS, BC 378AS**)

Consumption

MasterTop® P 687 W AS 80 - 100 g/m²

Please refer to System data sheets **MasterTop® 1273 AS, MasterTop® 1273 AS-R, MasterTop® 1278 AS, MasterTop® 1278-R, MasterTop® 1324 AS and MasterTop® 1324 ESD**.

Packaging

MasterTop® P 687 W AS is supplied in 15-kg working packs.

Technical Data

Mixing Ratio			by weight	2:3
Density	Part A	at 23°C	g/cm ³	1,62
	Part B	at 23°C	g/cm ³	1,02
	Mixed	at 23°C	g/cm ³	1,44
Pot Life (15 kg drum)		at 20°C / 60% r.h.	min.	30
Solid content		by volume	%	35
Re-coating interval / ready for traffic		at 10°C	H	Min. 18
		at 20°C		Max. 48
		at 30°C		Min. 12
Fully cured		at 20°C	d	5
Substrate and application temperatures			°C	Min. 10
			°C	Max. 30
Max. permissible relative humidity			%	75

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® TC 409 W ESD

(Formerly known as Mastertop® TC 409 W-ESD N)

Description Of Product

MasterTop® TC 409 W ESD, is an antistatic 2K-PU top coat with matt finish, water borne and low emission.

Fields Of Application

MasterTop® TC 409 W ESD is designed for use as a wear resistant antistatic top coat for indoor application in ESD areas with low to medium mechanical stress.

MasterTop® TC 409 W ESD is designed to provide an ESD top coat on smooth surface like the conductive polyurethane body coat **MasterTop® BC 375 N AS** in the system **MasterTop® 1324 ESD** as a system component.

Features And Benefits

- ESD properties (EN 61340-5-1, 4-5)
- Improves scratch and wear resistance
- Water based, environmentally friendly
- Low emission (according AgBB)
- Pigmented, matt finish
- Good adhesion to non-porous substrates
- Easy to apply

Consumption

ca. 0,15 – 0,18 kg/m²

Packaging

MasterTop® TC 409 W ESD is supplied in 10-kg working packs.

Technical Data

Mixing Ratio		by weight	4:1
Solid content		%	45
Mixed density	at 23°C	g/cm ³	1,24
Mixed viscosity	DIN 4 mm cup at 23°C	s	25
Pot-life	at 20°C	h	3
Light pedestrian traffic	at 23 °C/50 % r.h. at 10 °C/50 % r.h	h	Min. 8 Max. 48
Fully cured	at 23°C	d	25 12
Substrate and application temperatures		°C °C	80
Max. permissible relative humidity	at any T°C	%	7
Technical data cured material*			
Taber abrasion	CS 10, 1KG, 1000U	mg	65
Point-to-point resistance	EN 61340-4-1	Ohm	5.10 ⁵ - 5.10 ⁶
In combination with the conductive system MasterTop 1384 ESD the special requirements according to EN 61340-5-1 are fulfilled.			
Resistance to ground	EN 61340-4-1	Ohm	< 10 ⁹
Footwear/Person/Floor	EN 61340-4-5	Ohm	< 3,5.10 ⁷
Walking-test	EN 61340-4-5	V	< 100

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® TC 417 W

Description Of Product

MasterTop® TC 417 W, is a water borne, non-solvented, low emission, bacteriostatic, clear or pigmented 2K-PU top coat which cure to a matt finish.

Fields Of Application

MasterTop® TC 417 W is designed, for use as a wear resistant top coat on elastic polyurethane systems, i.e. MasterTop® 1325 (pigmented version), MasterTop® 1326 (clear version), MasterTop 1327 C (pigmented version), MasterTop® 1327 D (clear version), MasterTop® WS 200 PU and MasterTop® WS 300 PU (pigmented version).

Features And Benefits

- Matt finish
- NMP, APEO, VOC, glycol- and solvent free
- Very low emission (according AgBB)
- Abrasion resistant

- Improves scratch and wear resistance
- UV- stable
- Good adhesion to non-porous substrates
- Low viscosity
- Easy to clean an maintain
- Bacteriostatic activity according to ISO22196:2011

Consumption

clear: ca. 0,10 – 0,12 kg/m²

pigmented: ca. 0,10 – 0,12 kg/m²

Caution: Please do not dilute the top coat with water. Do not exceed the maximum consumption.

Packaging

MasterTop® TC 417 W clear and pigmented is supplied in 10-kg working packs.

Technical Data

Mix ratio A:B		by weight		85:15
Solid content		Clear	%	48 50
Density	clear at 23°C	Part A	g/cm ³	1,05
		Part B mixed	g/cm ³ g/cm ³	1,13 1,06
	pigmented at 23°C	Part A	g/cm ³	1,13
		Part B mixed	g/cm ³ g/cm ³	1,13 1,20
Viscosity (4mm DIN cup for part A and mix)	clear at 23°C	Part A	Sec.	32
		Part B mixed	mPa.s Sec.	1480 45-55
	pigmented at 23°C	Part A	Sec.	17
		Part B mixed	mPa.s Sec.	1480 35-458
Working Time		at 20°C	min	45
Ambient and substrate temperatures			h	Min. 16 Max. 24
Re-coating interval at 20°C			°C °C	min. 10 max. 30
Light pedestrian traffic	at 12°C / 50%r.h.			24
	at 23°C / 50%r.h.		H	18
	at 30°C / 50%r.h.			12
Fully cured	at 23°C		D	7
Max. relative humidity			%	Min. 30
			%	Max. 80
Surface properties		matt, light structure		

* The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® TC 442 W

Description Of Product

MasterTop® TC 442 W, is water borne, non-solvented, low emission, clear or pigmented 2K-PU top coat which cures to a matt finish.

Fields Of Application

MasterTop® TC 442 W, is designed, for use as a wear resistant clear or pigmented top coat on semi-rigid polyurethane systems, i.e. MasterTop® 1324 and on epoxy systems, i.e. MasterTop® 1273.

Features And Benefits

- Matt finish
- NMP, APEO, VOC, glycol- and solvent free
- Very low emission (according AgBB)
- Abrasion resistant
- Improves scratch and wear resistance
- UV- stable

- Good adhesion to non-porous substrates
- Low viscosity
- Easy to clean and maintain

Consumption

Clear version: between 0,10 – 0,15 kg/m²

Pigmented version: between 0,08 – 0,10 kg/m²

Packaging

MasterTop® TC 442 W is supplied in 10 kg working packs.

Technical Data

Mix ratio			by weight	80.20
Solid content	Clear	In weight	%	43
	pigmented			47
Density	clear at 23°C	Part A	g/cm ³	1,05
		Part B	g/cm ³	1,13
		mixed	g/cm ³	1,07
	pigmented at 23°C	Part A	g/cm ³	1,14
		Part B	g/cm ³	1,13
		mixed	g/cm ³	1,14
Viscosity	Part A	at 23°C	mPa.s	170-450
	Part B	at 23°C	mPa.s	1300
	mixed	at 23°C	mPa.s	550-850
Working Time		20°C	Min.	45
Ambient and substrate temperatures		at 20°C	°C	Min. 16
			°C	Max. 24
Re-coating interval			h	Min.10
			h	Max.30
Light pedestrian traffic	at 12°C/50% r.h.		h	24
	at 23°C/50% r.h.		h	18
	at 30°C/50% r.h.		h	12
Fully cured	at 23°C		d	5
Max. relative humidity			%	min. 30
			%	maks. 80
Surface properties			matt, light structure	

*The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® TC 446

Description Of Product

MasterTop® TC 446, is single component aerial curing, cold applied paint for carpark and line marking and signing based on MMA (methylmetacrilate).

Fields Of Application

MasterTop® TC 446, **MasterTop®** is useful for line marking and signalization on **MasterTop®** systems, dry shake applied concrete and asphalt surfaces

Features And Benefits

- Single component,
- Easy to apply.
- Suitable for infor and outdoor applicaitons.
- Cold applied.
- Fast curing.
- Fast curing with thick applicaitons.
- High abrasion resistance.
- UV resistance.

Coverage

Due to hiding power, **MasterTop® TC 446** should be applied as two layer. One layer consumption is 165g/m²

Packaging

MasterTop® TC 446 is supplied in 15 kg working packs.

Technical Data

Density	Mixed	At 23°C	g/cm ³	1,611
Viscosity	Mixed	At 23°C	mPa.s	2250
Pot Life		At 20°C	minutes	
Substrate and Ambient Temperature			°C °C	Min.5 MaX.30
Ready to traffic		At 23°C	minutes	60
Abrasion Resistance (TABER)		EN ISO 5470- 1	gram	0,25

**The above figures are intended as a guide only and should not be used as a basis for specifications.*



MasterTop® TC 468

Description Of Product

MasterTop® TC 448, is a two component, solvent containing, pigmented, UV resistant, polyurethane based top coat with resistance to abrasion and chemicals and cures to a matt finish.

Fields Of Application

MasterTop® TC 448, It is used as the top coat for MasterTop® floor coating systems

Features And Benefits

- High abrasion and chemical resistance
- Easy to apply.
- Elastic
- Matt finish.
- Resistant to UV and weather conditions.
- Good adhesion to non-porous substrates.
- Low viscosity.

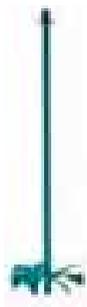
Coverage

0.10-0.15 kg/m²

Packaging

21,455 kg set
Part A: 15.50 kg drum
Part B: 5.595 kg drum

Technical Data

MasterTop TC 468 Part A MasterTop TC 468 Part B	Polyurethane Resin Polyurethane Hardener	
Color	Various Ral Colors	
Mixed Density	1.31 kg/liter	
Viscosity	600 mPas	
Substrate Temperature	+10°C +30°C	
Pot(Working) Life	35 min.	
Ready to Traffic	48 hours	
Fully Cured	7 days	



MasterTop® TC 941

Description Of Product

MasterTop® TC 941 is a pigmented, non solvented, two component topcoat producing a light stable, tough and durable surface with a lightly structured gloss finish that has exceptional scratch and wear resistance.

Fields Of Application

MasterTop® TC 941 is designed for use as a light stable wear resistant finish for rigid and semi-rigid MasterTop® body coats, such as MasterTop® BC 372 and MasterTop® BC 375N. Refer to individual system data sheets MasterTop® 1912 and MasterTop® 1913.

Features And Benefits

- The next generation polyurethane technology
- Glossy finish
- Structured finish improves slip resistance
- NMP, APEO, VOC, glycol- and solvent free
- Very low emissions (according to AgBB scheme)

- Abrasion resistant
- Exceptional cleanability allows easy maintenance
- Improves scratch and wear resistance
- High hiding power even at low consumption
- UV- stable
- Easy to clean: low maintenance costs
- High durability
- Durable aesthetics

Consumption

Pigmented: 0,10 – 0,14 kg/m²

Caution: Please do not dilute the top coat with water. Do not exceed the maximum consumption.

Packaging

MasterTop® TC 941 pigmented is supplied in 12-kg working packs.

Technical Data

Mix ratio		by weight		1 : 9
Solid content		pigmented	%	99
Density	pigmented at 23°C	Part A	g/cm ³	1,18
		Part B	g/cm ³	1,31
		mixed	g/cm ³	1,30
Viscosity	pigmented at 23°C	Part A	mPa.s	400
		Part B	mPa.s	1100
		mixed	mPa.s	1000
Working Time		at 20°C	min.	30
Ambient and substrate temperatures		-	°C	min. 10
			°C	max. 30
Re-coating interval			hour	min. 12
			hour	max. 24
Light pedestrian traffic		At 12°C / 50%r.h.	hour	24
		At 23°C / 50%r.h.	hour	12
		At 30°C / 50%r.h.	hour	10
Fully cured		at 20°C	d	7
Max. relative humidity			%	min. 12
			%	max. 24
Surface properties		Semi-glossy, light structure		

The above figures are intended as a guide only and should not be used as a basis for specifications.



MasterTop® TC 485 W

Description Of Product

MasterTop® TC 485 W, is a non-solvented, water-based, two component epoxy top coat which cures to a satin finish. Either used as a coating on concrete or screeds and top coat on diffusion permeable flooring systems.

Fields Of Application

MasterTop® TC 485 W, is designed for indoor dust proofing, surface hardening and sealing of concrete floors or cementitious and magnesite screeds. Moreover it can be used as protective layer during the building phase and is also used in MasterTop® 1785 and MasterTop® 1785 R systems.

Features And Benefits

- Water-based, environmentally friendly
- Virtually odourless during application
- Easy to apply
- Good adhesion to non porous surfaces
- Matt – satin finished

Consumption

First layer (priming):
0.15 – 0.25 kg/m² (Dil. 5% with water)

Second and third layer:
0.20 – 0.25 kg/m² (no dilution)

Packaging

MasterTop® TC 485 W is supplied in 25 kg working packs.

Technical Data

Mix ratio		by weight		2 : 3
Solid content		by volume	%	57
Density	Part A	at 23°C	g/cm ³	1,10
	Part B	at 23°C	g/cm ³	1,40
	mixed	at 23°C	g/cm ³	1,25
Viscosity (Brookfield, Sp. 5 / 20rpm)	Part A	at 23°C	mPa.s	1000
	Part B	at 23°C	mPa.s	5000
	mixed	at 23°C	mPa.s	1200
Pot life (25-kg-unit)		at 23°C	min.	40
Ambient and substrate temperatures		at 23°C	°C °C	min. 8 max. 48
Re-coating interval			h h	min. 10 max. 48
Ready for low traffic		at 23°C	h	48
Fully cured		at 23°C	d	7
Technical data cured material				
Abrasion Resistance TABER		EN ISO 5470-1	mg	65
Fire classification according to ÖNORM EN 13501-1		consumption:330 g/m ²		B-s1

*The above figures are intended as a guide only and should not be used as a basis for specifications.



High Performance Flooring Systems



UCRETE® DP

Description Of Product

UCRETE® DP, is unique HD Polyurethane resin technology with exceptional resistance to aggressive chemicals, heavy impact and temperatures up to 120°C. **UCRETE® DP** is a family of products with defined surface profiles suitable for applications in wet and dry process environments.

The system offers a uniformity of surface texture with enhanced aesthetics, with a gloss or matt finish, so providing a safe and attractive working environment. It is dense and impervious, providing the ideal floor finish for applications in the food and beverage, pharmaceutical and chemical industries and wherever a robust long lived floor is required.

With three defined surface profiles and three thickness specifications available, **UCRETE® DP** is designed to meet a wide range of service and temperature requirements.

Ucrete® Industrial Flooring has been widely used through- out industry for more than 40 years, many of the older floors are still in service. A detailed project reference list is available upon request.

An antistatic version of **UCRETE® DP 10** and **UCRETE® DP 20** is available, see separate data sheet.

Technical Data

Density	2000 – 2090 kg/m ³
Compressive strength (EN13892-2)	48 - 54 MPa
Tensile strength (BS6319 Part 7)	5 - 7 MPa
Flexural strength (EN13892-2)	12 - 14 MPa
Compressive modulus (BS 6319:Part 6)	3250 - 5000 MPa
Adhesive strength to concrete (EN13892-8)	concrete failure
Coefficient of thermal expansion (ASTM C531:Part 4.05)	4.0 x 10 ⁻⁵ °C ⁻¹
Fire Testing (EN13501: Part 1)	BFL – S1

Note:- Samples cured for 28 days at 20°C



UCRETE® HPQ

Description Of Product

UCRETE® HPQ, is unique HD polyurethane resin technology with an attractive coloured quartz screed finish.

UCRETE® HPQ provides a robust 4-6mm thick coloured quartz floor finish suitable for applications in wet and dry process environments.

It is dense and impervious, providing the ideal floor finish for applications in pharmaceutical production facilities, clean room areas, amenity rooms, retail,

commercial and industry environments and wherever an attractive floor is required.

The high quality epoxy encapsulation resin finish provides for the highest aesthetic standards and ease of cleaning.

For areas where higher chemical and temperature resistance is required, the light stable high performance TOPCOAT PU CLEAR is available.

Technical Data

Density	2000 – 2090 kg/m ³
Compressive strength (EN13892-2)	48 - 54 MPa
Tensile strength (BS6319 Part 7)	5 - 7 MPa
Flexural strength (EN13892-2)	12 - 14 MPa
Compressive modulus (BS 6319:Part 6)	3250 - 5000 MPa
Adhesive strength to concrete (EN13892-8)	concrete failure
Coefficient of thermal expansion (ASTM C531:Part 4.05)	2 – 6 x 10 ⁻⁵ °C ⁻¹
Fire Testing (EN13501: Part 1)	BFL – S1

Note:- Samples cured for 28 days at 20°C



UCRETE® IF

Description Of Product

UCRETE® IF, is a unique HD polyurethane resin floor which provides an extremely tough surface for environments subject to extreme impact and abrasion. Its dense and impervious iron armoured surface provides protection against severe abrasion making it the ideal floor finish for applications in the waste management, heavy engineering and manufacturing industries and wherever a robust long lived floor is required.

Ucrete® Industrial Flooring has been widely used through- out industry for more than 40 years, many of the older floors are still in service. A detailed project reference list is available upon request

Fields Of Application

UCRETE® IF is used to protect horizontal surfaces including:

- GWaste transfer station
- Transition strips
- Heavy engineering workshops

- Heavy process areas
- Under mixing heads
- Storage bunkers
- Loading docks
- Heavy equipment maintenance facilities

Features And Benefits

- Can be applied onto 7 day old concrete or 3 day old polymer screeds
- Fully serviceable within only 24 hours (subject to temperature)
- Non-tainting from the end of mixing
- Specially treated iron aggregates for maximum abrasion resistance
- Long lived and low maintenance
- Steam cleanable
- No primer required, enabling rapid installation in a single application

Coverage

9mm: 28 - 30 kg/m²

Technical Data

Density	2080 kg/m ³
Compressive strength (EN13892-2)	55-60 MPa
Tensile strength (BS6319 Part 7)	8 MPa
Flexural strength (EN13892-2)	17 MPa
Compressive modulus (BS 6319:Part 6)	3350 MPa
Adhesive strength to concrete (EN13892-8)	concrete failure
Fire Testing: (EN13501: Part 1)	BFL – S1

Note:- Samples cured for 28 days at 20°C



UCRETE® MF

Description Of Product

UCRETE® MF, is a unique HD Polyurethane resin floor with exceptional resistance to aggressive chemicals. It provides a smooth protective floor finish suitable for applications in predominantly dry environments. It is dense and impervious, providing the ideal floor finish for applications in the food, pharmaceutical and manufacturing industries including clean room, laboratory, packing hall and warehouse applications and wherever a robust, long lived floor is required.

Ucrete® Industrial Flooring has been widely used throughout the industry for more than 40 years; many of the older floors are still in service. A detailed project reference list is available upon request

Coverage

4mm: 8 - 10kg/m² 6mm: 12 - 14kg/m²

Technical Data

Density	1970 kg/m ³
Compressive strength (EN13892-2)	48-53 MPa
Tensile strength (BS6319 Part 7)	9 MPa
Flexural strength (EN13892-2)	18-21 MPa
Compressive modulus (BS 6319:Part 6)	3250-4000 MPa
Adhesive strength to concrete (EN13892-8)	Concrete failure
Coefficient of thermal expansion (ASTM C531:Part 4.05)	3.6 x 10 ⁻⁵ °C ⁻¹
Fire Testing (EN13501: Part 1)	BFL – S1

Note:- Samples cured for 28 days at 20°C



UCRETE® MF 40AS

Description Of Product

UCRETE® MF 40AS, is a unique heavy duty resin floor which provides a smooth protective antistatic floor finish suitable for applications in predominantly dry environments.

UCRETE® MF 40AS is used in the electronics industry to protect sensitive electronic devices and in explosion hazarded areas.

It is dense and impervious, providing the ideal floor finish for applications in the electronics, food, pharmaceutical and manufacturing industries including clean room, laboratory, packing hall and warehouse applications and wherever a robust, long lived antistatic floor is required.

UCRETE® Industrial Flooring has been widely used throughout industry for more than 40 years; many of

the older floors are still in service. A detailed project reference list is available upon request

Features And Benefits

- Expert installation by fully trained licensed applicators
- Non-tainting from the end of mixing, as tested by the Campden Technology Ltd.
- Can be applied to early age concrete
- Does not support bacterial or mould growth
- Very low body voltage generation

Coverage

4mm: 8 - 10kg/m² 6mm: 12 - 14kg/m²

Technical Data

Density	1970 kg/m ³
Compressive strength (EN13892-2)	48-53 MPa
Tensile strength (BS6319 Part 7)	9 MPa
Flexural strength (EN13892-2)	18-21 MPa
Compressive modulus (BS 6319:Part 6)	3250-4000 MPa
Adhesive strength to concrete (EN13892-8)	Concrete failure
Coefficient of thermal expansion (ASTM C531:Part 4.05)	3.6 x 10 ⁻⁵ °C ⁻¹
Fire Testing (EN13501: Part 1)	BFL – S1
Resistance to earth (EN1081)	< 1 MΩ
Resistance to earth (EN61340-4-1) Resistance of man to earth (EN61340-4-5)	< 1 GΩ
Body voltage generation (EN61340-4-5)	< 35 MΩ <100 V



UCRETE® RG

Description Of Product

UCRETE® RG, is a unique HD Polyurethane thixotropic resin mortar with exceptional resistance to aggressive chemicals, heavy impact and temperatures up to 120°C UCRETE® RG provides a robust render for vertical applications in wet and dry process environments. It is dense and impervious providing the ideal finish for applications in the food and beverage, pharmaceutical and chemical industries.

UCRETE Industrial Flooring has been widely used throughout industry for more than 40 years, many of the older floors are still in service. A detailed project reference list is available upon request

Fields Of Application

- Plinths
- Drains
- Secondary containment bunds
- Tank bases
- Sumps

- Effluent storage pits
- Coving and skirting

Features And Benefits

- Expert installation by fully trained licensed applicators
- Suitable for application on to 7 day old concrete and 3 day old polymer screeds
- Achieves full cure in only 48 hours (subject to temperature)
- Hygienic and non-tainting
- Steam cleanable @ 9mm and above
- Rapid installation, up to 9mm in a single application

Coverage

- 4mm: 8 - 9 kg/m²
- 6mm: 12 - 13 kg/m²
- 9mm: 18 - 20 kg/m²

Technical Data

Density	2090 kg/m ³
Compressive strength (EN13892-2)	47-52 MPa
Tensile strength (BS6319 Part 7)	7 MPa
Flexural strength (EN13892-2)	15 MPa
Abrasion resistance (EN5470-1) Taber H22 wheel, 1000 cycles	126 mg
Adhesive strength to concrete (EN13892-8)	concrete failure
Fire Testing (EN13501: Part 1)	BFL – S1

Note:- Samples cured for 28 days at 20°C



UCRETE® UD 200

Description Of Product

UCRETE® UD 200, is a unique HD Polyurethane resin floor with exceptional resistance to aggressive chemicals, heavy impact and temperatures up to 150°C. **UCRETE® UD 200** provides a lightly textured protective floor finish suitable for applications in wet and dry process environments. It is dense and impervious, providing the ideal floor finish for applications in the food and beverage, pharmaceutical and chemical industries and wherever a robust, long lived floor is required.

UCRETE Industrial Flooring has been widely used throughout industry for more than 40 years, many of

the older floors are still in service. A detailed project reference list is available upon request

Coverage

6mm: 13 – 15 kg/m²

9mm: 19 – 22 kg/m²

12mm: 24 kg/m²

Packaging

30,53 kg set

Technical Data

Density	2090 kg/m ³
Compressive strength (EN13892-2)	52-57 MPa
Tensile strength (BS6319 Part 7)	6 MPa
Flexural strength (EN13892-2)	14 MPa
Compressive modulus (BS 6319:Part 6)	3250 MPa
Adhesive strength to concrete (EN13892-8)	concrete failure
Coefficient of thermal expansion (ASTM C531:Part 4.05)	4,0 x 10 ⁻⁵ °C ⁻¹
Fire Testing (EN13501: Part 1)	BFL – S1

Note:- Samples cured for 28 days at 20°C



Wall Systems



MultiTherm® 100

(Formerly known as Polyap® Y)

Description Of Product

MultiTherm® 100, is a polymer modified cement based ready to use adhesive used in adhesion of polystyrene heat insulation sheets.

Complies with the TS 13566

Fields Of Application

- As adhesive for heat insulation sheets in coating works

Features And Benefits

- Enables perfect adhesion.
- Easy to prepare and apply.
- Long process time.
- Resistant to freezing - thawing cycle.

Coverage

For 1 mm thickness 1.30 kg/m² powder product.

Packaging

25 kg polyethylene reinforced kraft bags.

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.

Technical Data

Structure of the Material	Mineral Sealants, Synthetic Additives, and Special Cement	
Color	Grey	
Tensile Adhesion Strength	≥0,50 N/mm ² (28 DAYS) ~0,20 N/mm ² (28 DAYS)	
Concrete Polystyrene		
Application Thickness	Min. 3mm Maks. 8mm	
Application Ground Temperature	+5°C +30°C	
Service Temperature	-20°C +80°C	
Maturity Period	3-5 min.	
Usage Period	1 hour	
Water Absorption	max. 5gr. EN 12808-5	
Flexural Strength	Min. 2 N/mm ²	
Compressive Strength	Min. 6 N/mm ²	

Obtained in +23 °C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time



MultiTherm® 400

(Formerly known as Polyap® S)

Description Of Product

MultiTherm® 400, is a polymer modified and fiber reinforced, cement based ready to use plaster material used in plastering of polystyrene heat insulation sheets.

Complies with the EN 998-1

Fields Of Application

- As plaster for heat insulation sheets in coating works.
- In plastering of reinforced concrete surfaces before painting.

Features And Benefits

- Enables perfect adhesion.
- Fiber reinforcement minimizes superficial cracks.
- Easy to prepare and apply.
- Long process time.
- Paint can be applied directly on it.
- Resistant to freezing-thawing cycle.

Technical Data

Structure of the Material	Mineral Sealants, Synthetic Additives, and Special Cement	
Color	Grey	
Compressive Strength	EN 1015-11	≥6,00 N/mm ² (28 DAYS)
Adhesion Strength to Polystyrene Plate	~0,20 N/mm ² (28 DAYS)	
Application Thickness	Min. 3mm	Maks. 5mm
Application Temperature	+5°C +30°C	
Service Temperature	-20°C +80°C	
Maturation Time	3-5 min.	
Workability Time	60 minutes	
Water Absorption	EN 12808-5 max. 5 gr	
Flexural Strength	Min. 2 N/mm ²	



* Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time.



MultiTherm® 702

Description Of Product

MultiTherm® 702, is a cement based single component, polymer and fiber reinforced decorative plaster with water repelling characteristic.

Fields Of Application

- In inner and outer areas.
- On mineral based surfaces.
- As decorative plaster on exterior heat insulation systems.

Features And Benefits

- Mixes only with water.
- Easy and quick to apply.
- Enables perfect adhesion.
- Vapor permeable.
- Can be painted.
- Resistant to external factors.
- Resistant to freezing-thawing cycle.

Coverage

2.5-3.0 kg/m² (powder product).

Packaging

20 kg polyethylene reinforced kraft bags.

Shelf Life

12 months after the production date under appropriate storing conditions. Opened packages have to be stored by tightly sealing the bag, and must be used in one week.

Technical Data

Structure of the Material	Mineral Sealants, Synthetic Additives, and Special Cement	
Color	White	
Adhesion Strength to Concrete (EN 1542)	≥1,00 N/mm ² (28 days)	
Application Ground Temperature	+5°C +30°C	
Application Temperature	+5°C +30°C	
Service Temperature	-20°C +80°C	
Maturity Period	3 - 5 minutes	
Usage Period	1 hour	

Obtained in +23°C, 50% relative humidity conditions. Higher temperatures decrease the time, lower temperatures increase the time



Admixture Systems



Concrete Admixtures



MasterGlenium® 27

Description Of Product

MasterGlenium® 27, is a high range water reducing admixture, based on modified poly-carboxylic ether polymers. Primarily developed for the ready-mix concrete industry where slump retention, high strength and durability are required. It has a primary role in producing 'self-compacting concrete'.

The excellent dispersion effect makes **MasterGlenium® 27** the ideal admixture for the ready-mix concrete industry. The ability to work with a very low water/cement ratio and still obtain extended workability retention, allows for the manufacture of high quality concrete.

Features And Benefits

MasterGlenium® 27 offers the following benefits:

- Self-compacting concrete.
- Rheoplastic concrete with the lowest water/cement ratio.
- No segregation or bleeding.
- Low vibration time required even in case of highly reinforced concrete.
- Compared to traditional superplasticizers, the addition of **MasterGlenium® 27** reduces risks of retempering concrete on the job site with additional water and improves the engineering properties of concrete i.e. early and ultimate strengths modulus of elasticity; bond strength to steel, depths of carbonation, impermeability, resistance to chemical

aggressive agents, shrinkage and creep.

Dosage

MasterGlenium® 27 The normally recommended dosage rate of **MasterGlenium® 27** is approximately:

By Weight – 1.0 to 2.0 kg per 100 kg of cement (binder).

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact with Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti Technical Services Department for dosage rate guidance.

Packaging

MasterGlenium® 27 is supplied in Bulk, 1000-kg IBC's and 220-kg barrels.

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown liquid
Specific gravity @ 20°C	1,023 – 1,063 kg/lt
pH-value	6-7
Alkali content (%):	≤ 3.0 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterGlenium® 51

Description Of Product

MasterGlenium® 51, is a polycarboxylic ether based, high range water reducing new second generation super plasticizer concrete admixture developed for readymix concrete and precast industry that needs high early and final strengths and durability.

Fields Of Application

- In the production of self consolidating and self compacting concrete.
- In the production of Rheodynamic** concrete that can easily set to densely reinforced concrete elements.
- In the production of 18-24 hours and 28 days high strength concrete.
- In the production of precast and prefabricated concrete.
- In the production of readymix concrete.

Features And Benefits

- Improves concrete's early and final compressive and flexural strengths, adherence to steel, and impermeability compared to traditional super plasticizers
- Improves concrete's mechanic properties like carbonation, resistance to chlorine ion attack, resistance to aggressive chemicals, shrinkage, and creeping.
- Enables the production of low water/cement ratio, low segregation and leaching risk Rheoplastic**** concrete.
- Enables production of high early strength concrete even in low temperatures.
- Minimizes stripping time.
- Improves wear resistance of concrete by reducing segregation and bleeding.

- Reduces application periods of resin based pavement systems on new concrete with its low water/cement ratio, high early strength and bleeding reduction properties.
- Increases Freezing-Thawing resistance of concrete.
- Reduces curing time and curing temperature in the production of precast elements.
- Can be used with all cement types. Shows less sensitivity to material differentiation.
- **MasterGlenium® 51** does not contain chlorine.

Dosage

MasterGlenium® 51 The normally recommended dosage rate of MasterGlenium 51 is approximately: By Weight – 0.7 to 0.9 kg per 100 kg of cement (binder). The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact with Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti Technical Services Department for dosage rate guidance.

Packaging

MasterGlenium® 51 is supplied in Bulk, 1000-kg IBC's and 220-kg barrels and 30-kg cans.

Shelf Life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown liquid
Specific gravity @ 20°C	1,082 – 1,142 kg/l
pH-value	6-7
Alkali content (%):	≤ 3.0 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterGlenium®

Description Of Product

MasterGlenium®, is an innovative versatile admixture based on polycarboxylic ether (PCE) polymers. **MasterGlenium®** is specially engineered for the ready-mix concrete market to replace traditional water reducers and superplasticizers. Its configuration allows it to perform as a multifunctional admixture; it is possible to obtain a high quality concrete mix with good strength development and extended workability without delayed setting characteristics.

“The Total Performance Control” concept ensures that ready-mix producers, contractors and engineers get a concrete that is of the same high quality as originally specified; starting from production at the batching plant, to the delivery and application into place, and followed by its hardening process. Utilizing Rheodynamic™ concrete technology it provides a concrete mix with exceptional placing characteristics.

Fields Of Application

MasterGlenium® is used for the production of all grades from high quality to low specification ready-mix concrete.

MasterGlenium® may be used in combination with **MasterMatrix®** admixtures for producing Rheodynamic™ concrete, capable of self-compaction, even in the presence of dense reinforcement.

Features And Benefits

The Ready-mix Producer:

- Capability of delivering high quality concrete at any time to the job site in place.
- Production of a concrete with low water cement ratio that meets EN 206-1 without loss of workability.
- Single product for most applications from everyday water reducing to Self-compacting Concrete.

The Contractor / Applicator:

- Easier placing.
- Improved concrete surfaces.
- Guarantee to place the same concrete as specified and ordered from ready-mix plant.
- More versatile and forgiving concrete mix.

The Engineer:

- Insurance that concrete meets original specification.
- High quality concrete with better durability.

Dosage

MasterGlenium® The normally recommended dosage rate of **MasterGlenium®** is approximately:

By Weight - 0.8 to 1.5 kg per 100 kg of cement (binder) content.

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact with Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti Technical Services Department for dosage rate guidance.

Packaging

MasterGlenium® is supplied in bulk and 1000-kg IBC's.

Shelf Life

MasterGlenium® 12 months if stored according to manufacturer's instructions in unopened container.

MasterGlenium® 130

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown liquid
Specific gravity @ 20°C	1.036 - 1.075 kg/l
pH-value	5-7
Alkali content (%):	≤ 3.00 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® 3495

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown liquid
Specific gravity @ 20°C	1.03- 1.07 kg/l
pH-value	5-7
Alkali content (%):	≤ 3.00 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® 3650

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown liquid
Specific gravity @ 20°C	1.034- 1.074 kg/l
pH-value	5-7
Alkali content (%):	≤ 3.00 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® 3330

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown
Specific gravity @ 20°C	1.027 - 1.067 kg/l
pH-value	5-7
Alkali content (%):	≤ 3.00 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® 3246

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown liquid
Specific gravity @ 20°C	1.055- 1.095 kg/lit
pH-value	4-7
Alkali content (%):	≤ 3.00 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® 4268

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown
Specific gravity @ 20°C	1.022- 1.062 kg/lit
pH-value	4,0-7,0
Alkali content (%):	≤ 3.00 by mass
Chloride content (%)	≤ 0.1 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® 4423

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown
Specific gravity @ 20°C	1.037- 1.077 kg/lit
pH-value	5,0-7,0
Alkali content (%):	≤ 3.00 by mass
Chloride content (%)	≤ 0.1 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterGlenium® SKY

Description Of Product

MasterGlenium® SKY, is an innovative second-generation superplasticizer based on polycarboxylic ether (PCE) polymers. It is derived directly from the Total Performance Control™ concept. **MasterGlenium® SKY** is specially engineered for ready-mix concrete. Its particular configuration allows its delayed adsorption onto the cement particles and disperses them efficiently. As compared with other PCE superplasticizers, it is possible to obtain a high quality concrete mix with accelerated strength development and extended workability without delayed setting characteristics.

Fields Of Application

MasterGlenium® SKY, is used for the production of high quality ready-mix concrete. **MasterGlenium® SKY** may be used in combination with **MasterMatrix®** viscosity modifying admixtures for producing Rheodynamic™ concrete, capable of self-compaction, even in the presence of dense reinforcement.

Features And Benefits

MasterGlenium® SKY, offers the following benefits for:

The ready-mix producer:

- Capability of delivering high quality concrete at any time to the job site in place.
- Production of a concrete with low water cement ratio that meets EN 206-1 without loss of workability.
- Single product for many application needs.

The contractor / applicator:

- Easier placing and faster strength development.
- Improved concrete surfaces.

- Guarantee to place the same concrete as specified and ordered from ready-mix plant.
- More versatile and forgiving concrete mix.

The engineer:

- Insurance that concrete meets original specification
- High quality concrete with better durability.

Dosage

MasterGlenium® SKY The normally recommended dosage rate of **Master Glenium® SKY** is approximately:

By Weight - 0.8 to 1.5 kg per 100 kg of cement (binder) content.

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti. Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact with Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti Technical Services Department for dosage rate guidance.

Packaging

MasterGlenium® SKY is supplied in bulk and 1000-kg IBC's.

MasterGlenium® SKY 608

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	brown
Specific gravity @ 20°C	1.069 – 1.109 kg/l
pH-value	5 - 7
Alkali content (%):	≤ 3.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® SKY 675

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Dark Brown
Specific gravity @ 20°C	1.058 – 1.098 kg/l
pH-value	5 - 7
Alkali content (%):	≤ 3.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® SKY 3675

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown
Specific gravity @ 20°C	1.035 – 1.075 kg/l
pH-value	5 - 7
Alkali content (%):	≤ 3.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® SKY 4140

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	brown
Specific gravity @ 20°C	1.018 – 1.058 kg/l
pH-value	5 - 7
Alkali content (%):	≤ 3.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterGlenium® RMC 303

Description Of Product

MasterGlenium® RMC 303, is an innovative second-generation superplasticizer based on polycarboxylic ether (PCE) polymers. It is derived directly from the Total Performance Control™ concept. **MasterGlenium® RMC 303** is specially engineered for ready-mix concrete. Its particular configuration allows its delayed adsorption onto the cement particles and disperses them efficiently. As compared with other PCE superplasticizers, it is possible to obtain a high quality concrete mix with accelerated strength development and extended workability without delayed setting characteristics.

The molecular structure of **MasterGlenium® RMC 303** is effective in early strength development. Conventional super plasticizers completely wrap cement particles and prevent them from joining with water by forming a barrier. By this way, the hydration process becomes slower. Differently from this mechanism, **MasterGlenium® RMC 303** molecules leave gaps on cement particles that allow sudden hydration. These gaps enable early high strength development.

The Total Performance Control™ concept ensures that ready-mix producers, contractors and engineers get a concrete that is of the same high quality as originally specified; starting from production at the batching plant, to the delivery and application into place, and followed by its hardening process. Utilizing Rheodynamic™ concrete technology it provides a concrete mix with exceptional placing characteristics and accelerated cement hydration for early strength development and high-quality concrete.

Fields Of Application

MasterGlenium® RMC 303 is used for the production of high quality ready-mix concrete. **MasterGlenium® RMC 303** may be used in combination with **MasterMatrix** viscosity modifying admixtures for producing Rheodynamic™ concrete, capable of self-compaction, even in the presence of dense reinforcement.

Features And Benefits

MasterGlenium® RMC 303 offers the following benefits for:

The ready-mix producer:

- Capability of delivering high quality concrete at any

time to the job site in place.

- Production of a concrete with low water cement ratio that meets EN 206-1 without loss of workability.
- Single product for many application needs.

The contractor / applicator:

- Easier placing and faster strength development.
- Improved concrete surfaces.
- Guarantee to place the same concrete as specified and ordered from ready-mix plant.
- More versatile and forgiving concrete mix.

The engineer:

- Insurance that concrete meets original specification
- High quality concrete with better durability.

Dosage

MasterGlenium® RMC 303 The normally recommended dosage rate of **MasterGlenium® RMC 303** is approximately:

- By Weight - 0.8 to 1.5 kg per 100 kg of cement (binder) content.

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti. Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power troweling methods, we recommend that you contact with Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for dosage rate guidance.

Packaging

MasterGlenium® RMC 303 is supplied in bulk and 1000-kg IBC's.

Shelf life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Green
Specific gravity @ 20°C	1.00 – 1.1 kg/ltr
pH-value	5 - 8
Alkali content (%):	≤ 3.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterEase® 3750

Description Of Product

MasterEase® 3750, is a superplasticizer, high range water reducer from recent research work of R & D laboratories of Master Builders Solutions. The **MasterEase® 3750** is designed to impart exceptional rheological properties to fresh concrete. It improves considerably the placing and finishing of concretes and enhances the ease of concrete pumping for all construction activities.

Fields Of Application

MasterEase® 3750 is based on an innovative polymer chemistry and it is patented by Master Builders Solutions. Its action differs from traditional superplasticizers, to the extent that the adsorption of polymers of **MasterEase® 3750** on binder particles is provided by a flexible chemical bond which does not impede the flow of concretes. This innovation significantly improves rheological behaviour of concretes treated by **MasterEase® 3750**, they have a low yield stress, low viscosity with additional feature of long workability retention.

Features And Benefits

MasterEase® 3750 is recommended for the production of self-compacting concrete requiring low viscosity, long workability retention and high compressive strength.

MasterEase® 3750 is specially formulated for the concrete industry. It is also suitable for applications in the general Civil and building sites.

It can be used for the realization and achievement of the following:

- Concrete complying to EN 206-1 / CN
- Precast and Site Mix concretes
- Superior Concrete pumping
- Reduction of Concrete waste
- Ease of compacting and finishing concrete
- High performance and ultra-high strength concrete
- Concrete for low environmental impact and high in mineral additions
- Architectural concrete

Dosage

MasterEase® 3750 Recommended range: 400ml to 2000ml per 100kg cementitious.

For other uses, please contact your local Master Builders Solutions representative.

To use in synergy and combination with another Master Builders Solutions' product range, please consult your local Master Builders Solutions' representative

Packaging

The **MasterEase® 3750** is supplied in Bulk, 1000-kg IBC's

Technical Data

Structure of the Material	Poli Aril Eter
Appearance	Yellowish
Specific gravity @ 20°C	1.030 - 1.080 kg/lt
pH-value	4-8
Alkali content (%)	≤ 3.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterRheobuild®

Description Of Product

MasterRheobuild®, is a naphthalene sulphonate based high range water reducing/ superplasticizer admixture that improves the early and final strengths of concrete by giving Rheoplastic property.

Fields Of Application

- Concrete where high plasticity, normal-setting characteristics and accelerated strengths are desired
- Prestressed, precast and ready-mixed concrete applications
- Civil and mining applications

Features And Benefits

- Less dependence on consolidation energy
- Job time and cost reduced through higher productivity rates and/or reduced labor
- Early strength allows for accelerated construction methods, resulting in completion dates ahead of schedule
- Engineering specification changes can allow for greater limits on the free-fall of concrete, lift heights, concrete temperatures and potential economic mixture adjustments.

Plastic State:

- Controlled set times
- Cohesive and non-segregating
- Minimal bleed water

Hardened State:

- Higher earlier strengths than can be achieved with conventional high-range
- water reducers
- Increased ultimate compressive strength
- Higher modulus of elasticity
- Improved bond strength to steel
- Low permeability
- High durability
- Reduced shrinkage and creep
- Highly reliable in-place structural integrity

Dosage

MasterRheobuild® is suggested to be used as 0.8-2 kg for 100 kg binder (cement/microsilica-fly ash). The dosage to be used must be determined beforehand by laboratory experiments according to concrete class and properties. Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Service Department must be consulted for detailed information.

Packaging

MasterRheobuild® 1000 kg tank Bulk

Shelf life

MasterRheobuild® 12 months if stored according to manufacturer's instructions in unopened container.

MasterRheobuild® 3185

Technical Data

Structure of the Material	Naphthalene Sulphonate Based
Appearance	Brown
Specific gravity @ 20°C	1.175 - 1.235 kg/l
pH-value	5-7
Alkali content (%)	≤ 10 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterRheobuild® 181

Technical Data

Structure of the Material	Naphthalene Sulphonate Based
Appearance	Brown
Specific gravity @ 20°C	1.102-1.1162 kg/l
pH-value	5,0-7,0
Alkali content (%)	≤ 10 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterRheobuild® 737

Technical Data

Structure of the Material	Naphthalene Sulphonate Based
Appearance	Brown
Specific gravity @ 20°C	1.178 - 1.238 kg/l
pH-value	5-7
Alkali content (%)	≤ 10.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterRheobuild® 716

Technical Data

Structure of the Material	Naphthalene Sulphonate Based
Appearance	Brown
Specific gravity @ 20°C	1.148 - 1.208 kg/l
pH-value	5-7
Alkali content (%)	≤ 5 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterRheobuild® 1000

Technical Data

Structure of the Material	Naphthalene Sulphonate Based
Appearance	Brown
Specific gravity @ 20°C	1.17 - 1.22 kg/l
pH-value	6-8
Alkali content (%)	≤ 10.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterRheobuild® 1000 T

Technical Data

Structure of the Material	Naphthalene Sulphonate Based
Appearance	Brown
Specific gravity @ 20°C	1.17 - 1.23 kg/lt
pH-value	6-8
Alkali content (%)	≤ 10.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterRheobuild® 3209

Technical Data

Structure of the Material	Naphthalene Sulphonate Based
Appearance	Dark Brown liquid
Specific gravity @ 20°C	1.178 - 1.238 kg/lt
pH-value	8-10
Alkali content (%)	≤ 10 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterRheobuild® 3298 S

Technical Data

Structure of the Material	Naphthalene Sulphonate Based
Appearance	Brown
Specific gravity @ 20°C	1.178 - 1.238 kg/lt
pH-value	5-9
Alkali content (%)	≤10(by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterRheobuild® 3298 W

Technical Data

Structure of the Material	Naphthalene Sulphonate Based
Appearance	Brown
Specific gravity @ 20°C	1,140-1,200 kg/lt
pH-value	8,0-10,0
Alkali content (%)	≤ 10 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterRheobuild® 3190

Technical Data

Structure of the Material	Naphthalene Sulphonate Based
Appearance	Brown
Specific gravity @ 20°C	1,176-1,236 kg/lt
pH-value	6,0-9,0
Alkali content (%)	≤ 10 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterPozzolith®

Description Of Product

MasterPozzolith®, is a powerful plasticizer based on lignosulphonate which disperses and deflocculates the cement particles within a concrete mix. It can be used to improve workability, without the addition of extra water, or to allow reductions in the free water content of the concrete mix.

Fields Of Application

- To increase / extend workability.
- To increase compressive strength.
- To effect cement economies.
- Wide dosage range enabling water reductions to produce a dense concrete with reduced permeability and reduced water penetration.
- In areas of congested reinforcement where high workability is of benefit.
- Wherever reduced water contents would be of benefit.
- In hot weather to extend workability.

Features And Benefits

- Significantly improves the workability of a concrete therefore reducing placing time.
- Improves the cohesive properties of the concrete helping to reduce segregation and bleed.
- Allows water reduction to be achieved whilst maintaining workability, thereby increasing strength, durability and impermeability.
- Enables economies in mix designs to be achieved.
- Improves strengths in mixes containing PFA / GGBFS and micro silica blends.

Dosage

MasterPozzolith® Field trials should be conducted to determine the optimum addition rates of **MasterPozzolith®**. As a starting point, the following dosage range is recommended:

- By Mass - 0.4 to 0.6 kg per 100 kg of cement (binder).

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power troweling methods, we recommend that you contact the according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for dosage rate guidance.

Packaging

MasterPozzolith® bulk

Shelf Life

MasterPozzolith® 12 months if stored according to manufacturer's instructions in unopened container.



MasterPozzolith® 105

Technical Data

Structure of the Material	Modified Lignin Sulfonate
Appearance	Brown
Specific gravity @ 20°C	1.136 – 1.196 kg/lt
pH-value	5-7
Alkali content (%)	≤ 10.0 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterPozzolith® 105 CB

Technical Data

Structure of the Material	Modified Lignin Sulfonate
Appearance	Dark Brown
Specific gravity @ 20°C	1.136 – 1.196 kg/lt
pH-value	5-7
Alkali content (%)	≤ 10.0 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterPozzolith® 523

Technical Data

Structure of the Material	Modifiye Lignin Sülfonat Esaslı
Appearance	Dark Brown
Specific gravity @ 20°C	1.148 – 1.208 kg/lt
pH-value	5-7
Alkali content (%)	≤ 10.00
Chloride content (%)	≤ 0.10
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterPozzolith® 530

Technical Data

Structure of the Material	Modified Lignin Sulfonate
Appearance	Brown
Specific gravity @ 20°C	1.071 – 1.131 kg/lt
pH-value	7-10
Alkali content (%)	≤ 10.0 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterPozzolith® 3094

Technical Data

Structure of the Material	Modified Lignin Sulfonate
Appearance	Brown
Specific gravity @ 20°C	1.06 – 1.10 kg/l
pH-value	5-7
Alkali content (%)	≤ 10.0 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterPozzolith® 3095

Technical Data

Structure of the Material	Modified Lignin Sulfonate
Appearance	Brown
Specific gravity @ 20°C	1.06 – 1.10 kg/l
pH-value	5-7
Alkali content (%)	≤ 10.0 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterPozzolith® 3156 S

Technical Data

Structure of the Material	Modified Lignin Sulfonate
Appearance	Brown
Specific gravity @ 20°C	1.08 – 1.09 kg/l
pH-value	5-7
Alkali content (%)	≤ 10.0 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterPozzolith® 3156 W

Technical Data

Structure of the Material	Modified Lignin Sulfonate
Appearance	Brown
Specific gravity @ 20°C	1,061-1,101 kg/l
pH-value	4,0-7,0
Alkali content (%)	≤ 10.0 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterPozzolith® 3244

Technical Data

Structure of the Material	Modified Lignin Sulfonate
Appearance	Brown
Specific gravity @ 20°C	1.165 – 1.225 kg/lt
pH-value	6-9
Alkali content (%)	≤ 10.0 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterPozzolith® 3296

Technical Data

Structure of the Material	Modified Lignin Sulfonate
Appearance	Brown
Specific gravity @ 20°C	1.136 – 1.196 kg/lt
pH-value	5-7
Alkali content (%)	≤ 10.0 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterPozzolith® 3587

Technical Data

Structure of the Material	Modified Lignin Sulfonate
Appearance	Brown
Specific gravity @ 20°C	1.12 – 1.18 kg/lt
pH-value	5-7
Alkali content (%)	≤ 10.0 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterAir® 200

Description Of Product

MasterAir® 200, is an air-entraining admixture which gives concrete extra protection by creating ultra-stable air bubbles that are strong, small and closely spaced characteristic especially useful in the types of concrete known for their difficulty to entrain and maintain the air content desired.

Fields Of Application

- Concrete exposed to freeze/thaw attack.
- To reduce bleeding due to poor aggregate grading.

Features And Benefits

The entrainment of optimum air content in concrete results in the following improvements in concrete quality:

- Increased resistance to damage from freeze/thaw cycles and to scaling from deicing salts.
- Reduced permeability - increased water-tightness.
- Reduced segregation and bleeding.
- Improved plasticity and workability.
- Greatly improved stability of air entrainment.
- Improved air-void system in hardened concrete. Improved ability to entrain and retain air in low-slump concrete; concrete containing high-carbon content fly ash; concrete containing large amounts of fine materials; concrete using high-alkali cements; high-temperature concrete; and concrete with extended mixing times.

Dosage

MasterAir® 200 is designed to be incorporated in concrete targeted to achieve air contents in the range 3 - 8%. It is compatible with all EN 197 cements but the dosage may vary.

The amount of MasterAir® 200 admixture used will depend upon the amount of entrained air required under actual job conditions. In a trial mix, use 0,09-0,2 kg for 100kg of cement and adjust in the light of results obtained. In mixes containing water-reducing, set-controlling admixtures, the amount of MasterAir® 200 may be considerably less than the amount required in plain concrete.

There is no standard dosage rate for MasterAir® 200 admixture. The exact quantity of air-entraining admixture needed for a given air content of concrete is not predictable because of differences in constituent materials. Typical factors which might influence the amount of air entrained are: water content, temperature, cement, sand grading, sand aggregate ratio, slump, means of conveying and placement, use of extra fine materials such as fly ash, etc. The amount of MasterAir® 200 used will depend upon the amount of entrained air required under actual job conditions.

For optimum, consistent performance, the air-entraining admixture should be dispensed on damp, normal, or lightweight fine aggregate. If this is not possible, plant trials should be performed to identify the optimum dispensing method. When using lightweight fine aggregate, field evaluations should be conducted to determine the best location to dispense the air-entraining admixture - on the damp fine aggregate or with the initial batch water

Packaging

MasterAir® 200 is supplied in 1000 kg- IBC's, 220-kg drums.

Shelf life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Oil alcohol and ammonium salt based
Appearance	Light brown liquid
Specific gravity @ 20°C	0.98 – 1.03 kg/lt
pH-value	9 -11
Alkali content (%)	≤ 10 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterSet® AC 326B

Description Of Product

MasterSet® AC 326B, is a polynaphthalene sulfonate and nitrate salt based set accelerating/plasticizer concrete admixture suitable for cold weather conditions that increases set acceleration and early strengths by increasing the reaction between water and cement especially at the start of set.

Fields Of Application

- In the production of pumped and non-pumped concrete.
- While pouring in cold weather to protect concrete from freezing effect and when early high strength is desired.
- In precast and prefabricated concrete

Features And Benefits

- Reduces concrete's initial and final set time compared to concrete without admixture.
- Especially in cold weathers, protects concrete from freezing effect by giving early strength.
- **MasterSet® AC 326B** does not contain chloride.

Dosage

MasterSet® AC 326B Field trials should be conducted to determine the optimum addition rates of **MasterSet® AC 326B**. As a starting point, the following dosage range is recommended:

- By Mass - 1.0-2.5 kg for 100 kg cement (binder) to accelerate the set depending on cement type, cement

dosage, concrete temperature and ambient temperature. When used at very cold weather conditions, it can be used up to 5.0 kg for 100 kg cement (binder)

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact the according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for dosage rate guidance.

Packaging

30 kg cans.
1000 kg tank.
Bulk

Shelf life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Calcium Nitrate Salt Based
Appearance	Opaque
Specific gravity @ 20°C	1.316 – 1.376 kg/lit
pH-value	5-8
Alkali content (%)	≤ 5.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains components only from EN 934-1:2008 , Annex A.2:Nitrate
Dangerous substances	Comply with annex AZ.



MasterSet® FZP 1

Description Of Product

MasterSet® FZP 1, is a polynaphthalene sulfonate and nitrate salt based set accelerating/ plasticizer concrete admixture suitable for cold weather conditions that increases set acceleration and early strengths by increasing the reaction between water and cement especially at the start of set.

Fields Of Application

- In the production of pumped and non-pumped concrete.
- While pouring in cold weather to protect concrete from freezing effect and when early high strength is desired.
- In precast and prefabricated concrete

Features And Benefits

- Reduces concrete's initial and final set time compared to concrete without admixture.
- Especially in cold weathers, protects concrete from freezing effect by giving early strength.
- **MasterSet® FZP 1** does not contain chloride.

Dosage

MasterSet® FZP 1 Field trials should be conducted to determine the optimum addition rates of **MasterSet® FZP 1**. As a starting point, the following dosage range is recommended:

By Mass - 1.0-2.5 kg for 100 kg cement (binder) to accelerate the set depending on cement type, cement dosage, concrete temperature and ambient temperature. When used at very cold weather conditions, it can be used up to 5.0 kg for 100 kg cement (binder)

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact the according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for dosage rate guidance.

Packaging

30 kg cans.
1000 kg tank.
Bulk

Shelf life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Sulfonate and Nitrate Salt Based
Appearance	Brown
Specific gravity @ 20°C	1.112 – 1.172 kg/lt
pH-value	6,5-8,5
Alkali content (%)	≤ 10.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains components only from EN 934-1:2008 , Annex A.2:Nitrate
Dangerous substances	Comply with annex AZ.



MasterSet® FZP 3000

Description Of Product

MasterSet® FZP 3000, is a polynaphthalene sulfonate and nitrate salt based set accelerating/ plasticizer concrete admixture suitable for cold weather conditions that increases set acceleration and early strengths by increasing the reaction between water and cement especially at the start of set.

Fields Of Application

- In the production of pumped and non-pumped concrete.
- While pouring in cold weather to protect concrete from freezing effect and when early high strength is desired.
- In precast and prefabricated concrete

Features And Benefits

- Reduces concrete's initial and final set time compared to concrete without admixture.
- Especially in cold weathers, protects concrete from freezing effect by giving early strength.
- **MasterSet® FZP 3000** does not contain chloride.

Dosage

MasterSet® FZP 3000 Field trials should be conducted to determine the optimum addition rates of **MasterSet® FZP 3000**. As a starting point, the following dosage range is recommended:

By Mass - 1.0-2.5 kg for 100 kg cement (binder) to accelerate the set depending on cement type, cement dosage, concrete temperature and ambient temperature. When used at very cold weather conditions, it can be used up to 5.0 kg for 100 kg cement (binder)

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact the according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for dosage rate guidance.

Packaging

30 kg cans.
230 kg drums
1000 kg tank.
Bulk

Shelf life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Sulphpnate and Nitrate Salt Based
Appearance	Brown
Specific gravity @ 20°C	1.07 – 1.11 kg/lt
pH-value	7-9
Alkali content (%)	≤ 10.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains components only from EN 934-1:2008 , Annex A.2:Nitrate
Dangerous substances	Comply with annex AZ.



MasterSet® R 100

Description Of Product

MasterSet® R 100, Placing and finishing requirements are facilitated because MasterSet® R 100 retards setting time.

- Increased compressive and flexural strength.
- Durability to damage from freezing and thawing.
- Reduced water content required for given workability.
- Retarded setting characteristics.

Fields Of Application

MasterSet® R 100 admixture is recommended for use in all types of concrete where moderate to extended retardation of set and improved performance are desired.

This admixture improves pumped concrete, shot-concrete (wet mix), and conventionally placed concrete. It improves plain, reinforced, precast, prestressed, lightweight or normal weight concrete.

MasterSet® R 100 admixture can be used with air-entraining cements and with air-entraining admixtures approved under; EN934 part 2 specifications. On its own, MasterSet® R 100 admixture does not entrain air.

Features And Benefits

- Improved workability.
- Reduced segregation.
- Superior finishing characteristics for flatwork and cast surfaces.
- Controlled retardation - depending on the addition rate.
- Provides flexibility in scheduling of placing and finishing operations.
- Offsets the effects of too early hardening during extended delays between mixing and placing.
- Helps eliminate cold joints.

Technical Data

Structure of the Material	Lignin Sulfonate
Appearance	Brown liquid
Specific gravity @ 20°C	1.115 – 1.175 kg/l
pH-value	7 - 8
Alkali content (%)	≤ 5.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

- Allows for dead-load deflection to take place (before concrete sets) in extended pours for bridge decks, cantilevers, non-shored structural elements, etc.
- Lowers peak temperature and/or rate of temperature rise in mass concrete - reduces thermal cracking.
- Effective as a single admixture or as a component in a MasterPozzolith admixture system.

Dosage

For most concrete mixes using average concrete ingredients, MasterSet® R 100 admixture is recommended for use at the rate of:

By Weights - 0.40 to 0.60 kg per 100 kg of cement (binder).

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact with Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department.

Packaging

MasterSet® R 100 is supplied in bulk and 1000-kg IBC's .

Shelf life

12 months if stored according to manufacturer's instructions in unopened container.



MasterSet® R 107

Description Of Product

Placing and finishing requirements are facilitated because **MasterSet® R 100** retards setting time.

- Increased compressive and flexural strength.
- Durability to damage from freezing and thawing.
- Reduced water content required for given workability.
- Retarded setting characteristics.

Fields Of Application

MasterSet® R 107 admixture is recommended for use in all types of concrete where moderate to extended retardation of set and improved performance are desired.

This admixture improves pumped concrete, shot-concrete (wet mix), and conventionally placed concrete. It improves plain, reinforced, precast, prestressed, lightweight or normal weight concrete.

MasterSet® R 107 admixture can be used with air-entraining cements and with air-entraining admixtures approved under; EN934 part 2 specifications. On its own, **MasterSet® R 107** admixture does not entrain air.

Features And Benefits

- Improved workability.
- Reduced segregation.
- Superior finishing characteristics for flatwork and cast surfaces.
- Controlled retardation - depending on the addition rate.
- Provides flexibility in scheduling of placing and finishing operations.
- Offsets the effects of too early hardening during extended delays between mixing and placing.
- Helps eliminate cold joints.
- Allows for dead-load deflection to take place

Technical Data

Structure of the Material	Lignin Sulfonate
Appearance	Brown liquid
Specific gravity @ 20°C	1.14 – 1.19 kg/lit
pH-value	6 - 7
Alkali content (%)	≤ 10.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

(before concrete sets) in extended pours for bridge decks, cantilevers, non-shored structural elements, etc.

- Lowers peak temperature and/or rate of temperature rise in mass concrete - reduces thermal cracking.
- Effective as a single admixture or as a component in a **MasterPozzolith** admixture system.

Dosage

For most concrete mixes using average concrete ingredients, **MasterSet® R 107** admixture is recommended for use at the rate of:

By Weights - 0.40 to 0.90 kg per 100 kg of cement (binder).

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact with Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department.

Packaging

MasterSet® R 107 is supplied in bulk and 1000-kg IBC's .

Shelf life

12 months if stored according to manufacturer's instructions in unopened container.



Precast Additives



MasterGlenium® ACE

Description Of Product

MasterGlenium®, is optimized for use where the time between concrete mixing & placing is rapid, such as when using bullet skips or direct discharge from mixer to unit. In this instance, the workability life of the concrete is optimized to give a balance between the retention of the workability but still enabling the strength development process to start as soon as possible. If utilized in conjunction with our patented **MasterX-Seed** concept this enables rapid mold turn round and can reduce or even eliminate the need for enhanced temperature curing regimes. The particular molecular configuration of **MasterGlenium®** accelerates the cement hydration by allowing an increased surface area of the cement particle to react with water. Robustness and controlled retention is a distinctive feature of the precast concrete produced with **MasterGlenium®**.

Fields Of Application

MasterGlenium® is suitable for making precast concrete elements with highly workable, non-segregating concrete utilizing low water cement ratios and, consequently, high early and final strengths. This can be achieved without the aid of vibration, for economic, ecological and ergonomic precast production.

MasterGlenium® has been developed to have a particular synergy for use with the **MasterX-Seed** Crystal Speed Hardening concept.

Features And Benefits

- Production of highly flowable, robust self-compacting concrete having a low water cement ratio along with an optimal Rheology and optimized workability retention times.
- Enhanced robustness and consistency in concrete quality with low stickiness.
- Environmentally friendly, CO2 reduced mix-design optimization.
- Potential elimination or reduction of heat curing.

Reduction in curing time or curing temperature. Increased productivity particularly in combination with **MasterX-Seed** - Crystal Speed Hardening.

- Improved surface appearance.
- Durable precast concrete elements as per EN 206-1.
- Elimination of the energy required for placing, compaction and curing (ZERO ENERGY)
- Optimization of the curing cycles.

Dosage

The normally recommended dosage rate of **MasterGlenium®** is approximately:

By Weight – 0.5 to 1.5 kg per 100 kg of cement (binder) content.

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact the according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for dosage rate guidance.

Packaging

MasterGlenium® is supplied in bulk, 1060 kg IBCs, 220 kg barrels and 25 kg cans.

Shelf Life

MasterGlenium® 12 months if stored according to manufacturer's instructions in unopened container.

MasterGlenium® ACE 30

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown
Specific gravity @ 20°C	1.05- 1.1 kg/l
pH-value	5-7
Alkali content (%):	≤ 3 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® ACE 445

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown
Specific gravity @ 20°C	1.069- 1.109 kg/l
pH-value	5-7
Alkali content (%):	≤ 3 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® ACE 450

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown
Specific gravity @ 20°C	1.069- 1.109 kg/l
pH-value	5-7
Alkali content (%):	≤ 3 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® ACE 450 TR

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown
Specific gravity @ 20°C	1.069- 1.109 kg/l
pH-value	5-7
Alkali content (%):	≤ 3 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® ACE 501

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown
Specific gravity @ 20°C	1.032- 1.072 kg/lit
pH-value	5-7
Alkali content (%):	≤ 3 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® ACE 4088

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown
Specific gravity @ 20°C	1.064- 1.104 kg/lit
pH-value	5-7
Alkali content (%):	≤ 3 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.

MasterGlenium® ACE 3460

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown
Specific gravity @ 20°C	1.072- 1.112 kg/lit
pH-value	5-7
Alkali content (%):	≤ 3 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



Zero Slump Concrete Admixture



MasterCast® 3012

Description Of Product

MasterCast® 3012 is an innovative versatile admixture based on polycarboxylic ether (PCE) polymers. **MasterCast® 3012** is specially engineered for the ready-mix concrete market to replace traditional water reducers and superplasticizers. Its configuration allows it to perform as a multifunctional admixture; it is possible to obtain a high quality concrete mix with good strength development and extended workability without delayed setting characteristics.

“The Total Performance Control” concept ensures that ready-mix producers, contractors and engineers get a concrete that is of the same high quality as originally specified; starting from production at the batching plant, to the delivery and application into place, and followed by its hardening process. Utilizing Rheodynamic™ concrete technology it provides a concrete mix with exceptional placing characteristics.

Fields Of Application

MasterCast® 3012 is used for the production of all grades from high quality to low specification ready-mix concrete.

MasterCast® 3012 may be used in combination with **MasterMatrix** admixtures for producing Rheodynamic™ concrete, capable of self-compaction, even in the presence of dense reinforcement.

Features And Benefits

MasterCast® 3012 offers the following benefits for:

The Ready-mix Producer:

- Capability of delivering high quality concrete at any time to the job site in place.
- Production of a concrete with low water cement ratio that meets EN 206-1 without loss of workability.
- Single product for most applications from everyday water reducing to Self-compacting Concrete.

The Contractor / Applicator:

- Easier placing.
 - Improved concrete surfaces.
- Guarantee to place the same concrete as specified and ordered from ready-mix plant
- More versatile and forgiving concrete mix.

The Engineer:

- Insurance that concrete meets original specification.
- High quality concrete with better durability.

Dosage

The normally recommended dosage rate of **MasterCast® 3012** is approximately:

By Weight - 0.8 to 1.5 kg per 100 kg of cement (binder) content.

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact with Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti Technical Services Department for dosage rate guidance.

Packaging

MasterCast® 3012 is supplied in bulk and 1000-kg IBC's.

Shelf life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown
Specific gravity @ 20°C	1.028 - 1.068 kg/lit
pH-value	5-7
Alkali content (%):	≤ 3.00 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterCast® 3217

Description Of Product

MasterCast® 3217 is an innovative versatile admixture based on polycarboxylic ether (PCE) polymers. **MasterCast® 3217** is specially engineered for the ready-mix concrete market to replace traditional water reducers and superplasticizers. Its configuration allows it to perform as a multifunctional admixture; it is possible to obtain a high quality concrete mix with good strength development and extended workability without delayed setting characteristics.

“The Total Performance Control” concept ensures that ready-mix producers, contractors and engineers get a concrete that is of the same high quality as originally specified; starting from production at the batching plant, to the delivery and application into place, and followed by its hardening process. Utilizing Rheodynamic™ concrete technology it provides a concrete mix with exceptional placing characteristics.

Fields Of Application

MasterCast® 3217 is used for the production of all grades from high quality to low specification ready-mix concrete.

MasterCast® 3217 may be used in combination with MasterMatrix admixtures for producing Rheodynamic concrete, capable of self-compaction, even in the presence of dense reinforcement.

Features And Benefits

The Ready-mix Producer:

- Capability of delivering high quality concrete at any time to the job site in place.
- Production of a concrete with low water cement ratio that meets EN 206-1 without loss of workability.
- Single product for most applications from everyday water reducing to Self-compacting Concrete.

The Contractor / Applicator:

- Easier placing.
- Improved concrete surfaces.
- Guarantee to place the same concrete as specified and ordered from ready-mix plant.
- More versatile and forgiving concrete mix.

The Engineer:

- Insurance that concrete meets original specification.
- High quality concrete with better durability.

Dosage

The normally recommended dosage rate of **MasterCast® 3217** is approximately:

- By Weight - 0.2 to 1.5 kg per 100 kg of cement (binder) content

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact with Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti Technical Services Department for dosage rate guidance.

Packaging

MasterCast® 3217 is supplied in bulk and 1000-kg IBC's.

Shelf Life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Modified Polycarboxylic Ether Based
Appearance	Brown
Specific gravity @ 20°C	1.035 - 1.075 kg/ltr
pH-value	4-7
Alkali content (%):	≤ 3.00 by mass
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterCast® 740

Description Of Product

MasterCast® 740 has specially been developed for earth-dry concrete. This state of the art plasticizer based on surfactant technology improves the productivity as well as the green and final strength. Due to its tribological effect, **MasterCast® 740** enhances the closeness of the lateral surfaces and eases the demoulding of the manufactured concrete products. Particular sharp edges with minimal vibration can be achieved.

MasterCast® considers the four elements essential for MCP Manufactures:

- FIT for Economics
- FIT for Performance
- FIT for Aesthetics
- FIT for Durability

MasterCast® 740 primarily has a threefold action:

- It disperses the cement particles within the mix and thus improves the cement hydration.
- It increases the mobility of the cement paste and thus improves compaction. This also means that segregation and bleeding are controlled thus giving increased strength in the hardened state.
- It increases early strength development thus allowing for earlier lifting of blocks hence reducing labor costs and improving plant efficiency.

Fields Of Application

- Concrete block Manufacture
- Dry-mix applications
- All zero slump products

Features And Benefits

- Optimised mix design
- Higher green strength
- Improved final strength
- Enhanced productivity due to higher production speed
- Sharp edges with minimal vibration
- Enhanced closeness of lateral surfaces

Dosage

The normally recommended dosage rate of **MasterCast® 740** is approximately:

By Weight – 0.1 to 0.5 kg per 100 kg of cement (binder) content.

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect.

Packaging

MasterCast® 740 is supplied in bulk and 1000-kg IBC's.

Shelf life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Appearance	Transparent
Specific gravity @ 20°C	0.99-1.1 kg/lt
pH-value	7
Chloride content (%)	≤ 0.10 (by mass)
Alkali (%)	≤ 3.0 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



Special Products



MasterLife® WP 1200

Description Of Product

MasterLife® WP 1200, crystalline waterproofing liquid admixture is an integral crystalline capillary waterproofing admixture for concrete. It is designed for use in above and below grade applications.

MasterLife® WP 1200 consists of various active, proprietary chemicals which react with the moisture in fresh concrete with the by-products of cement hydration to cause a reaction, which generates an insoluble crystalline deposit throughout the pores and capillary tracts of the concrete. Thus the concrete with **MasterLife® WP 1200** reduces water permeability. This product also has a self-healing property under presence of moisture and can heal cracks below 0.4 mm.

Fields Of Application

MasterLife® WP 1200, should be used in all structural concrete that is constantly or intermittently in contact with water such as sea walls, tunnels, basements, structural and precast concrete. **MasterLife® WP 1200** can also be used as crystalline waterproofing admixture for cement mortars and plasters. To waterproof structures such as:

- Building Basement and foundations
- Sewage and water treatment plants
- Dams, canals, Tunnels, Harbours
- Tunnel and subway systems
- Water reservoirs
- Concrete pipes
- Parking structures
- Pre-Cast, Cast-in-Place and Shotcrete applications
- Swimming pools
- Retaining walls & sea defense walls

Features And Benefits

- Crystalline cementitious material
- Integral addition

- Reduces concrete permeability
- Allows concrete to breathe
- Non toxic
- Becomes an integral part of the concrete.
- Reduces penetration of water and other liquids
- Can seal hairline cracks up to 0.4 mm.
- Resists positive and negative side hydrostatic pressure
- Protects against sewage and industrial wastes
- Less expensive than traditional methods
- Added to the concrete at time of batching and therefore is not subject to climatic restraints

Dosage

As a guide, a dosage of 1-2.5% of cementitious content is recommended. Typical dosage is 2% of cementitious content. For addition to ready mix concrete, a typical dosage of 7 kg per cubic meter of concrete is best recommended. For each 1 kg of **MasterLife® WP 1200**, 0,8 kg water has to be reduced from mix water to keep w/c.

For addition information on **MasterLife® WP 1200** or on its use in developing concrete mixes with special performance characteristics, contact your local Master Builders Solutions representative.

Packaging

MasterLife® WP 1200 is available in bulk, 1000 kg IBC, 210 kg barrel and 30 kg cans

Shelf life

MasterLife® WP 1200 must be stored where temperatures do not drop below +5°C. Shelf life is 12 months when stored as above. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult your local Master Builders Solutions representative

Technical Data

Aspect	liquid
Density	1.13 gm/cm³
Chloride content	“chloride free” to EN 934



MasterLife® WP 3760

Description Of Product

MasterLife® WP 3760, crystalline waterproofing powder admixture is an integral crystalline capillary waterproofing admixture for concrete. It is designed for use in above and below grade applications.

MasterLife® WP 3760 consists of Portland cement, very fine treated silica sand and various active, proprietary chemicals. These active chemicals react with the moisture in fresh concrete with the by-products of cement hydration to cause a reaction, which generates an insoluble crystalline deposit throughout the pores and capillary tracts of the concrete. Thus the concrete with **MasterLife® WP 3760** reduces water permeability. This product also has a selfhealing property under presence of moisture and can heal cracks below 0.4 mm.

Fields Of Application

MasterLife® WP 3760, should be used in all structural concrete that is constantly or intermittently in contact with water such as sea walls, tunnels, basements, structural and precast concrete. **MasterLife® WP 3760** can also be used as crystalline waterproofing admixture for cement mortars and plasters. To waterproof structures such as:

- Building Basement and foundations
- Sewage and water treatment plants
- Dams, canals, Tunnels, Harbours
- Tunnel and subway systems
- Water reservoirs
- Concrete pipes
- Parking structures
- Pre-Cast, Cast-in-Place and Shotcrete applications
- Swimming pools
- Retaining walls & sea defense walls

Technical Data

Aspect	Free Flowing grey powder
Bulk density	1.350 ± 0.02 gm/cm ³
Chloride content	“chloride free”to EN 934

Features And Benefits

- Crystalline cementitious material
- Integral addition
- Reduces concrete permeability
- Allows concrete to breathe
- Non toxic
- Becomes an integral part of the concrete.
- Reduces penetration of water and other liquids
- Can seal hairline cracks up to 0.4 mm.
- Resists positive and negative side
- Reduces penetration of water and other liquids
- Can seal hairline cracks up to 0.4 mm.
- Resists positive and negative side

Dosage

MasterLife® WP 3760, As a guide, a dosage of 1-2.5% of cementitious content is recommended. Typical dosage is 2% of cementitious content. For addition to ready mix concrete, a typical dosage of 7 kg per cubic meter of concrete is best recommended. For addition information on **MasterLife® WP 3760** or on its use in developing concrete mixes with special performance characteristics, contact your local Master Builders Solutions representative.

Packaging

MasterLife® WP 3760 is available in 20 kg pack.

Shelf life

MasterLife® WP 3760 must be stored where temperatures do not drop below +5°C. Shelf life is 6 months when stored as above. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult your local Master Builders Solutions representative.



MasterLife® WP 701

Description Of Product

MasterLife® WP 701, is a concrete admixture that improves concrete's impermeability against capillary water absorption and reduces concrete's mixing water with limited air entrainment.

Fields Of Application

- Concrete subjected to water pressure
- Below ground construction
- Retaining walls
- Water retaining structures
- Concrete walls and slabs
- Precast wet or dry concrete

Features And Benefits

- Improves impermeability against capillary water absorption compared to concrete without admixture.
- Improves permanency by reducing water / cement ratio without decreasing workability.
- Reduces segregation and bleeding.
- Enables easy setting and pumpability of concrete.
- Makes it easier to obtain surface finish.
- **MasterLife® WP 701** does not contain chloride.

Dosage

The normally recommended dosage rate of **MasterLife® WP 701** is approximately:

- By Weight - 0.5 to 0.8 kg per 100 kg of cement (binder) content.

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect.

Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact with Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti Technical Services Department for dosage rate guidance.

Packaging

MasterLife® WP 701 is available in bulk, 1000 kg-IBCs and 30 kg cans.

Shelf life

MasterLife® WP 701 12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Appearance	Brown
Density @ 20°C:	1.053-1.093 kg/lt
Alkali content (%):	≤ 10.0 (by mass)
Chloride content (%):	≤ 0.10 (by mass)
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterLife® SRA 320

Description Of Product

MasterLife® SRA 320, contains a very efficient water reducing agent, a shrinkage compensating component and thixotropic agents. It is added to cement at a rate of 3 - 6% by weight of cement to make a pumpable, thixotropic grout with a low water/cement ratio. Due to the strong water reduction effect a w/c ratio of approximately 0.25 can be used. This allows the grout to achieve very high early and final strengths. **MasterLife® SRA 320** has a very long working time to enable complete filling of the anchor hole or duct.

Fields Of Application

- Bolts and anchors in rock and soil
- Dowel grouting
- Duct and cable grouting
- **MasterLife® SRA 320** is designed specifically for rock bolts and rock anchors using both normal steel anchors and tube anchors. It is ideal for overhead applications because of its

thixotropic nature, preventing the grout from running out of the drill hole. Due to its shrinkage compensating properties, it secures the bonding between anchor and rock, and ensures the steel of the anchor or rockbolt is not exposed to chemical attack. Without **MasterLife® SRA 320**, the grout's drying shrinkage reduces the bond of the grout to both the steel anchor and the surrounding rock/soil.

Packaging

MasterLife® SRA 320 is available in 10 kg bags

Shelf life

If stored in unopened bags in a dry cool place **MasterLife® SRA 320** has a shelf life of at least 12 months. Do not use the product if the bag has been opened for more than one month

Technical Data

Form	Pale Grey Powder
Ph Value	>12 as grout mix(as with all cement grouts)
Solubility	Low
Added Chloride	Zero



MasterLife® SRA 865

Description Of Product

MasterLife® SRA 865, is an acrylic copolymer based admixture designed for glass fiber reinforced concrete without leading to alkali silica reaction and it increases the abrasion resistance and durability of the product by reducing the water requirement of mortar and concrete. Also it provides internal curing.

Fields Of Application

- Fiber-reinforced concrete systems
- Cement based composites
- Mortar and concrete repair solutions

Features And Benefits

- Improves the flexural and tensile strength.
- Provides self-curing for mortar/concrete without any need for water curing.
- Reduces cracks formed during strength development by reducing shrinkage through proper mix design.
- Improves resistance against water, oil and salt solutions.
- Improves durability and hardness of the mortar/concrete.
- Improves resistance to freezing-thawing cycles.

Dosage

As a starting point the following dosage rate is recommended;

By Weight - 10 to 14 kg per 100 kg of cement (binder). The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect. For specific shrinkage reduction levels it is recommended that the performance of the **MasterLife® SRA 865** is established by comparing different dosage rates to a reference concrete without any **MasterLife® SRA 865**.

Where the concrete is to be machine finished by utilizing power float or power trowelling methods, we recommend that you contact with Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Department for dosage rate guidance.

Packaging

MasterLife® SRA 865 is supplied in 1000-kg IBC's, 210 kg barrels and 30-kg canes.

Shelf life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Appearance	White
Specific gravity @ 20°C	1.01-1.04 kg/l
pH-value	7-9
Service Temperature	-20 °C +80 °C



Synthetic Fibers



MasterFiber® 15

Description Of Product

MasterFiber® 15, Multifilament and monofilament products, floating in water, inflammable in fire, insoluble in mix and cut to lengths 3, 6, 9, 12, 15 and 19 mm are available in standard 900 gram paper packs for use.

Features And Benefits

- Improve the resistance of concrete against abrasive chemicals,
- Improve the surface abrasive strength of concrete,
- Increase the service life of and secures fatigue strength to concrete,
- Reduce the impermeability of concrete,
- Improve the impact resistance of concrete,
- Preclude the swelling of concrete in slip forms,
- Are not influenced by acids and bases,

- Do not dissolve and decompose by time,
- Delay the corrosion and rusting of reinforcement,
- Improve the resistance of concrete against abrasive chemicals.

Consumption

Type	Heavy duty (F)	Interior (M)	Exterior (F)
Min. dose (m³)	1800 g	600 g	900 g
Length (mm)	15,19,25	9,12,15	9,12,15,19,25
Impact	3600 g	1200 g	1800 g

Technical Data

Properties	MasterFiber 15 MF	MasterFiber 15 FIB
Purity	100% PP	100% PP
Length	3 - 6 - 9 - 12 - 15 - 19 - 25 - 31 - 38 mm	
Cross-section	Circular	Square, rectangular
Elongation	%25	%25
Specific density	0,91 gr/cm³	0,91 gr/cm³
Color	Transparent (natural)	Transparent (natural)
Tensile stress	500-700 N /mm²	400- 600 N/mm²
Softening	145° C	145° C
Melting	160° C	160° C
Acid reaction	Stationary	Stationary
Oxidizer reaction	Stationary	Stationary
Alkali reaction	Stationary	Stationary
Biologic reaction	Stationary	Stationary
Organic reaction	Produces chlorine-containing solvents at high	
Thermal shrinkage	In air, 30 minutes, 130°C = % 0 In water, 30 minutes, 100°C = % 0	
Compatibility with cement	Excellent	Excellent
Wear resistance	Stationary	Stationary
Antibacterality	Optional	Optional
Hygroscopic coefficient	%70	



MasterFiber® 155

Description Of Product

MasterFiber® 155 can be used for structural purposes in concrete, mortar and grout.

Features and Benefits

- Improves the ductility of concrete
- Transfers tensile stresses and bridges cracks incementitious applications
- Decreases crack propensity due to constraineddeformations induced by drying shrinkage and temperature gradients and allows to partially or fullysubstitute related mesh reinforcement
- Can be considered as structural reinforcement accordingto Model Code
- Excellent resistance in alkaline and acidic

- environment
- Provides rust free reinforcing solutions
- Easy to dose with limited impact on workability
- Safe to handle
- No negative impact regarding machinery wear

Dosage

1.5 –9 kg/m³

Higher dosages are generally possible but substantial re-design of a given concrete mix design is required

Packaging

MasterFiber® 155 Water soluble bundles in 5 kg boxes For other packaging options please contact us.

Technical Data

Polymer type	Polypropylene
Colour	Colourless
Density	0,91 kg/m ³
Fiber class	II
Fiber longitudinal shape	Embossed
Fiber sectional shape	rectangular
Equivalent diameter	0,93 mm
Fiber length	55 mm
Aspect ratio	59
Influence on consistency of concrete	4 kg/m ³
Fiber dosage	6 s
Vébé-Time with fiber	
Tensile strength	500 MPa
Modulus (secant) of elasticity	5000 MPa
Melting point TS	ca. 150–170°C
Ignition point Ti	ca. 350°C



MasterFiber® 255

Description Of Product

MasterFiber® 255, High performance polypropylene macro fiber, class II according to EN 14889-2

Features And Benefits

- Improves the ductility of concrete
- Transfers tensile stresses and bridges cracks in cementitious applications
- Decreases crack propensity due to constrained deformations induced by drying shrinkage and temperature gradients and allows to partially or fully substitute related mesh reinforcement
- Can be considered as structural reinforcement according to Model Code
- Excellent resistance in alkaline and acidic environment
- Provides rust free reinforcing solutions

- Easy to dose with limited impact on workability
- Safe to handle
- No negative impact regarding machinery wear

Dosage

MasterFiber® 255 2.5 – 10.0 kg/m³

Higher dosages are generally possible but substantial re-design of a given concrete mix design is required.

Packaging

MasterFiber® 255 Water soluble bundles in degradable paper bag (3 kg) For other packaging options please contact us.

Technical Data

Polymer type	Polypropylene
Colour	Colourless
Density	0,91 kg/m ³
Fiber class	II
Fiber longitudinal shape	Embossed
Fiber sectional shape	Irregular
Equivalent diameter	0,70 mm
Fiber length	55 mm
Aspect ratio	79
Influence on consistency of concrete	4 kg/m ³
Fiber dosage	6 s
Vébé-Time with fiber	
Tensile strength	470 MPa
Modulus (secant) of elasticity	6000 MPa
Young's modulus	> 8000 MPa
Melting point TS	ca. 150 – 170 °C
Ignition point Ti	ca. 350 °C



MasterFiber® 320

Description Of Product

MasterFiber 320, This fiber is supposed to be used for structural purposes in concrete, mortar and grout. It fulfils the requirements of

Fields Of Application

- Pavement
- Industrial flooring
- Precast elements
- Drying shrinkage reinforcement

Features And Benefits

- Improves the ductility of concrete
- Transfers tensile stresses and bridges cracks in cementitious applications
- Decreases crack propensity due to constrained deformations induced by drying shrinkage and temperature gradients
- Can be considered as structural reinforcement according to Model Code
- Excellent resistance in alkaline and acidic environment

Technical Data

Polymer type	Polypropylene
Colour	Greyish
Density	0,9 kg/m ³
Fiber longitudinal shape	Twisted bundle of single fibers
Fiber sectional shape	Irregular
Fiber length	54 mm
Tensile strength	550-750 MPa
Modulus of elasticity	8 GPa
Melting point TS	ca. 150 – 170 °C
Ignition point Ti	ca. 350 °C

- Provides rust free reinforcing solutions
- Easy to dose with limited impact on workability
- Safe to handle
- No negative impact regarding machinery wear

Dosage

MasterFiber 320 1.0 – 4.0 kg/m³

Higher dosages are generally possible but substantial re-design of a given concrete mix design is required.

Packaging

MasterFiber 320 Loose in degradable paper bags (1 kg), 10 bags in a carton box. For other packaging options please contact us

Shelf life

Fibers should be stored in original packaging between +5 °C and +30 °C in a closed room protected from humidity and direct sun light. In addition fibers should be protected against fire. The disposal of the product and its packaging is the responsibility of the end user. Please take into account requirements according to local legislation.



Concrete Auxliaries



MasterKure® 101

Description Of Product

MasterKure® 101, is an acrylic emulsion based evaporation reducer which is applied on freshly poured concrete to enable optimum strength by holding water inside the concrete with its film layer and reducing shrinkage by preventing rapid drying.

Fields Of Application

- While curing vertical and horizontal structural elements
- High-rise concrete buildings for which water curing is hard.
- Airport and field concrete
- Channel and chute concrete
- Concrete pouring where humidity is low, evaporation and air flow is high.
- Surface hardening applications
- Surface to be coated with plaster, grout, paint, tiles and epoxy resins.

Features And Benefits

- Enables hydration of cement by forming a film layer to hold the moisture in the concrete.
- A more efficient and economical method compared to similar cure methods like sack, burlap and watering.
- Enables harder and smoother surface.

- Reduces shrinkage cracks caused by rapid drying.
- All cement and resin based applications can be applied on cured surface.
- Suitable to use in closed areas.
- Easy to apply, reduces labor costs.
- **MasterKure® 101** does not contain solvent.

Coverage

MasterKure® 101 recommended coverage is 0,20 kg/m²-0,25 kg/m². For cementitious dry shakes applications recommended coverage is 0,15 kg/m²-0,20 kg/m². In open air and windy environments, **MasterKure® 101**'s coverage can be increased 0,30 kg/m² for effective curing. Coverage is reduced in inner surfaces under shadow. Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti. Technical Service should be consulted for detailed information.

Packaging

MasterKure® 101 is available in 220 kg barrels and 30 kg cans.

Shelf life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Acrylic Emulsion Based
Appearance	Clear liquid
Specific gravity @ 20°C	0.95- 1.00 kg/lt
Finished Film Appearance	Opaque layer
Drying Time ASTM C 309	2 hours 15 minutes



MasterKure® 181

Description Of Product

MasterKure® 181, is a resin based evaporation reducer which is applied on freshly poured concrete to enable optimum strength by holding water inside the concrete with its film layer and reducing shrinkage by preventing rapid drying.

Fields Of Application

- While curing vertical and horizontal structural elements
- High-rise concrete buildings for which water curing is hard.
- Airport and field concrete
- Channel and chute concrete
- Concrete pouring where humidity is low, evaporation and air flow is high.
- Surface hardening applications
- Surface to be coated with epoxy flooring

Features And Benefits

- A more efficient and economical method compared to similar cure methods like sack, burlap and irrigation.
- Forms a semi-dull surface
- Reduces shrinkage cracks caused by rapid drying.
- Enables a harder and smooth surface.
- When applied in fresh concrete, it doesn't leave layers, strip off from surface or cause dusting.

- Enables perfect consistency with epoxy and polyurethane based coatings.
- Enables better curing compared to paraffin based cures.
- Easy to apply, reduces labor costs.

Coverage

MasterKure® 181 recommended coverage is 0.15-0.17 kg/m² In open air and windy environments, **MasterKure® 181**'s coverage can be increased 0,30 kg/m² for effective curing. Coverage is reduced in inner surfaces under shadow. Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Service should be consulted for detailed information.

Packaging

MasterKure® 181 is available in 165 kg barrels.

Shelf life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Resin Based
Appearance	Clear liquid
Specific gravity @ 20°C	0.82 kg/lt
Finished Film Appearance	Opaque layer
Drying Time ASTM C 309	45 minutes
Flash Point	+88 °C



MasterKure® 215

Description Of Product

MasterKure® 215, is a paraffin based evaporation reducer which is applied on freshly poured concrete to enable optimum strength by holding water inside the concrete with its film layer and reducing shrinkage by preventing rapid drying.

Fields Of Application

- While curing vertical and horizontal structural elements
- High-rise concrete buildings for which water curing is hard.
- Airport and field concrete
- Channel and chute concrete
- Concrete pouring where humidity is low, evaporation and air flow is high.

Features And Benefits

- A more efficient and economical method compared to similar cure methods like sack, burlap and watering.
- By reflecting the direct sunlight, it reduces the risk of losing water in fresh concrete.
- Reduces shrinkage cracks caused by rapid drying.
- Enables harder and smoother surface.

- Suitable to use in closed areas.
- Easy to apply, reduces labor costs.
- **MasterKure® 215** does not contain solvent.

Coverage

MasterKure® 215 recommended coverage is 0.15-0.20 kg/m² In open air and windy environments, **MasterKure® 215**'s coverage can be increased 0,30 kg/m² for effective curing. Coverage is reduced in inner surfaces under shadow. Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti. Technical Service should be consulted for detailed information.

Packaging

MasterKure® 215 is available in 1000 kg IBCs, 200 kg barrels and 25 kg cans.

Shelf life

6 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Paraffin Based
Appearance	Clear liquid
Specific gravity @ 20°C	0.97 kg/lt
Finished Film Appearance	Opaque layer
Application Temperature	>5 °C



MasterKure® 220 WB

Description Of Product

MasterKure® 220WB, is an acrylic emulsion based evaporation reducer which is applied on freshly poured concrete to enable optimum strength by holding water inside the concrete with its film layer and reducing shrinkage by preventing rapid drying.

Fields Of Application

- While curing vertical and horizontal structural elements
- High-rise concrete buildings for which water curing is hard.
- Airport and field concrete
- Channel and chute concrete
- Concrete pouring where humidity is low, evaporation and air flow is high.
- Surface hardening applications
- Surface to be coated with plaster, grout, paint, tiles and epoxy resins.

Features And Benefits

- Enables hydration of cement by forming a film layer to hold the moisture in the concrete.
- A more efficient and economical method compared to similar cure methods like sack, burlap and watering.
- Enables harder and smoother surface.
- Reduces shrinkage cracks caused by rapid drying.
- All cement and resin based applications can be applied on cured surface.

Technical Data

Structure of the Material	Acrylic Emulsion Based
Appearance	White
Specific gravity @ 20°C	0.97- 1.03 kg/lt
Finished Film Appearance	Opaque layer
Drying Time ASTM C 309	2 hours 15 minutes

- Suitable to use in closed areas.
- Easy to apply, reduces labor costs.
- MasterKure® 220WB** does not contain solvent.

Coverage

MasterKure® 220WB recommended coverage is 0,15 kg/m²-0,20 kg/m². In open air and windy environments, **MasterKure® 220WB**'s coverage can be increased 0,30 kg/m² for effective curing. Coverage is reduced in inner surfaces under shadow. Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Service should be consulted for detailed information.

Packaging

MasterKure® 220WB is available in 200 kg barrels and 20 kg cans.

Shelf life

6 months if stored according to manufacturer's instructions in unopened container.



MasterFinish® 235 J

Description Of Product

MasterFinish® 235J, is a ready-to-use water emulsion based on non-toxic, non-irritant, and mineral oils.

MasterFinish® 235J has been specially formulated to give an easy and complete release of the concrete from the forms and a significantly improved quality of the concrete surface which is smooth, homogeneous and free of pin-holes.

Fields Of Application

MasterFinish® 235J may be applied on wood, metal, polyester or plywood molds, where excellent surface finish and optimum release are required.

Features And Benefits

- Enables easy stripping of form and reduces cleaning of form by reducing adhesion between form and concrete.
- Extends usage period of the form.
- Highly reduces holes and surface errors on concrete surface, enables obtaining aesthetic surfaces.

- Reduces corrosion risk on the form.
- Eliminates environment and health risks
- Does not cause stains or color differences on concrete surface.
- Suitable for steam cure.

Dosage

The coverage of MasterFinish® 235J depends upon the application method. If applied uniformly by a sprayer at a constant pressure of 4 bars on metallic or on impervious material the coverage rate is 40 m²/liter. When it is applied by roll, coverage rate is 25 m²/liter.

Packaging

MasterFinish® 235J is available in 210-lt. barrels and 30-lt. cans.

Shelf life

24 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Vegetable oil Emulsion
Appearance	Oil yellow bright liquid
Specific gravity @ 20°C	0.850 – 0,865 kg/lit
pH-value	6-7
Viscosity@ 20°C	55-100 cP



MasterFinish® RL 236

Description Of Product

MasterFinish® RL 236, is a ready-to-use release agent which is non-toxic, non-irritant and can be easily degraded biologically in line with OECD 301 criteria.

MasterFinish® RL 236 has been specially formulated with value-added additives to give an easy and complete release of the concrete from the forms and a significantly improved quality of the concrete surface which is smooth, homogeneous and free of bug holes.

Fields Of Application

MasterFinish® RL 236 may be applied on wood, metal, polyester or plywood molds. It is only recommended in job-site applications. Precast application is not suggested.

Features And Benefits

- Enables easy stripping of form and reduces cleaning of form by reducing adhesion between form and concrete.
- Highly reduces holes and surface errors on concrete surface, enables obtaining aesthetic surfaces.
- Easy to apply
- Ready-to-use and no need to dilute with water
- Reduces form and labor cost
- Helps to remove concrete residuals on the form and enables an easy cleaning.

- Creates less bug holes on finished concrete surface than mineral oil based release agents
- It is safe and eliminates many health and environmental risks as compared to the traditional form release agents based on mineral oils and thus can be used with the maximum confidence by the workers on the job site.
- Having a high flash point, any possible fire threats are avoided in warehouses
- Having a low viscosity, application with a pump is easier and treatment dosage is low.

Dosage

The coverage of **MasterFinish® RL 236** depends upon the application method. If applied uniformly by a sprayer at a constant pressure of 4 bars on metallic or on impervious material the coverage rate is 60-100 m²/liter. When it is applied by roll/brush, coverage rate is 25 m²/liter.

Packaging

MasterFinish® RL 236 is available in 200 liter barrels and 30 liter cans.

Shelf life

24 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Vegetable oil
Appearance	White emulsion
Specific gravity @ 20°C	0.98 –1 kg/lt
Flash Point	>150 °C



MasterFinish® 257P

Description Of Product

MasterFinish® 257P, is a ready-to-use water emulsion based on non-toxic, non-irritant, and vegetable oils.

MasterFinish® 257P has been specially formulated to give an easy and complete release of the concrete from the forms and a significantly improved quality of the concrete surface which is smooth, homogeneous and free of pin-holes.

Fields Of Application

MasterFinish® 257P may be applied on wood, metal, polyester or plywood molds, where excellent surface finish and optimum release are required.

Features And Benefits

MasterFinish® 257P gives an improved exposed surface of concrete economically by reducing the application time, quicker stripping, easier and faster cleaning of the forms and increased life of the formworks.

It is safe and eliminates many health and environmental risks as compared to the traditional form release agents based on mineral oils and thus can be used with the maximum confidence by the workers on the job site.

- Enables easy stripping of form and reduces cleaning of form by reducing adhesion between form and concrete.

- Extends usage period of the form.
- Highly reduces holes and surface errors on concrete surface, enables obtaining aesthetic surfaces.
- Reduces corrosion risk on the form.
- Eliminates environment and health risks
- Does not cause stains or color differences on concrete surface.
- Suitable for steam cure.

Dosage

The coverage of **MasterFinish® 257P** depends upon the application method. If applied uniformly by a sprayer at a constant pressure of 4 bars on metallic or on impervious material the coverage rate is 60-100 m²/liter. When it is applied by roll/brush, coverage rate is 25 m²/liter.

Packaging

MasterFinish® 257P is available in 1000-kg tanks and 210-kg barrels.

Shelf life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Vegetable oil Emulsion
Appearance	White liquid emulsion
Specific gravity @ 20°C	0.9 – 1.0 kg/l
pH-value	7 - 8
Viscosity@ 20°C	15-20 cP



Admixtures for Mortar

MORTAR ADMIXTURES PRODUCT SUGGESTION TABLE

<i>Products</i>	<i>Adherence Improver</i>	<i>Impermeability Improver</i>	<i>Easy Workability</i>	<i>Set Retarder</i>	<i>In Mortar, Plasters and Screed</i>
MasterCast® 125	•	•			•
MasterCast® 125 MF	•	•			•
MasterAir MA® 1		•	•		•
MasterCast® 301		•	•		•
MasterRheobuild® 1033			•		•

**May retard setting time up to 24,48,72 hours depending on dosage*



MasterCast® 125

Description

MasterCast® 125, is acrylic dispersion based admixture used in plasters and grouts to increase adherence and impermeability.

Fields Of Application

- In inner areas for vertical and horizontal applications.
- In mortars, plasters, and grouts.
- As adherence admixture in mortars prepared for repairs.

Features and Benefits

- Forms strong and durable binding.
- Enables excellent adherence and impermeability.
- Increases strength against water, oil, and salt solvents.

- Improves strength to Freezing-Thawing cycle.
- Reduces tensions in wide areas by increasing flexural strength.
- Enables hardening without cracks by reduced contraction.
- Gives strength against saponification, does not contain additives that cause corrosion.

Packaging

MasterCast® 125 is supplied in 30 kg and 5 kg canes.

Shelf Life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Modified Acrylic Dispersion
Appearance	White
Specific gravity @ 20°C	1.08 kg/lt
pH-value	7-9
Application ground temperature	+5°C +35°C
Service Temperature	-20 °C +80°C
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterCast® 125 MF

Description

MasterCast® 125 MF, is acrylic dispersion based admixture used in plasters and grouts to increase adherence and impermeability.

Fields Of Application

- In inner areas for vertical and horizontal applications.
- In mortars, plasters, and grouts.
- As adherence admixture in mortars prepared for repairs.

Features and Benefits

- Forms strong and durable binding.
- Enables excellent adherence and impermeability.

- Increases strength against water, oil, and salt solvents.
- Improves strength to Freezing-Thawing cycle.
- Reduces tensions in wide areas by increasing flexural strength.
- Enables hardening without cracks by reduced contraction.

Packaging

MasterCast® 125 MF is supplied in 1000 kg IBCs.

Shelf Life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Water Based Acrylic Ester Dispersion
Appearance	White
Specific gravity @ 20°C	1.02 kg/lit
pH-value	7-9
Application ground temperature	+5°C +35°C
Service Temperature	-20°C +80°C
Corrosion behaviour	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterAir® MA 1

Description

MasterAir® MA 1, is a high performance plasticizer/ air entraining mortar admixture that can be used combined with **MasterSet® R 2** in summer and winter seasons in ready mixed fresh plaster production.

Fields Of Application

- In the production of fresh, coarse and fine plaster.
- In mortars used in the manufacturing of bricks and ytongs.
- In plaster mortars where long-time workability is desired. (can be workable for 24, 48, 72 hours)
- In plaster mortars where impermeability is desired to be improved.

Features and Benefits

- Improves plaster's neatness and workability by entraining controlled air bubbles into the plaster.
- Improves strength to Freeze-Thaw cycle.
- Reduces segregation and efflorescence effects seen in plain plasters.
- It is economical.
- Increases mechanic strengths of mortar by the

reduction in mixing water.

- In combined applications with **MasterAir® MA 1**, retards initial set and final set

Dosage

MasterAir® MA 1, is suggested to be used as 0.1-0.6 kg for 100 kg binder (cement-micro silica-flyash). The dosage to be used must be determined before hand by laboratory experiments according to concrete class and properties. Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti.Technical Service must be consulted for detailed information.

Packaging

MasterAir® MA 1 is supplied in 1000 kg- IBC's, 30-kg cans

Shelf Life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Appearance	Light brown liquid
Specific gravity @ 20°C	1 – 1.1 kg/lt
pH-value	5-6
Chloride content (%)	≤ 0.10 (by mass)
Application Ground Temperature	+5°C +35°C
Service Temperature	-20°C +80°C



MasterRheobuild® 1033

Description

MasterRheobuild® 1033, is a melamine sulphonate based high range water reducing/ superplasticizer admixture that improves the early and final strengths of concrete by giving Rheoplastic property.

Fields Of Application

- Concrete where high plasticity, normal-setting characteristics and accelerated strengths are desired
- Prestressed, precast and ready-mixed concrete applications
- Civil and mining applications

Features and Benefits

- Less dependence on consolidation energy
- Job time and cost reduced through higher productivity rates and/or educed labor
- Early strength allows for accelerated construction methods, resulting in completion dates ahead of schedule
- Engineering specification changes can allow for greater limits on the free-fall of concrete, lift heights, concrete temperatures and potential economic mixture adjustments.

Plastic State:

- Controlled set times
- Cohesive and non-segregating
- Minimal bleed water

Hardened State:

- Higher earlier strengths than can be achieved with conventional high-range
- Water reducers
- Increased ultimate compressive strength
- Higher modulus of elasticity
- Improved bond strength to steel
- Low permeability
- High durability
- Reduced shrinkage and creep
- Highly reliable in-place structural integrity

Dosage

MasterRheobuild® 1033 is suggested to be used as 1.0-2.0 kg for 100 kg binder (cement-microsilica-fly ash). The dosage to be used must be determined beforehand by laboratory experiments according to concrete class and properties. Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Service Department must be consulted for detailed information.

Packaging

30 kg can

Shelf Life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Structure of the Material	Melamine Sulphonate Based
Appearance	Opaque
Specific gravity @ 20°C	1.19 - 1.21 kg/l
pH-value	8-11
Alkali content (%)	≤ 10.00 (by mass)
Chloride content (%)	≤ 0.10 (by mass)
Corrosion behavior	Contains only components according to BS EN 934-1:2008, Annex A.1
Dangerous substances	Comply with annex AZ.



MasterCast® 301

Description

MasterCast® 301, is a high performance micro air entraining mortar admixture designed to improve impermeability, workability, and Freeze-Thaw resistance in plaster mortars.

Fields Of Application

- In inner-outer spaces for vertical applications.
- In plaster mortars to improve impermeability.
- In brick and stone coating mortars for improving workability.

Features and Benefits

- Has homogenous air entraining property.
- Reduces segregation and efflorescence effects which can be seen on mortars without admixture.
- Improves neatness and workability properties in mortars.
- Improves strength to Freeze-Thaw cycle.
- It is economical

Dosage

The normally recommended dosage rate of **MasterCast® 301** is approximately:

- By Weight – 3 to 5 kg per 100 kg of cement (binder) content.

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilized in special cases according to specific job conditions. If required consult Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd.Şti Technical Services Department for advice. Trial mixes should be carried out to ensure optimum dosage and effect.

Packaging

MasterCast® 301 is supplied in 20-kg canes.

Shelf Life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Appearance	Yellow
Specific gravity @ 20°C	1.0 – 1.1 kg/lt
pH-value	10-11
Application ground temperature	+5°C +35°C
Service Temperature	-20°C +80°C



Asphalt Additives



MasterLife® PAV 100

Description

MasterLife® PAV 100, is an anti-stripping asphalt additive that increases stripping strength by ensuring that the bitumen adheres to the aggregate better

Fields Of Application

- Bitumen hot mixture (BHM)
- Wearing layer
- Surface dressing

Features and Benefits

One of the most important characteristics that affects the lifetime of the road for bitumen coatings is ensuring sufficient adhesion by decreasing the tension between the aggregate and the bitumen. Certain deteriorations such as releveling, breakage, pit, crack occur because the bitumen is stripped off the aggregate surface and because the stripping strength is not sufficient. Stripping strength depends principally on the geological and mineralogical characteristics of the aggregate.

MasterLife® PAV 100 increases stripping strength by ensuring that the bitumen adheres to the aggregate better

Dosage

MasterLife® PAV 100, is mixed to the bitumen tank in ratios of 0,1% and 0,4%. Application dosage varies according to the geological characteristics of the aggregate. General application dosage is 0,2%.

Packaging

MasterLife® PAV 100, is supplied as 900 kg IBC, 180 kg barrel and in bulk.

Shelf Life

MasterLife® PAV 100, 24 months if stored in unopened packages in accordance with the guidelines of the manufacturer

Technical Data

Appearance	Dark Brown Liquid		
Density (at 20°C)	0,9-0,95 kg/lit		
pH	>8		
Boiling Point (15% solution – 760 mmHg)	350 °C		
Flash Point (Open Cup)	AC 50/70 Bitumen + %0,1 MasterLife PAV 100	AC 50/70 Bitumen + %0,2 MasterLife PAV 100	Aproval 2013 Limits
	280	285	
Viscosity cps @40 °C	300-500		



MasterLife® PAV 101

Description

MasterLife® PAV 101, is an anti-stripping asphalt additive that increases stripping strength by ensuring that the bitumen adheres to the aggregate better.

Fields Of Application

- Bitumen hot mixture (BHM)
- Wearing layer
- Surface dressing

Features and Benefits

One of the most important characteristics that affects the lifetime of the road for bitumen coatings is ensuring sufficient adhesion by decreasing the tension between the aggregate and the bitumen. Certain deteriorations such as reeling, breakage, pit, crack occur because the bitumen is stripped off the aggregate surface and because the stripping strength is not sufficient. Stripping strength depends principally on the geological and mineralogical characteristics of the aggregate.

MasterLife® PAV 101 increases stripping strength by ensuring that the bitumen adheres to the aggregate better.

Dosage

MasterLife® PAV 101, is mixed to the bitumen tank in ratios of 0,1% and 0,4%. Application dosage varies according to the geological characteristics of the aggregate. General application dosage is 0,2%.

Packaging

MasterLife® PAV 101, is supplied as 900 kg IBC, 180 kg barrel and in bulk.

Shelf Life

MasterLife® PAV 101, 24 months if stored in unopened packages in accordance with the guidelines of the manufacturer

Technical Data

Appearance	Dark Brown Liquid		
Density (at 20°C)	0,9-0,95 kg/lit		
pH	>8		
Boiling Point (15% solution – 760 mmHg)	350 °C		
Flash Point (Open Cup)	AC 50/70 Bitumen + %0,1 MasterLife 101	AC 50/70 Bitumen + %0,2 MasterLife 101	Aproval 2013 Limits
	255	260	≥150 °C
Viscosity cps @40 °C	100-300		



MasterLife® PAV 102

Description

MasterLife® PAV 102, is an anti-stripping asphalt additive that increases stripping strength by ensuring that the bitumen adheres to the aggregate better

Fields Of Application

- Bitumen hot mixture (BHM)
- Wearing layer
- Surface dressing

Features and Benefits

One of the most important characteristics that affects the lifetime of the road for bitumen coatings is ensuring sufficient adhesion by decreasing the tension between the aggregate and the bitumen. Certain deteriorations such as releveling, breakage, pit, crack occur because the bitumen is stripped off the aggregate surface and because the stripping strength is not sufficient. Stripping strength depends principally on the geological and mineralogical characteristics of the aggregate.

MasterLife® PAV 102 increases stripping strength by ensuring that the bitumen adheres to the aggregate better.

Dosage

MasterLife® PAV 102, is mixed to the bitumen tank in ratios of 0,1% and 0,4%. Application dosage varies according to the geological characteristics of the aggregate. General application dosage is 0,2%.

Packaging

MasterLife® PAV 102, is supplied as 900 kg IBC, 180 kg barrel and in bulk.

Shelf Life

MasterLife® PAV 102, 24 months if stored in unopened packages in accordance with the guidelines of the manufacturer

Technical Data

Appearance	Dark Brown Liquid		
Density (at 20°C)	0,9-0,95 kg/l		
pH	>8		
Boiling Point (15% solution – 760 mmHg)	350 °C		
Flash Point (Open Cup)	AC 50/70 Bitumen + %0,1 MasterLife PAV 102	AC 50/70 Bitumen + %0,2 MasterLife PAV 102	Aproval 2013 Limits
	250	260	≥150 °C
Viscosity cps @40 °C	150-400		



MasterLife® PAV 130

Description

MasterLife® PAV 130, is a liquid emulsifier for the production of cationic and anionic bitumen emulsions.

Fields Of Application

- For the production of anionic (alkaline) bitumen emulsions which are mainly processed to coatings for sub-surface building sealing.
- As emulsifier for cationic (acidic) bitumen emulsions e. g. for road construction and maintenance.

Features and Benefits

- Suitable for production of 1 and 2 component systems.
- Excellent emulsion stability and broad workability.
- Suitable for the production of emulsions with pH 2 – 14.
- Emulsions may easily be processed with organic and inorganic thickener.

Dosage

The dosage depends on application, type of emulsion and desired stability of the bitumen emulsion. For the production of the emulsions high-shear emulsification equipment (e. g. colloid mills) is recommended.

Packaging

MasterLife® PAV 130, is supplied in 1000 kg IBC and 220 kg drums.

Shelf Life

MasterLife® PAV 130, 12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Appearance	Clear, Yellowish
Specific gravity @ 20°C	App.1 kg/lt
pH-value	4-6
Viscosity (25 °C)	Low viscous
Active content (%)	App. 30%



MasterLife® PAV 500

Description

Cellulose additive, used primarily in Stone Mastic Asphalt (SMA) mixtures, as a bitumen binder modifier. The pellets (cellulose fibre) are made from renewable resources and are environment friendly. At present there is no harmonized EU technical specification covering the use of cellulose fibres in asphalt.

Fields Of Application

- Stone mastic asphalt (SMA)
- Highly trafficked roads
- Highways
- Roads used frequently by heavy trucks
- Bridges, intersections, roundabouts, gradients
- Airport runways
- Parking lots
- Industrial sites
- Loading bays

Features and Benefits

- Provides greater surface area and strength
- Stabilizes binding agent (Bitumen) by helping to maintain its viscosity and reducing its drainage (known as “drain down”)
- Improves workability of the mixture during laying
- Can be used in noise reducing asphalt

- Improves durability of the wearing course
- Increase in water resistance
- Reduction in rutting and improved stability on high trafficked roads
- Recognized as the most cost-efficient and effective fibre filler for SMA applications

Packaging

MasterLife® PAV 500, 500kg FIBC's (Big Bags) on wooden pallets (2 bags per pallet).

Dosage

0.3 – 0.4 %.

Shelf Life

MasterLife® PAV 500, Recommended is dry, cold, indoor storage. The pellet must be protected from sunlight, humidity and temperatures above 35° C. We always recommend to process all materials and do not store it in the mixing plant through the winter. Cellulose fibre is made of recycled paper.

Do not use the pellet if it is wet or has been wet and then was subsequently dried.

Technical Data

Property	Unit of Measure	Specification
Colour	-	Grey granulate
Cellulose fibre content by weight	%	Min.70
Binder Content	%	8-14
Particles fraction below 2,5 mm	mm	Max.5
Pellet diameter-average	mm	4.5 or 6.5
Pellet length-average	mm	2-30
Bulk density	kg/m ³	380-480
Ash content	%	≤ 20
Moisture content	4,5-6	<5
pH	-	7-8
Average cellulose fibre length	mm	1.0 -1.1
Average cellulose fibre diameter	mm	0.045-0.05
Cellulosefibre composition(Sieve analysis)		
-less than 200 um	%	min.30
-less than 800 um	%	min.55
-less than 2500 um	%	min.98



Cement Additives



MasterCem® GA 1130

Description

MasterCem® GA 1130, is a liquid, ready to use cement additive designed to enhance cement performance. In addition to acting as a Grinding Aid in the milling process and a flow aid in cement conveyance, **MasterCem® GA 1130** improves specific cement properties by the activity of its chemical components. These act in the modification of clinker characteristics and in the enhancement of its hydraulic properties.

Products of the **MasterCem® LS 3000** series are specifically designed to increase early and late strength of cement. These benefits can be used either for achieving superior product performance or for cement optimization while maintaining the original performance level. Typical early strength improvement is +10-25% at 1-2 days vs. plain control and 10-15% for late strength versus control sample. However, product performance is dependent on grinding equipment characteristics, process conditions, raw material properties and cement type. To best benefit from cement additives, mill and separator process parameters may need to be adapted.

MasterCem® GA 1130 improves the flow characteristics of cement with positive impact on cement conveyance and reduction of pack-set in storage.

Fields Of Application

MasterCem® GA 1130 is developed for application in the cement grinding process in:

- Ball mills (closed and open circuits)
- Vertical mills
- Other cement grinding systems

Features and Benefits

MasterCem® GA 1130 offers the following benefits to cement producers:

- Cost reduction due to lower unit grinding energy (kWh/t) and optimization of cement fineness and composition while maintaining cement properties.

- Capacity extension due to higher mill throughput and optimized cement recipe.
- Sustainability due to reduced clinker factor and specific CO₂ emissions. Gain of carbon credits
- Product differentiation due to enhanced cement performance and improved properties for the final application.
- Improved cement handling due to faster cement conveyance through the plant and in the distribution logistics. Reduction of plant stops and optimized storage in silos. Very low dust generation during application and therefore a good working environment.

Dosage

MasterCem® GA 1130, can be metered onto the mill feed or injected into the mill. The recommended dosage rate is between 200 and 800 g per ton of cement (0.02-0.08% mass). Other dosages may be required in specific situations. The optimum dosage should be evaluated in plant trials. For further questions please consult our Technical Service.

Calibrated dosing equipment with an adjustable flow rate and appropriate dosage range is recommended to obtain the maximum performance of the product.

Packaging

MasterCem® GA 1130, is available in bulk and 1'000 kg containers (IBC).

Shelf Life

It is recommended to store **MasterCem® GA 1130** at temperatures above 5°C. Pipes should be thermally isolated. If stored in unopened containers according to manufacturer's instructions, the shelf life is a minimum of 12 months

Technical Data

Appearance:	Brownish liquid
Density @ 20°C:	1.130 - 1.190 g/cm ³
pH-value @ 20°C:	5-8



MasterCem® ES 2101

Description

MasterCem® ES 2101, is a liquid, ready-to-use cement additive designed to enhance cement performance. In addition to acting as a Grinding Aid in the milling process and a flow aid in cement conveyance, **MasterCem® ES 2101** improves specific cement properties by the activity of its chemical components. These act in the modification of clinker characteristics and in the enhancement of its hydraulic properties.

Products of the **MasterCem® LS 3000** series are specifically designed to increase early and late strength of cement. These benefits can be used either for achieving superior product performance or for cement optimization while maintaining the original performance level. Typical early strength improvement is +10-25% at 1-2 days vs. plain control and 10-15% for late strength versus control sample. However, product performance is dependent on grinding equipment characteristics, process conditions, raw material properties and cement type. To best benefit from cement additives, mill and separator process parameters may need to be adapted.

MasterCem® ES 2101 improves the flow characteristics of cement with positive impact on cement conveyance and reduction of pack-set in storage.

Fields Of Application

MasterCem® ES 2101 is developed for application in the cement grinding process in:

- Ball mills (closed and open circuits)
- Vertical mills
- Other cement grinding systems

Features and Benefits

MasterCem® ES 2101 offers the following benefits to cement producers:

- Cost reduction due to lower unit grinding energy (kWh/t) and optimization of cement fineness and composition while maintaining cement properties.

- Capacity extension due to higher mill throughput and optimized cement recipe.
- Sustainability due to reduced clinker factor and specific CO₂ emissions. Gain of carbon credits.
- Product differentiation due to enhanced cement performance and improved properties for the final application.
- Improved cement handling due to faster cement conveyance through the plant and in the distribution logistics. Reduction of plant stops and optimized storage in silos. Very low dust generation during application and therefore a good working environment.

Dosage

MasterCem® ES 2101, can be metered onto the mill feed or injected into the mill. The recommended dosage rate is between 200 and 800 g per ton of cement (0.02-0.08% mass). Other dosages may be required in specific situations. The optimum dosage should be evaluated in plant trials. For further questions please consult our Technical Service.

Calibrated dosing equipment with an adjustable flow rate and appropriate dosage range is recommended to obtain the maximum performance of the product.

Packaging

MasterCem® ES 2101, is available in bulk and 1'000 kg containers (IBC)

Shelf Life

It is recommended to store **MasterCem® ES 2101** at temperatures above 5°C. Pipes should be thermally isolated. If stored in unopened containers according to manufacturer's instructions, the shelf life is a minimum of 12 months.

Technical Data

Appearance:	Brownish liquid
Density @ 20°C:	1.080 - 1.140 g/cm ³
pH-value @ 20°C:	9-11



MasterCem® ES 2102

Description

MasterCem® ES 2102, is a liquid, ready-to-use cement additive designed to enhance cement performance. In addition to acting as a Grinding Aid in the milling process and a flow aid in cement conveyance, **MasterCem® ES 2102** improves specific cement properties by the activity of its chemical components. These act in the modification of clinker characteristics and in the enhancement of its hydraulic properties. Products of the **MasterCem® LS 3000** series are specifically designed to increase early and late strength of cement. These benefits can be used either for achieving superior product performance or for cement optimization while maintaining the original performance level. Typical early strength improvement is +10-25% at 1-2 days vs. plain control and 10-15% for late strength versus control sample. However, product performance is dependent on grinding equipment characteristics, process conditions, raw material properties and cement type. To best benefit from cement additives, mill and separator process parameters may need to be adapted.

MasterCem® ES 2102 improves the flow characteristics of cement with positive impact on cement conveyance and reduction of pack-set in storage.

Fields Of Application

MasterCem® ES 2102 is developed for application in the cement grinding process in:

- Ball mills (closed and open circuits)
- Vertical mills
- Other cement grinding systems

Features and Benefits

MasterCem® ES 2102 offers the following benefits to cement producers:

- Cost reduction due to lower unit grinding energy (kWh/t) and optimization of cement fineness and composition while maintaining cement properties.

- Capacity extension due to higher mill throughput and optimized cement recipe.
- Sustainability due to reduced clinker factor and specific CO₂ emissions. Gain of carbon credits.
- Product differentiation due to enhanced cement performance and improved properties for the final application.
- Improved cement handling due to faster cement conveyance through the plant and in the distribution logistics. Reduction of plant stops and optimized storage in silos. Very low dust generation during application and therefore a good working environment.

Dosage

MasterCem® ES 2102, can be metered onto the mill feed or injected into the mill. The recommended dosage rate is between 200 and 800 g per ton of cement (0.02-0.08% mass). Other dosages may be required in specific situations. The optimum dosage should be evaluated in plant trials. For further questions please consult our Technical Service.

Calibrated dosing equipment with an adjustable flow rate and appropriate dosage range is recommended to obtain the maximum performance of the product.

Packaging

MasterCem® ES 2102, is available in bulk and 1'000 kg containers (IBC)

Shelf Life

It is recommended to store **MasterCem® ES 2102** at temperatures above 5°C. Pipes should be thermally isolated. If stored in unopened containers according to manufacturer's instructions, the shelf life is a minimum of 12 months.

Technical Data

Appearance:	Brownish liquid
Density @ 20°C:	1.080 - 1.140 g/cm ³
pH-value @ 20°C:	9-11



MasterCem® LS 3057

Description

MasterCem® LS 3057, is a liquid, ready-to-use cement additive designed to enhance cement performance. In addition to acting as a Grinding Aid in the milling process and a flow aid in cement conveyance, **MasterCem® LS 3057** improves specific cement properties by the activity of its chemi-cal components. These act in the modification of clinker characteristics and in the enhancement of its hydraulic properties.

Products of the **MasterCem® LS 3000** series are specifically designed to increase early and late strength of cement. These benefits can be used either for achieving superior product performance or for cement optimization while maintaining the original performance level. Typical early strength improvement is +10-25% at 1-2 days vs. plain control and 10-15% for late strength versus control sample. However, product performance is dependent on grinding equipment characteristics, process conditions, raw material properties and cement type. To best benefit from cement additives, mill and separator process parameters may need to be adapted.

MasterCem® LS 3057 improves the flow characteristics of cement with positive impact on cement conveyance and reduction of pack-set in storage.

Fields Of Application

MasterCem® LS 3057 is developed for application in the cement grinding process in:

- Ball mills (closed and open circuits)
- Vertical mills
- Other cement grinding systems

Features and Benefits

MasterCem® LS 3057 offers the following benefits to cement producers:

- Cost reduction due to lower unit grinding energy (kWh/t) and optimization of cement fineness and composition while maintaining cement properties.

- Capacity extension due to higher mill throughput and optimized cement recipe.
- Sustainability due to reduced clinker factor and specific CO₂ emissions. Gain of carbon credits.
- Product differentiation due to enhanced cement performance and improved properties for the final application.
- Improved cement handling due to faster cement conveyance through the plant and in the distribution logistics. Reduction of plant stops and optimized storage in silos. Very low dust generation during ap-plication and therefore a good working environment.

Dosage

MasterCem® LS 3057, can be metered onto the mill feed or injected into the mill. The recommended dosage rate is between 200 and 800 g per ton of cement (0.02-0.08% mass). Other dosages may be required in specific situations. The optimum dosage should be evaluated in plant trials. For further questions please consult our Technical Service.

Calibrated dosing equipment with an adjustable flow rate and appropriate dosage range is recommended to obtain the maximum performance of the product.

Packaging

MasterCem® LS 3057 is available in bulk and 1'000 kg containers (IBC).

Shelf Life

It is recommended to store **MasterCem® LS 3057** at temperatures above 5°C. Pipes should be thermally isolated. If stored in unopened containers according to manufacturer's instructions, the shelf life is a minimum of 12 months.

Technical Data

Appearance:	Brownish liquid
Density @ 20°C:	1.06 - 1.07 g/cm ³
pH-value @ 20°C:	13-14



MasterCem[®] LS 3735

Description

MasterCem[®] LS 3735, is a liquid, ready-to-use cement additive designed to enhance cement performance. In addition to acting as a Grinding Aid in the milling process and a flow aid in cement conveyance, **MasterCem[®] LS 3735** improves specific cement properties by the activity of its chemi-cal components. These act in the modification of clinker characteristics and in the enhancement of its hydraulic properties.

Products of the **MasterCem[®] LS 3000** series are specifically designed to increase early and late strength of cement. These benefits can be used either for achieving superior product performance or for cement optimization while maintaining the original performance level. Typical early strength improvement is +10-25% at 1-2 days vs. plain control and 10-15% for late strength versus control sample. However, product performance is dependent on grinding equipment characteristics, process conditions, raw material properties and cement type. To best benefit from cement additives, mill and separator process parameters may need to be adapted.

MasterCem[®] LS 3735 improves the flow characteristics of cement with positive impact on cement conveyance and reduction of pack-set in storage.

Fields Of Application

MasterCem[®] LS 3735 is developed for application in the cement grinding process in:

- Ball mills (closed and open circuits)
- Vertical mills
- Other cement grinding systems

Features and Benefits

MasterCem[®] LS 3735 offers the following benefits to cement producers:

- Cost reduction due to lower unit grinding energy (kWh/t) and optimization of cement fineness and composition while maintaining cement properties.

- Capacity extension due to higher mill throughput and optimized cement recipe.
- Sustainability due to reduced clinker factor and specific CO₂ emissions. Gain of carbon credits.
- Product differentiation due to enhanced cement performance and improved properties for the final application.
- Improved cement handling due to faster cement conveyance through the plant and in the distribution logistics. Reduction of plant stops and optimized storage in silos. Very low dust generation during ap-plication and therefore a good working environment.

Dosage

MasterCem[®] LS 3735, can be metered onto the mill feed or injected into the mill. The recommended dosage rate is between 200 and 800 g per ton of cement (0.02-0.08% mass). Other dosages may be required in specific situations. The optimum dosage should be evaluated in plant trials. For further questions please consult our Technical Service.

Calibrated dosing equipment with an adjustable flow rate and appropriate dosage range is recommended to obtain the maximum performance of the product.

Packaging

MasterCem[®] LS 3735 is available in bulk and 1'000 kg containers (IBC)

Shelf Life

It is recommended to store **MasterCem[®] LS 3735** at temperatures above 5°C. Pipes should be thermally isolated. If stored in unopened containers according to manufacturer's instructions, the shelf life is a minimum of 12 months.

Technical Data

Appearance:	Brownish liquid
Density @ 20°C:	1.100 - 1.150 g/cm ³
pH-value @ 20°C:	9-13



Underground Constructions Systems



Sprayed Concrete Systems



MasterGlenium® TC 1500

Description

MasterGlenium® TC 1500, is a new generation admixture based on polycarboxylic ether. Compared to traditional superplasticizers **MasterGlenium® TC 1500** has a more powerful dispersing effect and is designed for wet mix sprayed concrete.

Fields Of Application

The excellent dispersing effect makes **MasterGlenium® TC 1500** the ideal choice for wet mix sprayed concrete where high early and final strengths are required. **MasterGlenium® TC 1500** provides a reduction in water content of approximately 25 - 30% and still achieve the required workability.

- Temporary and final sprayed concrete linings
- Single Shell Linings
- Wet system sprayed concrete applications where high early and final strength is needed
- Backfill grouting applications behind the segments where long term slump retention is needed
- Concrete for underground construction works to meet the highest demands of workability and pumpability combined with strength and durability
- Tunnel lining concrete application during summer season and warm weather
- High quality ready mix concrete
- Enables alone in many applications from normal concrete to self-compacting concrete

Features and Benefits

- Allows for highly workable concrete at the lowest w/c ratio-without segregation and bleeding
- Provides extended open time to allow transportation and placing of the sprayed concrete, even hours after batching
- Provides reduced wear and tear on the pump
- In combination with **MasterRoc® SA 160**, **MasterRoc® SA 187**, **MasterRoc® SA 189** the early setting and strength development of the sprayed concrete can be accelerated
- Greater durability from improved mechanical properties in the concrete
- High early&final strengths
- Reduced permeability due to lower water/cement ratio

Dosage

The consumption of **MasterGlenium® TC 1500** is in the range of 0.8-1.5 kg of the total binder weight. For further information please contact your local Master Builders Solutions representative.

Packaging

MasterGlenium® TC 1500 is available in 1000 kg IBC containers and in bulk.

Shelf Life

12 months if stored according to manufacturer's instructions in unopened container.

Technical Data

Form	Liquid
Colour	Transparent
Density; 20°C	1.083 ± 0.02 kg/liter
Ph Value	4.0 – 5.0
Alkali Content (Na ² O egv)	Max. %3
Chloride Content	<0,1 % by mass



MasterRheobuild® T1

Description

MasterRheobuild®T1, is a superplasticizer designed especially for underground construction works. Compared to traditional superplasticizers **MasterRheobuild®T1** has a more powerful dispersing effect and is designed for wet mix sprayed concrete.

Fields Of Application

The excellent dispersing effect makes **MasterRheobuild®T1** the ideal choice for wet mix sprayed concrete where high early and final strengths are required. **MasterRheobuild®T1** provides a reduction in water content of approximately 25-30% and still achieve the required workability.

This makes it ideal for:

- Temporary and final sprayed concrete linings
- Single Shell Linings
- Wet system sprayed concrete applications where high early and final strength is needed
- Backfill grouting applications behind the segments where long term slump retention is needed
- Concrete for underground construction works to meet the highest demands of workability and pumpability combined with strength and durability
- Tunnel lining concrete applications

Features and Benefits

- Allows for highly workable concrete at the lowest w/c ratio-without segregation and bleeding
- Provides extended open time to allow transportation and placing of the sprayed concrete, even hours after batching

- Provides reduced wear and tear on the pump
- In combination with **MasterRoc® SA 160**, **MasterRoc® SA 187**, **MasterRoc® SA 189** the early setting and strength development of the sprayed concrete can be accelerated
- Greater durability from improved mechanical properties in the concrete
- High early & final strengths
- Reduced permeability due to lower water/cement ratio

Dosage

The consumption of **MasterRheobuild®T1** in the range of 0.8-2.5 kg of the total binder weight. For further information please contact your local Master Builders Solutions representative.

Packaging

MasterRheobuild®T1 is available in 250 kg barrels, 1000 kg IBC containers and in bulk.

Shelf Life

If stored in original unopened containers it will have a shelf life of at least one year.

Technical Data

Form	Liquid
Colour	Transparent
Density; 20°C	1.214 ± 0.03 kg/liter
Ph Value	6.5 – 9.0
Alkali Content (Na ² O egv)	Max. %3
Chloride Content	<0,1 % by mass



MasterRoc® HCA 20

Description

MasterRoc® HCA 20, is a high quality, liquid, non chloride chemical admixture which controls the dynamics of cement hydration. It delays hydration by suspending the hydration process and enabling re-activation hours or even days later with no loss of quality in the hardened sprayed concrete.

When dispensed into wet or dry mixes at the batching plant it fully stabilizes the hydration process by forming a protective barrier around the cement particles.

MasterRoc® HCA 20 can be used with all types of cement minerals (C3S, S3A, C2S, C4AF and gypsum). In order to re-activate the hydration process and accelerate the strength gain in mixes stabilized with **MasterRoc® HCA 20**, **MasterRoc® SA** series of alkali-free accelerators is added at the nozzle or injection point.

Fields Of Application

- Tunneling and mining
- Temporary and permanent support
- Slope stabilization
- Annulus grouting (TBM)
- Cementitious injection systems

Features and Benefits

With the use of **MasterRoc® HCA 20**, wet and dry concrete mixes can be kept workable for up to 3 days. This provides considerable benefits in the batching and utilization of the concrete.

- Fully flexible delivery options for sprayed concrete mixes
- No cleaning of pumps or pipes during work interruptions

- Complete use of wet and dry mixes – no waste disposal
- Time and cost saving
- In addition to these benefits related to its function as a hydration control system, it also provides considerable reduction of rebound and dust.

Consumption

Normal recommended dosage of **MasterRoc® HCA 20** varies between 0.2% - 1% by weight of cement. The required dosage depends on: type of cement used, w/c ratio, ambient and concrete temperature and targeted open time.

Packaging

MasterRoc® HCA 20 is available in standart 1000 kg IBC containers or in bulk.

Shelf Life

Minimum storage temperature for **MasterRoc® HCA 20** is +1°C. If it has frozen, thaw and completely reconstitute with a mild mechanical agitation. Do not use pressurized air for agitation. Please contact your local Master Builders Solutions representative prior to the use of any products that have frozen. The maximum storage temperature for **MasterRoc® HCA 20** is +60°C. Performance tests should always be carried out prior to use. If stored in tightly closed original containers and under the above mentioned conditions, it has a shelf life of at least 12 months.

Technical Data

Form	Liquid
Colour	Red
Density (at +20°C)	1.10 ± 0.02
pH Value	<2
Solubility in Water	Total
Thermal Stability	+1°C
Chloride Content	<0.1%
Physiological Effect	Corrosive



MasterRoc® MS 610

Description

MasterRoc® MS 610, is a high quality silica fume powder for high performance concretes. It changes the porous structure of the concrete making it denser and more resistant to any type of external influence.

Fields Of Application

- Wet-mix sprayed concrete applications
- Pre-cast concrete
- Cast in-situ concrete
- High strength concrete
- Underwater concrete
- Concrete with low cement content
- Annulus grouting (TBM)

Features and Benefits

- Increased strength
- Substantially improved resistance to chemical and mechanical attack

- Prevents bleeding and segregation in fresh concrete
- Reduced accelerator consumption
- Very thick layers possible

Packaging

MasterRoc® MS 610 is supplied in 20 kg plastic bags and big bags.

Shelf Life

If stored dry and in tightly closed original bags, **MasterRoc® MS 610** has a shelf life of at least 12 months.

Technical Data

Form	Powder
Color	Grey
Density	0.55 – 0.7 kg/liter
Chloride Content	<0.1%



MasterRoc® SA 160

Description

MasterRoc® SA 160, is a high performance alkalifree set accelerator for sprayed concrete, whose dosage can be varied to the desired setting and hardening times.

Fields Of Application

- Temporary and permanent ground support in tunneling and mining
- Slope stabilisation
- Also suitable for acceleration of cementitious grouts, such as for annulus grout in TBM tunnels, cemented ground injection and foam concrete.

Features and Benefits

MasterRoc® SA 160 is ideally suited for wet mix sprayed concrete for ground support:

- The quick setting property allows rapid work progress and the ability to construct thick sprayed concrete linings via layered application during one construction sequence.
- The unique product formulation provides fast setting, continuous early-age strength development high durability and good long term strength.
- Very low dust generation during application and therefore a good working environment.

- Possibility of low rebound applications when using the correct nozzle angle and distance.
- Non-aggressive properties provide improved working safety, reduced environmental impact and lower handling costs

Consumption

The consumption of **MasterRoc® SA 160** also depends on the w/c+b ratio, temperature conditions (concrete and ambient), cement reactivity and on required layer thickness, setting time and early strength development. The consumption is normally in the range of 3 to 10% of binder weight. Overdosing (>10%) may result in decreased final strength.

Packaging

MasterRoc® SA 160 is supplied in 300 kg drums, 1400 kg containers or in bulk.

Shelf Life

If stored in tightly closed original containers under the above conditions, it has a shelf life of 6 months. Periodical remixing can extend the shelf life further.

Technical Data

Form	Suspension
Color	Beige
Density (+20°C)	1.44 ± 0.03 g/ml
Ph value (1:1 water solution)	2.5 ± 0.5
Viscosity ¹⁾	675 ± 325 mPa.s
Thermal stability	+5°C to +35°C
[Na ₂ O] EQV. (%bw) Chloride Free	<1%

¹⁾Brookfield, +20°C. Viscosity is dependent on degree of product agitation and temperature.



MasterRoc® SA 545

Description

MasterRoc® SA 545, is a high performance alkalifree, non caustic and non toxic accelerator for use in the dry-mix sprayed concrete process. It is a powder additive whose dosage can be varied to the desired setting and hardening times.

Fields Of Application

MasterRoc® SA 545 is suitable for all applications where high early strength, high final strength and very thick sprayed concrete layers are required.

- For temporary and permanent ground support in tunnelling and mining
- Slope stabilization
- For repair works

Features and Benefits

- Overhead layer thickness of 10-15 cm in a single application
- Rapid work process
- Good early strength development
- Limits the decrease of final strength
- Improves durability as compared to mixes with

traditional accelerators

- Provides an improved working environment
- Reduces salt content in leaching water

Consumption

The consumption of **MasterRoc® SA 545** also depends on the water added, temperature conditions (dry mix and ambient), cement reactivity and on required layer thickness, setting time and early strength development. The consumption is normally in the range of 4 to 8% of binder weight.

Overdosing (>10%) may result in decreased final strength.

Packaging

MasterRoc® SA 545 is supplied in 20 kg bags.

Shelf Life

If stored dry and in tightly closed original bags, **MasterRoc® SA 545** has a shelf life of 12 months. If subjected to humidity, the product loses its effectiveness. Any lumps can simply be crushed by hand. Material which is too hard must be discarded.

Technical Data

Form	Powder
Color	White
Bulk Density	1030 -1100 kg/m ³
Ph value (En Iso 787-9)	4±1
Chloride Content	<0.1%



MasterFiber® 151

Description

MasterFiber® 151, is a fiber extruded from polyolefin polymers and formed into a flat fiber that can be used in concrete mixes for both spray and cast in-situ applications. The inclusion of fibers in a concrete mix will contribute to improving the durability of concrete by increased crack propagation resistance and by its energy absorption characteristics. The fibers will disperse uniformly throughout the concrete mix and effectively act as an anchoring mechanism within the cement matrix thereby improving the toughness and ductility of the material.

MasterFiber® 151 can maximize concrete service life by providing superior resistance to attack from damaging environmental elements such as water, chlorides and corrosive environments such as sewerage conduits and/or saline water.

Fields Of Application

- Wet shotcrete applications in tunneling or mining applications
- Any subsurface construction
- Any structure where impact toughness shall be increased

Features and Benefits

- Easy to dose either at the batch plant or on site concrete mixer truck prior to application.
- Only minor impact on flow & slump properties of fresh concrete.
- High resistance to acid/alkalis attack suitable for use in wet underground conditions and

subsurface constructions exposed to damp conditions.

- Reduces construction time compared to a solution with conventional reinforcement.

Dosage

Add fibers to the concrete mixer after water and admixtures. After addition of the fibers mix for at least 2-3 minutes to ensure even distribution of fibers within the concrete mix. Note that in the event that a slight slump loss is experienced after the addition of the fibers – the mix design should be reviewed such to allow for fiber inclusion and avoidance of addition of extra water.

Site trials with the intended concrete mix design must be conducted to verify and determine the performance of the fiber with the proposed sprayed concrete mix. It is recommended that where automated fiber dosing systems are utilised, that they be checked for suitability and calibrated accordingly.

Packaging

MasterFiber® 151 is wrapped in water-soluble PVA to form bundles. Bundles are filled either in 6kg transparent bags or in big-bags of 450 kg.

Technical Data

Polymer Type	Polyolefin
Colour	Colourless
Shape (Cross Section)	Flat
Shape (Longitudinal)	Straight
Equivalent diameter deq	0,85 mm +/- %50
Length L	50 mm +/- %10
Aspect ratio L/deq	59 +/- %50
Tensile Strength (EN 14889-2)	490 MPa +/- %15
Secant Modulus (EN 14889-2)	4,000 MPa +/- %15
Density	0,91 gr/cm ³
Melting point (°C)	160 - 167°C
Acid/Alkali resistance	High
No of fiber per kg	40000
Shelf-life	24 month



MasterFiber® 156

Description

MasterFiber® 156, is an extruded polypropylene macro synthetic formed into a crimped profile. The sinusoidal shape improves the bond within the concrete. These fibers allow to enhance concrete performances providing toughness and ductility to the material.

MasterFiber® 156, thanks to the very high alkali resistance is strongly advised for FR sprayed concrete to be applied in aggressive areas, where a high chemical resistance is needed, and when corrosion from chlorides can happen. The synthetic macro fibers **MasterFiber® 156** can be easily dispersed in the concrete mix to ensure a homogeneous FR sprayed concrete to avoid the spalling phenomena in case of fire.

Fields Of Application

MasterFiber can be used in many construction applications. it is included

- Concrete reinforcement
- Sprayed concrete
- First tunnel linings
- Face tunnel stability

- Slope reinforcement
- Consolidation of walls
- Concrete segments not structural

Dosage

The dosage of **MasterFiber® 156** can range from 1,5 to 6 kg/m³ of concrete, dosage rates are dependent on the specific application.

The use of macro synthetic fibers **MasterFiber® 156** as a replacement of traditional steel arches can be done after a specific design, by the way it is possible to use these fibers to replace steel meshes.

Packaging

Macro synthetic fibers **MasterFiber® 156** are available in standard packaging in 6 kg plastic bags. Material is very stable, no foreseen hazards.

Technical Data

Type of polymer	Polypropylene Compound
Diameter (mm)	0,91
Fiber lenght (mm)	55
Lenght/diameter ratio	60
Colour	Light grey
Density (g/cm ³)	Approx 1,0
Tensile strenght at yeld (N/mm ²)	560
Elastic modulus (MPa)	3900
Water absorption	None
Acid/alkali resistance	High
Melting point (°C)	155-165
Decomposition temperature (°C)	280



MasterFiber® 155

Description

MasterFiber® 155 is a macro synthetic fibre for concrete and shotcrete.

MasterFiber® 155 has a history within the mining and construction industry and has been used in major tunneling and underground projects around the region. The use of synthetic fibre reinforced shotcrete outperforms mesh reinforced shotcrete with improved crack resistance, ductility, energy absorption and impact resistance. Properly designed synthetic fibre reinforced shotcrete will reduce or eliminate cracking and allow for deformation with ductile stress redistribution.

Fields Of Application

- Ground Support
- Tunnel final linings
- Tunnel repairs
- Slope stabilization
- Retaining walls and soil nailing.

Features and Benefits

- Allows shotcrete to follow the contours of the rock face or ground, giving a consistent thickness, which provides a significant reduction in shotcrete consumption.
- The need to install mesh is eliminated and the decrease in time for which lifting equipment is

needed result in reduction of cycle times and overall costs.

- Elimination of the difficult and dangerous job of installing mesh considerably increases safety on the work site.
- Increases the crack resistance, ductility, energy absorption and toughness of concrete.

Dosage

Dosage	S25 (J)	Dosage	S25 (J)
4	650	7	1050
5	800	8	1100
6	900	9	1200

Packaging

MasterFiber® 155 is supplied in 5 kg boxes.

Technical Data

Length	55mm
Diameter	0.8mm
Aspect Ratio	70
Tensile Strength	300 MPa
Length	55mm



MasterFiber® 255

Description

MasterFiber® 255 According to EN 14889-2 this fiber is supposed to be used for structural purposes in concrete, mortar and grout.

Features and Benefits

- Improves the ductility of concrete
- Transfers tensile stresses and bridges cracks in cementitious applications
- Decreases crack propensity due to constrained deformations induced by drying shrinkage and temperature gradients and allows to partially or fully substitute related mesh reinforcement
- Can be considered as structural reinforcement according to Model Code
- Excellent resistance in alkaline and acidic environment

- Provides rust free reinforcing solutions
- Easy to dose with limited impact on workability
- Safe to handle
- No negative impact regarding machinery wear

Packaging

Water soluble bundles in degradable paper bag (3 kg)
For other packaging options please contact us.

Shelf Life

The shelf life is 48 month, if stored in original packaging between +5 °C and +30 °C in a closed room protected from humidity and direct sun light. In addition fibers should be protected against fire. The disposal of the product and its packaging is the responsibility of the end user. Please take into account requirements according to local legislation.

Technical Data

Polymer type	Polypropylene
Colour	Colourless
Density	0,91 kg/m ³
Fiber class	II
Fiber longitudinal shape	Embossed
Fiber sectional shape	Irregular
Equivalent diameter	0,70 mm
Fiber length	55 mm
Aspect ratio	79
Fiber dosage	4 kg/m ³
Vébé-Time with fiber	6 s
Tensile strength	470 MPa
Modulus (secant) of elasticity	6000 MPa
Young's modulus	> 8000 MPa
Melting point TS	ca. 150 – 170 °C
Ignition point Ti	ca. 350 °C



MasterGlenium® TC 1571

Description

MasterGlenium® TC 1571 is a new generation admixture based on polycarboxylic ether combined with enhanced workability retention performance.

Fields Of Application

The excellent dispersing effect makes **MasterGlenium® TC 1571** the ideal choice for wet mix sprayed concrete where high early and final strengths are required. **MasterGlenium® TC 1571** provides a reduction in water content of approximately 25 - 30% and still achieve the required workability.

This makes it ideal for:

- Especially during the summer season and warm weather where long term slump retention is needed
- Temporary and final sprayed concrete linings
- Single Shell Linings
- Wet system sprayed concrete applications where high early and final strength is needed
- Backfill grouting applications behind the segments where long term slump retention is needed
- Concrete for underground construction works to meet the highest demands of workability and pumpability combined with strength and durability
- Tunnel lining concrete application during summer season and warm weather

Features and Benefits

- Allows for highly workable concrete at the lowest w/c ratio-without segregation and bleeding

- Provides extended open time to allow transportation and placing of the sprayed concrete, even hours after batching
- Provides improved pumpability due to increased cohesion in the concrete mix
- Provides reduced wear and tear on the pump
- In combination with **MasterRoc® SA 160, MasterRoc® SA 187, MasterRoc® SA 189** and similar Master Builders Solutions alkali free products the early setting and strength development of the sprayed concrete can be accelerated
- Greater durability from improved mechanical properties in the concrete
- High early & final strengths
- Reduced permeability due to lower water/cement ratio

Consumption

The consumption of **MasterGlenium® TC 1571** is in the range of 0.8-1.5 kg of the total binder weight. For further information please contact your local Master Builders Solutions representative.

Packaging

MasterGlenium® TC 1571 is available in 1000 kg IBC containers and in bulk.

Shelf Life

If stored in original unopened containers it will have a shelf life of at least one year.

Technical Data

Form	Liquid
Colour	Brown
Density; 20°C	1.094 ± 0.02 kg/liter
Ph Value	5.0 – 7.0
Alkali Content (Na ₂ O eqv)	Max. %3
Chloride Content	<0,1 % by mass



MasterRoc® MS 685

Description

MasterRoc® MS 685, is a liquid admixture based on a suspension of amorphous silica. These ultra fine particles start working as soon as they are incorporated in the mix. The texture of the slurry is similar to cement paste and creates a stable microscopic mineral. This texture provides improved cohesion, lessens porosity and increases “compactness” of the mix.

Fields Of Application

- Pump Concrete/Semi Dry Mixes
- Mixes exposed to high friction
- Concrete exposed to frequent wetting
- Concrete with fine Architectural finish
- High Performance concretes
- Shotcrete concrete
- Injection mortars
- Self-compacting concrete
- Improved Flexural Strength

Features and Benefits

The amorphous silica starts working in a pozzolanic manner as soon as it is incorporated in the cement based mix and as a consequence gives texture to the paste.

This enhanced texture improves the whole rheology of the concrete mix (or mortar) and prevents migration of the water, therefore:

- Improves Cohesion
- Reduces pump pressures
- Reduces the tendency for a mix to segregate
- Reduces porosity
- Improves the overall quality of the concrete
- Corrects a lack of fine elements within a grading curve.
- Improves surface finish

Packaging

MasterRoc® MS 685 is available in standart 1100 kg IBC containers or in bulk.

Dosage

MasterRoc® MS 685 should be used at a dosage of between:

By Volume-0.25 to 2.0 litres per 100 kg of cement (binder)

By Mass- 0.325 to 2.6 kg per 100 kg of cement (binder)

The dosage will vary according to the quantity of fines within a mix and the resultant rheology required for the application. Preliminary tests will help to find the optimum dosage

Shelf Life

Up to 18 months if stored in accordance to manufacturer’s instruction in unopened containers.

Technical Data

Appearance	Opalescent, No Smell or Taste
Specific Gravity @ 20°C	1.13 g/cm ³
Viscosity (cPS)	<15
Solid Content (wt%)	40
Ph-value	9.4



Injection



MasterRoc® FLC 100

Description

MasterRoc® FLC 100, contains a very efficient water reducing agent, a shrinkage compensating component and thixotropic agents. It is added to cement at a rate of 3 - 6% by weight of cement to make a pumpable, thixotropic grout with a low water/cement ratio.

Due to the strong water reduction effect a w/c ratio of approximately 0.25 can be used. This allows the grout to achieve very high early and final strengths.

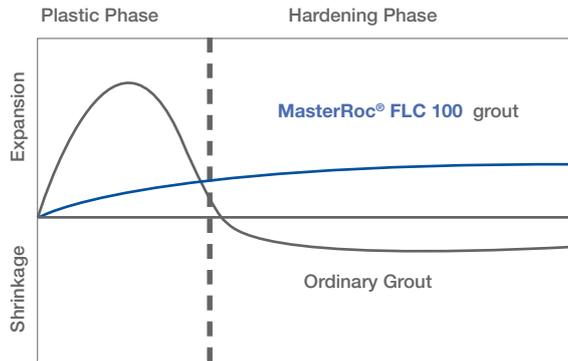
MasterRoc® FLC 100 has a very long working time to enable complete filling of the anchor hole or duct.

Fields Of Application

- Bolts and anchors in rock and soil
- Dowel grouting
- Duct and cable grouting

MasterRoc® FLC 100 is designed specifically for rock bolts and rock anchors using both normal steel anchors and tube anchors. It is ideal for overhead applications because of its thixotropic nature, preventing the grout from running out of the drill hole. Due to its shrinkage compensating properties, it secures the bonding between anchor and rock, and ensures the steel of the anchor or rockbolt is not exposed to chemical attack. Without **MasterRoc® FLC 100**, the grout's drying

shrinkage reduces the bond of the grout to both the steel anchor and the surrounding rock/soil.



Packaging

MasterRoc® FLC 100 is available in 10 kg bags.

Shelf Life

If stored in unopened bags in a dry cool place **MasterRoc® FLC 100** has a shelf life of at least 12 months. Do not use the product if the bag has been opened for more than one month.

Technical Data

Form	Pale Grey Powder
Ph Value	> 12 as grout mix (as with all cement grouts)
Solubility	Low
Added Chloride	Zero



MasterRoc® MP 355

Description

MasterRoc® MP 355, is a two component, solvent-free polyurethane injection resin specifically designed for rapid water stopping and ground consolidation.

Fields Of Application

- Permanent stopping of high volume water ingress in underground structures
- Also suitable for cold water
- Ground consolidation

Features and Benefits

- On contact with water, the product forms a rigid foam.
- Without the presence of water, the product also reacts and forms a hard substance. This is a significant safety advantage, as the material never

remains uncured.

- On contact with water the reaction is completed within a short period of time.
- Provides structural strength and rigidity.

Packaging

Part A: 25 kg cans and 200 kg drums

Part B: 30 kg cans and 240 kg drums

Shelf Life

If stored in dry conditions in unopened, tightly closed original containers and within a temperature range of +5°C and +35°C, the components of **MasterRoc® MP 355** have a shelf life of 12 months.

Technical Data

At 20°C	Color	Viscosity mPa.s	Density kg/l
Part A	Yellowish	320	1.00
Part B	Dark brown	240	1.23
Accelerator 10	Yellowish	500	1.00
Accelerator 15	Yellowish	1000	1.00
Accelerator 25	Yellowish	20	0.90

MasterRoc® MP 355 1K

Description

MasterRoc® MP 355 1K, is a solvent free, one component polyurethane foam which reacts only in contact with humidity or water.

Fields Of Application

- Stopping of small to mid-volume water ingress in underground structures
- Also suitable for filling of water bearing voids

Features and Benefits

- Reacts in moist surroundings
- Good bonding to wet surfaces

Packaging

MasterRoc® MP 355 1K : 25 kg cans

Accelerator for **MasterRoc® MP 355 1K** : 2.5 kg cans

Shelf Life

MasterRoc® MP 355 1K must be stored in airtight containers in a cool, dry place. If stored in original containers under the above mentioned conditions, it has a shelf life of 12 months. The product must be prevented from freezing.

Technical Data

Density, 20°C	1.16 g/cm ³
Viscosity, 23°C	320 mPa.s
Color	Brown
Application Temperature	+5°C to 40°C
Maximum Foam Expansion Rate At 10% Accelerator Dosage	25-30



MasterRoc® MP 355 1K DW

Description

MasterRoc® MP 355 1K DW, is a solvent free, single component polyurethane foam which reacts only in contact with humidity or water, and is certified for contact with potable water (DW: Drinking Water).

Fields Of Application

- Stopping of small to mid-volume water ingress in underground structures
- Also suitable for filling of water bearing voids

Features and Benefits

- Reacts in moist surroundings

- Good bonding to wet surfaces
- Forms a flexible foam

Packaging

MasterRoc® MP 355 1K DW :25 kg cans
Accelerator for **MasterRoc® MP 355 1K DW**: 2.5 kg cans

Shelf Life

MasterRoc® MP 355 1K DW must be stored in airtight containers in a cool, dry place. If stored in original containers under the above mentioned conditions, it has a shelf life of 12 months. The product must be prevented from freezing.

Technical Data

Density, 20°C	1.16 g/cm ³
Viscosity, 23°C	700 mPa.s
Color	Yellowish
Application Temperature	+5°C to 40°C
Maximum Foam Expansion Rate At 10% Accelerator Dosage	20-30

MasterRoc® MP 358 SC

Description

MasterRoc® MP 358 SC, is a two component, solvent-free polyurethane injection resin specifically designed for rapid stabilization of strata where high compressive and bonding strength is needed.

Fields Of Application

- Consolidation of fractured rock in underground structures
- Consolidation of broken coal in development roadways and longwalls
- Sealing against gas and water

Features and Benefits

- Fast reacting material applied where structural strength and flexibility is required.
- Reacts and expands in volume up to 3 times

without water contact.

- Penetrates cracks wider than 0.14 mm.
- When in contact with water, the foam factor may increase to about 8.
- Low sensitivity to water.
- Almost no increase of reaction temperature on contact with water.

Packaging

Part A: 25 kg cans and 205 kg drums
Part B: 30 kg cans and 250 kg drums

Shelf Life

If stored in dry conditions, in unopened, tightly closed original containers and within a temperature range of +5°C and +35°C, the components of **MasterRoc® MP 358 SC** have a shelf life of 12 months.

Technical Data

	Color	Viscosity (mPa.s)	Density (kg/l)
Part A	Yellow	300	1,01
Part B	Dark Brown	240	1,22



MasterRoc® MP 367 Foam

Description

MasterRoc® MP 367 Foam, is a two component, solvent-free polyurea silicate foam specifically designed for rapid cavity filling and ground consolidation.

Fields Of Application

- Void and cavity filling, also to avoid water or gas accumulation
- Consolidation of fractured rock in underground structures
- Consolidation of rock in coal mines

Features and Benefits

- Very fast reacting material.
- Stable and workable foam structure.
- Does not expand its volume on contact with

water.

- Shows good adhesion to wet and low friction substrates.
- Fire resistant (according to DIN4102-B2)

Packaging

Part A: 34 kg cans and 284 kg drums
Part B: 30.6 kg cans and 250 kg drums

Shelf Life

If stored in dry conditions, in unopened, tightly closed original containers and within a temperature range of +5°C and +35°C, the components of **MasterRoc® MP 367 Foam** have a shelf life of 12 months.

Technical Data

	Color	Viscosity (mPa.s)	Density (kg/l)
Part A	Colorless	60	1,40
Part B	Pale brown	230	1,25

MasterRoc® MP 368

Description

MasterRoc® MP 368, is a fast reacting two component, solvent-free polyurea silicate injection resin specifically designed for rapid ground consolidation.

Fields Of Application

- Consolidation of fractured rock in underground structures
- Consolidation of coal in development roadways and longwalls
- Sealing against gas and water
- Repair of concrete cracks

Features and Benefits

- Good adhesion to concrete of 5,0 MPa after 0,5 h
- Mixes easily even in low temperatures > 5°C
- Compressive strength of >25 MPa
- Penetrates cracks wider than ≥ 0.14 mm

- High structural strength combined with flexibility
- Injected material shows good adhesion to damp and low friction substrates
- Neither expands its volume with water nor absorbs water

Packaging

Part A: 36 kg cans and 298 kg drums
Part B: 28 kg cans and 232 kg drums

Shelf Life

MasterRoc® MP 368 has a shelf life of 24 months if stored in original, unopened packaging between +5 °C to +35°C. The storage area must be kept dry.

Technical Data

	Color	Viscosity (mPa.s)	Density (kg/l)
Part A	Colorless	300	1,49
Part B	Dark Brown	115	1,16



MasterRoc® MP 303CE

Description

MasterRoc® MP 303CE, is a highly reactive two-component acrylic sealing resin with a low viscosity for good penetration. The product cures quickly, forming a highly flexible hydrogel with excellent swelling/re-swelling properties.

Fields Of Application

- Concrete repair – swelling fitted filling of cracks and fissures (EN 1504-5: category S)
- Curtain injection
- Permanent water sealing of tunnel and shaft concrete linings and masonry
- Stopping of minor water inrush through cracks

Features and Benefits

- Upon curing forms a highly flexible compact resin with good adhesion properties even on damp or wet surfaces.
- The cured resin is resistant to acidic and alkaline solutions as well as many other solvents.
- Can swell to more than 200% of its initial volume, accommodating structural and ground movement. The swelling is reversible and after dry periods the

resin maintains its self-healing properties.

- Good bond strength to fractured rock and concrete, even under wet conditions.
- Very low viscosity (close to water) allows deep penetration at low pressure into very fine cracks or fissures and long flow paths.
- Controlled gel time between 14 seconds and 3 minutes at 20°C. With the retarder the gel time can be prolonged to more than 40 minutes.
- Environmentally friendly: Harmless in contact with groundwater and no emission of dangerous substances

Packaging

Standard packaging

MasterRoc® MP 303CE Resin: 22.5 kg can

MasterRoc® MP 303CE Accelerator: 1.0 kg can

MasterRoc® MP 303CE Hardener: 1.0 kg can

MasterRoc® MP 303CE Retarder: 1.0 kg can

Shelf Life

In unopened, tightly closed containers, the components of **MasterRoc® MP 303CE** can be stored for up to 12 months

Technical Data

MasterRoc MP 303 CE Resin	
Appearance	Clear blue liquid
Viscosity (20°C)	40 mPa s
Density (20°C)	1.19 kg/l

Technical Data

MasterRoc MP 303 CE Accelerator	
Appearance	Clear liquid
Viscosity (20°C)	280 mPa s
Density (20°C)	1.12 kg/l

Technical Data

MasterRoc MP 303 CE Hardener	
Appearance	White solid
Density (20°C)	Approx. 2.6 kg/l

Technical Data

MasterRoc MP 303 CE Retarder	
Appearance	Clear yellowish liquid
Viscosity (20°C)	~1 mPa s
Density (20°C)	1 kg/l

Technical Data

Mixed material (mixing ratio Resin : Part B of 1:1 without retarder)	
Appearance	Clear blue liquid
Viscosity (20°C)	5 mPa s
Density (20°C)	1.14 kg/l
Gel time (20°C)	10 seconds to 3 minutes
Final curing (20°C)	10 to 20 minutes



MasterRoc® MP 307CE

Description

MasterRoc® MP 307CE, is a highly reactive two-component acrylic sealing resin with a low viscosity for good penetration. The product cures quickly, forming a rubber-like resin with the ability to withstand certain ground and crack movement. **MasterRoc® MP 307CE** is especially designed for concrete repair and is CE certified according to EN 1504-5.

Fields Of Application

- Concrete repair - swelling fitted filling of cracks and fissures (EN 1504-5: category S)
- Curtain injection
- Permanent water sealing of tunnel and shaft concrete linings and masonry
- Stopping of minor water inrush through cracks
- Injection hose applications
- Ground stabilization

Features and Benefits

- Upon curing forms a highly flexible compact resin with good adhesion properties even on damp and wet surfaces.
- Due to the special latex emulsion of Part B the cured system is rubber-like and strong but still extremely flexible.
- Very low viscosity (close to water) allows deep penetration at low pressure into very fine cracks or fissures and long flow paths.

- Withstands a permanent water pressure of up to 7 bar.
- Superior flexibility (elongation at break >300%) enabling balance of ground movements or settlements.
- Not sensitive to water and always stays close to its original shape (maximum change of mass - 15% to +20%).
- Neither the liquid nor the cured resin is corrosive and is therefore suitable for reinforced concrete structures.
- Good chemical resistance against acids, bases, solvents, fuels, etc.
- Environmentally friendly: harmless in contact with groundwater and does not emit any dangerous substances.

Packaging

Standard packaging

MasterRoc MP 307 CE Resin: 20 kg can

MasterRoc MP 307 CE Accelerator: 1 kg can

MasterRoc MP 307 CE Part B: 20 kg can

MasterRoc MP 307 CE Hardener: 0.3 kg can

Shelf Life

In unopened, tightly closed containers, the components of **MasterRoc® MP 307CE** can be stored for up to 12 months,

Technical Data

MasterRoc MP 307 CE Resin	
Appearance	Clear liquid
Viscosity (20°C)	5 mPa s
Density (20°C)	1.05 kg/l

Technical Data

MasterRoc MP 307 CE Accelerator	
Appearance	Clear liquid
Viscosity (20°C)	2 mPa s
Density (20°C)	0.93 kg/l

Technical Data

MasterRoc MP 307 CE Part B	
Appearance	White liquid
Viscosity (20°C)	12 mPa s
Density (20°C)	1.01 kg/l

Technical Data

MasterRoc MP 307 CE Hardener	
Appearance	White solid
Density (20°C)	Approx. 2.6 kg/l

Technical Data

Mixed material (mixing ratio Resin : Part B of 1:1)	
Appearance	White liquid
Viscosity (20°C)	7 mPa s
Density (20°C)	1.03 kg/l
Gel time (20°C)	3 to 22 minutes
Final curing (20°C)	10 to 25 minutes



MasterRoc® MP 309

Description

MasterRoc® MP 309, is a highly reactive two-component acrylic grouting resin with a low viscosity for good penetration. The product cures quickly, forming a hard, compact resin with high compressive strength for ground consolidation.

- Develops mechanical strength quickly.
- Good chemical resistance against acids, bases, solvents, fuels, etc.
- Environmentally friendly: Harmless in contact with groundwater and no emission of dangerous substances.

Fields Of Application

- Ground consolidation, especially of silty and sandy soils
- Slope stabilization in rock

Features and Benefits

- Hard compact material with high compressive strength of > 9 MPa (injected into DIN ISO 196 sand).
- Good bond strength to fractured rock, even under wet conditions.
- Very low viscosity (close to water), allows deep penetration into very fine cracks and sandy soil.

Packaging

Standard packaging

MasterRoc® MP 309 Resin: 20 kg can

MasterRoc® MP 309 Accelerator: 5 kg can

MasterRoc® MP 309 Part B: 20 kg can

MasterRoc® MP 309 Hardener: 0.4 kg can

Shelf Life

In unopened, tightly closed containers, the components of **MasterRoc® MP 309** can be stored for up to 12 months.

Technical Data

MasterRoc MP 309 Resin	
Appearance	Clear liquid
Viscosity (20°C)	13 mPa s
Density (20°C)	1.07 kg/l

Technical Data

MasterRoc MP 309 Accelerator	
Appearance	Clear liquid
Viscosity (20°C)	280 mPa s
Density (20°C)	1.12 kg/l

Technical Data

MasterRoc MP 309 Part B	
Appearance	Clear liquid
Viscosity (20°C)	10 mPa s
Density (20°C)	1.04 kg/l

Technical Data

MasterRoc MP 309 Hardener	
Appearance	White solid
Density (20°C)	Approx. 2.6 kg/l

Technical Data

Mixed material (mixing ratio Resin: Part B of 1:1)	
Appearance	Clear liquid
Viscosity (20°C)	13 mPa s
Density (20°C)	1.07 kg/l
Gel time (20°C)	1 to 9 minutes
Final curing (20°C)	10 to 20 minutes



MasterRoc® MP 350

Description

MasterRoc® MP 350, is a single component hydrophilic polyurethane based injection resin which forms a permanent, impermeable and flexible sealing material on contact with water.

Fields Of Application

- Permanent crack sealing of underground structures
- Sealing of minor water ingress
- Upgrading of temporary water sealing to permanent solution
- For use with MasterFlex 900 injection hoses

Features and Benefits

- Permanent sealing effect.
- Forms a closed cellular material giving an impermeable, high resilience seal against water ingress.
- Reacts in moist and wet surroundings.
- Good bonding to wet surfaces.

- Foams upon contact with water.
- Penetration of fissures smaller than 0.05 mm. **MasterRoc® MP 350** can be injected as a simple resin, but also has a faster reaction option for flowing water by adding a small quantity of the **MasterRoc® MP 350 Accelerator**

Packaging

Injection resin:

MasterRoc® MP 350: 25.3 kg cans

Optional accelerator:

MasterRoc® MP 350 Accelerator: 2.5 kg cans

Shelf Life

MasterRoc® MP 350 must be stored in airtight containers in a cool, dry place. If stored in tightly closed original containers under the above mentioned conditions it has a shelf life of 24 months. The product must be prevented from freezing.

Technical Data

Viscosity (23°C)	250 mPa.s
Density (20°C)	1.15 g/cm ³
Color	Colorless to yellowish
Application temperature	+ 5°C to 40°C



MasterRoc® MP 355 Thix

Description

MasterRoc® MP 355 Thix, is a two component, solvent-free polyurethane injection resin specifically designed for rapid water stopping under difficult conditions (flowing water).

Fields Of Application

- Stopping of high volume water ingress in underground structures
- Also suitable for cold water

Features and Benefits

- On contact with water, the reaction is completed within a short period of time.
- Thixotropic properties which gives increased stability and anti-diluting properties when exposed to high water flows
- Suitable when structural strength is required immediately (see Part A of **MP 355 Thix**)
- When in contact with water, the product forms rigid

foam.

- Without the presence of water, the product also reacts and forms a stiff, rubber-like material. This is a significant safety advantage as the material will be cured in any conditions.
- Very fast viscosity increase: > 2000 mPa.s at 10 seconds, > 4000 mPa.s at 20 seconds (20°C)

Packaging

MasterRoc® MP 355 Thix is available in the following packaging:

- Part A: 25kg cans and 200kg drums
- Part B: 30kg cans and 240kg drums

Shelf Life

MasterRoc® MP 355 Thix If stored in dry conditions, in unopened, tightly closed original containers and within a temperature range of +5°C and +35°C, the components of **MasterRoc® MP 355 Thix** have a shelf life of 24 months.

Technical Data

At 20°C	Color	Viscosity (mPa.s)	Density (kg/l)
Part A	Yellowish	350	1.02
Part B	Dark brown	350	1.23
Accelerator 10	Yellowish	500	1.00
Accelerator 15	Yellowish	1000	1.00
Accelerator 25	Yellowish	20	0.90

MasterRoc® MP 358GS

Description

MasterRoc® MP 358GS, is a two component, solvent-free polyurethane injection resin specifically designed for rapid stabilization of strata where very high compressive and bonding strength is needed.

Fields Of Application

- Consolidation of fractured rock in underground structures
- Permanent consolidation of broken coal in development roadways and longwalls
- Sealing against gas and water

Features and Benefits

- Fast reacting material applied where structural strength and flexibility is required.
- Reacts and expands in volume up to 1.5 times without water contact

- Penetrates cracks wider than 0.14 mm
- Excellent compressive and bonding strength
- Low sensitivity to water
- Almost no increase in reaction temperature in contact with water
- Good bonding on wet and damp surfaces

Packaging

- Part A: 25 kg cans and 205 kg drums
- Part B: 30 kg cans and 250 kg drums

Shelf Life

If stored in dry conditions, in unopened, tightly closed original containers and within a temperature range of +5°C and +35°C, the components of **MasterRoc® MP 358GS** have a shelf life of 24 months.

Technical Data

	Color	Viscosity (mPa.s)	Density (kg/l)
Part A	Yellow	300	1.01
Part B	Dark brown	240	1.22



MasterRoc® SA 167

Description

MasterRoc® SA 167, is a high performance alkalifree set accelerator for sprayed concrete, whose dosage can be varied to the desired setting and hardening times.

Fields Of Application

- Temporary and permanent ground support in tunneling and mining
- Slope stabilisation
- Also suitable for acceleration of cementitious grouts, such as for annulus grout in TBM tunnels, cemented ground injection and foam concrete.

Features and Benefits

MasterRoc® SA 167 is ideally suited for wet mix sprayed concrete for ground support:

- The quick setting property allows rapid work progress and the ability to construct thick sprayed concrete linings via layered application during one construction sequence.

- The unique product formulation provides fast setting, continuous early-age strength development high durability and good long term strength.
- Very low dust generation during application and therefore a good working environment.
- Possibility of low rebound applications when using the correct nozzle angle and distance.
- Non-aggressive properties provide improved working safety, reduced environmental impact and lower handling costs.

Packaging

MasterRoc® SA 167 is supplied in 300 kg drums, 1400 kg containers or in bulk

Shelf Life

If stored in tightly closed original containers under the above conditions, it has a shelf life of 6 months.

Technical Data

Form	Suspension
Color	Beige
Density (+20°C)	1.44 ± 0.03 g/ml
Ph value (1:1 water solution)	2.5 ± 0.5
Viscosity ¹⁾	675 ± 325 mPa.s
Thermal stability	+5°C to +35°C
[Na ₂ O] EQV. (%bw) Chloride Free	<1%

¹⁾Brookfield, +20°C. Viscosity is dependent on degree of product agitation and temperature.



MasterRoc® SA 194

Description

MasterRoc® SA 194, is a high performance alkali-free set accelerator for sprayed concrete, whose dosage can be varied to the desired setting and hardening times.

Fields Of Application

- Temporary and permanent ground support in tunnelling and mining
- Slope stabilization
- Also suitable for acceleration of cementitious grouts, such as for annulus grout in TBM tunnels, cemented ground injection and foam concrete.

Features and Benefits

- The quick setting property allows rapid work progress and the ability to construct thick sprayed concrete linings via layered application during one construction sequence.
- The unique product formulation provides fast setting, continuous early-age strength development high durability and good long term strength.
- Very low dust generation during application and therefore a good working environment.

- Possibility of low rebound applications when using the correct nozzle angle and distance.
- Non-aggressive properties provide improved working safety, reduced environmental impact and lower handling costs

Consumption

The consumption of **MasterRoc® SA 194** also depends on the w/c+b ratio, temperature conditions (concrete and ambient), and cement reactivity and on required layer thickness, setting time and early strength development. The consumption of **MasterRoc® SA 194** is normally in the range of 3 to 10% of binder weight. Overdosing (>10%) may result in decreased final strength.

Packaging

MasterRoc® SA 194 is supplied in 1500 kg containers or in bulk.

Shelf Life

If stored in tightly closed original containers under the above conditions, it has a shelf life of 12 months

Technical Data

Form	Suspension
Color	Beige to White
Density (+20°C)	1.50 ± 0.03 g/ml
Ph value	2.75 ± 0.75
Viscosity ¹⁾	550 ± 250 mPa.s
Thermal stability	+5°C to +35°C
Chloride Content	<0.1%
[Na ₂ O] EQV. (%bw)	<1%

¹⁾Brookfield, +20°C. Viscosity is dependent on degree of product agitation and temperature.



TBM



MasterRoc® ABR 2

Description

MasterRoc® ABR2, is a liquid product, specifically designed for tunnel boring machines (TBM) operating in hard rock respectively abrasive ground.

Fields Of Application

MasterRoc® ABR2 is designed as anti-dust and anti-clogging-agent with wear reduction properties for hard-rock tunnel boring machines as well as for EPB tunnel boring machines operating in hard rock geology.

Features and Benefits

- Effective reduction of dust formation, leading to considerably improved working environment for the operators
- Improved transfer of the muck from the cutter head, resulting in reduced risk of blockage, cleaner cutter discs and cutterhead area, which make maintenance easier and reduce cutter disc changing time
- Protection of the screw conveyor

- Reduction of abrasive wear for cutting tools
- Improved cooling of the cutter head, improving the rubber seal durability, and extending the life of the cutter bearing assembly

Consumption

Typical consumption rate of **MasterRoc® ABR2** is 0,5 - 1.0 kg/m³ undisturbed rock.

Packaging

MasterRoc® ABR2 is available in standard 1000 litre containers. Other packaging is available on request.

Shelf Life

MasterRoc® ABR2 should be stored between 5°C and 40°C. If stored in original tightly closed containers **MasterRoc® ABR2** will have a shelf life of 12 months.

Technical Data

Form	Liquid
Colour	Transparent
Density	Approx 1.05
Ph ; 20°C, 5% sol.	6.5 – 7.5

MasterRoc® ACP 143

Description

MasterRoc® ACP143, is a liquid polymer, specially designed for clayey soils with clogging and adhesion.

Fields Of Application

MasterRoc® ACP143 creates a stable foam and can be used with the standard foam generators installed on EPB machines. It can be injected at the cutterhead, into the working chamber and screw conveyor.

Features and Benefits

- Reduction of clogging and adhesion effects on the cutterhead
- Creation of a plastic soil material which can be easily excavated and transported

- Avoiding re-agglomeration of clay chips to blocks
- Reduction of cutterhead torque
- Increase in TBM speed

Packaging

MasterRoc® ACP143 is available in 1000kg IBCs.

Shelf Life

MasterRoc® ACP143 Must be stored between 5°C and 40°C. If stored in original tightly closed containers it will have a shelf life of 12 months.

Technical Data

Form	Liquid
Colour	Light Brown
Density (20°C, g/cm ³)	1.042 ± 0.02
Viscosity (20°C, Brookfield Sp. 00)	<160 mPa.s
Ph (3% solution, 20°C)	7±1



MasterRoc® ACP 145

Description

MasterRoc® ACP145, is a liquid polymer, specially designed for clayey soils with clogging and adhesion.

Fields Of Application

MasterRoc® ACP145 creates a stable foam and can be used with the standard foam generators installed on EPB machines. It can be injected at the cutterhead, into the working chamber and screw conveyor.

Features and Benefits

- Reduction of clogging and adhesion effects on the cutterhead

- Creation of a plastic soil material which can be easily excavated and transported
- Avoiding re-agglomeration of clay chips to blocks
- Reduction of cutterhead torque
- Increase in TBM speed

Packaging

MasterRoc® ACP145 is available in 1000kg IBCs.

Shelf Life

MasterRoc® ACP145 Must be stored between 5°C and 40°C. If stored in original tightly closed containers it will have a shelf life of 12 months.

Technical Data

Form	Liquid
Colour	Light Brown
Density (20°C, g/cm ³)	1.026 ± 0.02
Viscosity (Brookfield spn 1/30RPM-20°C)	≤50 mPa.s
Ph (ISO 4316- 20°C)	7±1

MasterRoc® ACP 214

Description

MasterRoc® ACP214, is a liquid polymer, specially designed for clayey soils with clogging and adhesion. The use of **MasterRoc® ACP214** eliminates stickiness & adhesiveness of the clay, allowing easy and convenient transport of muck and reducing the risk of TBM blockage.

Fields Of Application

MasterRoc® ACP214, anti-clay polymer can be injected into the cutter head and screw conveyor to facilitate the excavation and muck removal process during tunneling in sticky clayey formations. We advise prior trials for injection via foam generation units to assess any effects on the foam generators.

Features and Benefits

- Breaks down clay, reducing its stickiness and adhesiveness, even under conditions of pressure and high temperature of the cutting head and in

- the mixing chamber
- Reduces the torque and increases TBM speed
- Avoids the formation of lumps which can block the cutting head
- Permits the reduction of separately injected water to decrease the torque
- Facilitates the evacuation of muck by screw conveyor & conveyor belt
- Ready to use product, no mixing required

Packaging

MasterRoc® ACP214 is available in 1000kg IBCs and in bulk.

Shelf Life

MasterRoc® ACP214 should be stored in a clean, dry place at temperatures between 10 – 40 °C, in its original sealed packaging, protected from freezing. Under these conditions, the product can be stored safely for up to 6 months.

Technical Data

Form	Liquid
Colour	Dark Brown
Density (20°C, g/cm ³)	1.116 ± 0.02
Viscosity 20°C	< 60 bcw
Ph	Approx. 7



MasterRoc® BSG 11

Description

MasterRoc® BSG11, is an excluder grease for tunnel boring machines. It effectively protects the main bearing and prevents soil, water or dust ingress into the main bearing sealing. It is formulated to resist high water and ground pressures, and has excellent lubrication and pumping properties as well as excellent adhesion to all surfaces.

- Excellent pumping and lubricating properties especially at very low or very high temperatures

Packaging

MasterRoc® BSG11 is available in standard 230 kg and 60 kg steel drums for press plate pumps

Shelf Life

MasterRoc® BSG11 should be stored at 5-35°C. If stored in original tightly closed drums it has a shelf life of 12 months. .

Fields Of Application

- Excellent sealing and anti-washout properties
- Excellent adhesion to any metal or concrete surfaces

Technical Data

Form	Homogenous Paste, Fibrous
Colour	Black
Odour	None
Density [kg/m³] 20°C	1150 ± 50
Consistency ISO 2137 [1/10 mm]	250-280
4-ball wear DIN 51350:5 [mm]	<0,9
Water wash out (38°C) ISO 11009 [%]	<6
Water spray off (38°C) ASTM D 4049 [%]	<4
Water resistance DIN 5180771	0-0
Sealing Elastomer Compatibility	Approved by Merkel, J. Walker
Flash point (base oil)	>290°C
Biodegradation	inert

MasterRoc® SLF 30

Description

MasterRoc® SLF 30, is a foaming agent especially designed for soil conditioning in shielded tunnel boring machines.

Consumption

Typically, **MasterRoc® SLF 30** is used at 2 to 3% (range 1.5-4%) in water to make a solution. **MasterRoc® SLP 1** or **MasterRoc® SLP 2** polymers (see separate data sheets) can be jointly used with **MasterRoc® SLF 30** to strengthen the foam or adjust the properties of the excavated soil. For the first use and combination with other soil conditioning agents, please contact your local Master Builders Solutions representative.

Fields Of Application

- Soft ground tunneling

Features and Benefits

- Improved soil behavior
- Easier 'mucking'
- Reduced permeability and increased sealing at the face
- Creation of plastic deformation properties in the soil, which provides an even and controlled support pressure and increased face stability.
- Lower inner friction and lower abrasiveness of the soil at the cutterhead through to the screw conveyor and conveyor. This reduces power consumption, enables soil extraction and conveyance, as well as reducing wear costs
- Reduced stickiness in certain soils, which would lead to blockage problems

Packaging

MasterRoc® SLF 30 is available in standard 1000 kg IBCs.

Shelf Life

MasterRoc® SLF 30 must be stored between 5°C and 40°C. If stored in original tightly closed containers, it will have a shelf life of 12 months. Do not allow the product to freeze. Please contact your local Master Builders Solutions representative prior to the use of any product that has frozen.

Technical Data

Form	Liquid
Color	Clear Colorless
Density [kg/m³] 20°C	1035-1045
Viscosity [mPas] 20°C	100
Ph (5% solution) 20°C	6.5 – 7.5
Solubility in Water	Total



MasterRoc® SLF 33

Description

MasterRoc® SLF 33, is a foaming agent especially designed for soil conditioning in shielded tunnel boring machines.

Fields Of Application

- Soft ground tunneling

Features and Benefits

- Improved soil behavior.
- Easier 'mucking'.
- Reduced permeability and increased sealing at the face.
- Creation of plastic deformation properties in the soil, which provides an even and controlled support pressure and increased face stability.
- Lower inner friction and lower abrasiveness of the soil at the cutterhead through to the screw conveyor and conveyor. This reduces power consumption, enables soil extraction and conveyance, as well as reducing wear costs.
- Reduced stickiness in certain soils, which would lead to blockage problems.

Technical Data

Form	Liquid
Color	Clear Colorless
Density [kg/m³] 20°C	1035-1045
Viscosity [mPas] 20°C	100
Ph (5% solution) 20°C	6.5 – 7.5
Solubility in Water	Total

Consumption

Typically, **MasterRoc® SLF 33** is used at 2 to 3% (range 1.5-4%) in water to make a solution. **MasterRoc® SLP1** or **MasterRoc® SLP 2** polymers (see separate data sheets) can be jointly used with **MasterRoc® SLF 33** to strengthen the foam or adjust the properties of the excavated soil. For the first use and combination with other soil conditioning agents, please contact your local Master Builders Solutions representative.

Packaging

MasterRoc® SLF 33 is available in standard 1000 kg IBCs.

Shelf Life

MasterRoc® SLF 33 must be stored between 5°C and 40°C. If stored in original tightly closed containers, it will have a shelf life of 12 months. Do not allow the product to freeze. Please contact your local Master Builders Solutions representative prior to the use of any product that has frozen.

MasterRoc® SLF 41

Description

MasterRoc® SLF 41, is a polymer reinforced foaming agent especially designed for soil conditioning in shielded tunnel boring machines.

Fields Of Application

- Soft ground tunneling
- Designed for silt to sand soils which may contain a high amount of water

Features and Benefits

- Improved soil behavior.
- Easier 'mucking'.
- Reduced soil permeability.
- Creation of plastic deformation properties in the soil, which provides an even and controlled support pressure and increased face stability.
- Lower inner friction and lower abrasiveness of the soil at the cutterhead.
- Reduced stickiness of certain soils, which would lead otherwise to blockage problems.

Technical Data

Form	Liquid
Color	Transparent
Density [kg/m³] 20°C	1035-1045
Ph (5% solution) 20°C	6.5 – 7.5
Solubility in Water	Total

Consumption

Typically, **MasterRoc® SLF 41** is used at 2 to 3% (range 2-6%) in water to make a solution. **MasterRoc® SLP 1** or **MasterRoc® SLP 2** polymers (see separate data sheets) can be jointly used with **MasterRoc® SLF 41** to strengthen the foam or to adjust the properties of the excavated soil. For the first use and combination with other soil conditioning agents, please contact your local Master Builders Solutions representative

Packaging

MasterRoc® SLF 41 is available in standard 1000 kg IBCs.

Shelf Life

MasterRoc® SLF 41 must be stored between 5°C and 35°C. If stored in original closed containers, it will have a shelf life of 12 months. Do not allow the product to freeze. Please contact your local Master Builders Solutions representative prior to the use of any product that has frozen.



MasterRoc® SLF 43

Description

MasterRoc® SLF 43, is foaming agent reinforced with a high concentration of polymer especially designed for soil conditioning in shielded tunnel boring machines.

Fields Of Application

- Soft ground tunneling
- Designed for silt to sand soils which may contain a high amount of water

Features and Benefits

- Improved soil behavior.
- Easier ‘mucking’.
- Reduced soil permeability.
- Creation of plastic deformation properties in the soil, which provides an even and controlled support pressure and increased face stability.
- Lower inner friction and lower abrasiveness of the

soil at the cutterhead.

- Reduced stickiness of certain soils, which would lead otherwise to blockage problems.

Packaging

MasterRoc® SLF 43 is available in 200 kg drums, 1000 kg IBCs and bulk.

Shelf Life

MasterRoc® SLF 43 Must be stored between 5°C and 40°C. If stored in original tightly closed containers it will have a shelf life of 12 months. Do not allow the product to freeze. It is recommended that your local representative be consulted prior to the use of any product that has become frozen.

Technical Data

Form	Liquid
Color	Transparent
Density [kg/m³] 20°C	1.035-1.045
Ph (3% solution) 20°C	6.5 – 7.5

MasterRoc® SLP 1

Description

MasterRoc® SLP 1, is a polymer which is used to enhance the performance of **MasterRoc® SLF** foam products under difficult ground conditions.

Fields Of Application

- EPB shield machines
- Poorly graded and water saturated ground

Features and Benefits

- Tackling water problems in ground containing fine sand or silt.
- Reducing soil permeability.
- Creation of plastic deformation properties in the soil which provides an even and controlled support pressure and increased face stability.
- Lowering inner friction and abrasiveness of the soil.
- Increasing cohesion of coarser sands and sandy gravels.
- Strong viscosifying effect, turning wet soil into a more manageable consistency.

- When injected directly into the screw conveyor, it helps the formation of the “plug”.
- Ready to use - no mixing equipment required.

Consumption

The typical consumption of **MasterRoc® SLP 1** is between 0.2 – 2 kg/m³ of soil (in situ). Other dosage levels may also be appropriate – please consult your local **Master Builders Solutions** representative.

Packaging

MasterRoc® SLP 1 is available in standard 1000 kg IBCs.

Shelf Life

MasterRoc® SLP 1 must be stored between 5°C and 35°C. If stored in original closed containers, it will have a shelf life of 12 months. Do not allow the product to freeze. Please contact your local Master Builders Solutions representative prior to the use of any product that has frozen.

Technical Data

Form	Liquid
Color	Transparent
Density [kg/m³] 20°C	1035-1045
Ph 20°C	6.5 – 7.5
Solubility in Water	Total



MasterRoc® TSG 6

Description

MasterRoc® TSG 6 is a tail sealant for shielded tunnel boring machines. It effectively seals the gap between the shield and concrete segments to prevent the ingress of water, grout and soil. It is formulated to resist high water and ground pressures, and has excellent pumping properties and adhesion to all types of surfaces.

Fields Of Application

Tunnelling with shielded TBMs equipped with a brush seal system.

Features and Benefits

- Excellent sealing properties
- Excellent adhesion to any metal or concrete surfaces
- Excellent pumping properties

Consumption

The typical consumption rate varies between 0.8 and 1.5 kg/m² of segment outer surface area, but can fall outside this range. Consumption depends on numerous factors such as segment surface conditions, curve drives, brush conditions, grouting pressures etc

Packaging

MasterRoc® TSG 6 is available in standard 70 kg or 250 kg steel drums for press plate pumps.

Shelf Life

MasterRoc® TSG 6 should be stored at 5° - 35°C. If stored in original tightly closed drums it has a shelf life of 12 months.

Technical Data

Form	Homogenous Paste
Colour	Beige
Odour	Slight Odour
Density [kg/m ³] 20°C	1590 ± 50
Consistency ASTM D 217 [1/10 mm] Viscosity (20°C, approx.)	200 ± 10
@ shear rate 0,1/s	580 Pa.s
@ shear rate 100/s	115 Pa.s
Matsumara Sealing Test	34.3 bar
Volatility ASTM D 972	<2%
Oil Dropping Point ISO 2176	>170°C
Thermal Decomposition	>180°C
Sulfated Ashes	>50%
Insoluble Matter	>50%
Water Spray Off ASTM D 4049	<5%



MasterRoc® TSG 7

Description

MasterRoc® TSG 7 is a tail sealant for shielded tunnel boring machines. It effectively seals the gap between the shield and concrete segments to prevent the ingress of water, grout and soil. It is formulated to resist high water and grout pressures, and has excellent adhesion to all types of surfaces. It is designed as a first fill sealant.

Fields Of Application

Tunnelling with shielded TBMs equipped with a brush seal system.

Features and Benefits

- Excellent sealing properties
- Excellent adhesion to any metal or concrete surfaces
- Good pumping properties if pumping system is moved close to the application location

Packaging

MasterRoc® TSG 7 is available in standard 70 kg or 250 kg steel drums for press plate pumps.

Shelf Life

MasterRoc® TSG 7 should be stored at 5° - 35°C. If stored in original tightly closed drums it has a shelf life of 12 months.

Technical Data

Form	Homogenous Paste
Colour	Light Grey
Odour	Slight Odour
Density [kg/m³] 20°C	1670 ± 50
Consistency ASTM D 217 [1/10 mm]	218 ± 10
Water Spray Off ASTM D 4049	<5%
Matsumara Sealing Test	34.3 bar
Volatility ASTM D 972	<2%
Oil Dropping Point ISO 2176	>170°C
Thermal Decomposition	>180°C
Sulfated Ashes	>50%
Insoluble Matter	>50%

The average consumption to fill a 3 row brush system is 50 kg per meter shield circumference

MasterRoc® TSG 16

Description

MasterRoc® TSG 16 is a tail sealant for shielded tunnel boring machines. It effectively seals together with wire brushes the gap between the shield tail and the concrete segments to prevent the ingress of water, grout and soil. It is formulated to resist water and grout pressures, and has excellent pumping properties. It has special rheological properties for excellent spreading in the sealant chamber.

Fields Of Application

MasterRoc® TSG 16 Tunnelling with shielded TBMs equipped with a brush seal system.

Features and Benefits

- Excellent sealing properties
- Good adhesion to any metal or concrete surfaces

- Excellent pumping properties

Consumption

The typical consumption rate varies between 0.8 and 1.5 kg/m² of segment outer surface area, but can fall outside this range. Consumption depends on several factors such as segment ring surface conditions, curve drives, brush conditions, grouting pressures, etc.

Packaging

MasterRoc® TSG 16 is available in standard 70 kg or 200 kg steel drums for press plate pumps.

Shelf Life

MasterRoc® TSG 16 should be stored at 5°C 35°C. If stored in original tightly closed drums it has a shelf life of 12 months.

Technical Data

Form	Homogenous Paste
Colour	Light Grey-brownish
Odour	Light Odor
Density [kg/m³] 20°C	1350 ± 100
Consistency ASTM D 217 [1/10 mm]	240 ± 20
Matsumara Sealing Test	34.3 bar
Volatility ASTM D 972	<2%
Oil Dropping Point ISO 2176	>170°C
Thermal Decomposition	>180°C



WaterProofing in Tunnels

MasterSeal® 345

Description

MasterSeal® 345 is an EVA polymer based sprayable membrane for the waterproofing of underground concrete structures. It is spray applied in a sandwich structure between two sprayed concrete / cast concrete layers, creating a double bonded composite shell lining. It is flexible and has very high bond strength properties on both sides of the membrane. It is an effective alternative to conventional waterproofing sheet membranes.

As a double bonded system, this provides excellent water tightness, preventing the development of water migration on both sides of the membrane.

As with all spray applied membranes, it is not possible to seal against water ingress through the substrate. In such cases, a drainage system or local water management using drainage pipes should be used in combination with **MasterSeal® 345**. However, it can be applied to damp substrate (as long as there is no running water).

Fields Of Application

Suitable for all types of tunnel designs Particularly well suited for underground structures with complex profiles and geometry such as stations, escape and access tunnels, utility caverns, cross passages and tunnel intersections

Enables tunnel design with composite shell lining to reduce excavation cross section and lining thickness, and is especially suited to tunnel rehabilitations

Technical Data

Form	powder
Color	light beige or orange
Water pressure resistance (max)	15 bar
Bulk density (+20°C)	590 g/l ± 100 g/l
Application thickness	3 to 6 mm
Application temperature	+5°C to +40°C
Failure stress (at +20°C, at 28 days)	1.5 to 3.5 MPa
Failure strain (at +20°C, at 28 days)	> 100%
Bond strength to concrete (28 days)	1.2 ± 0.2 MPa
Shore hardness (28 days)	80 ±5
Flammability (in accordance with DIN 4102-B2)	self- extinguishing

Features and Benefits

- Fast curing
- Easy to use, only addition of water needed
- Application by spraying with simple equipment
- Elasticity 80% to 140% depending on temperature
- No toxic components
- No classification needed for transport
- Available in 2 colors if specification is requiring a 2-coat application otherwise applied as a 1 coat system

Consumption

Consumption depends on the surface roughness but is typically between 3 and 6 kg per m². For more information, please refer to the Method Statement

Packaging

MasterSeal® 345 is available in 15 kg plastic bags, (60 bags on a pallet).

Shelf Life

MasterSeal® 345 has a shelf life of 12 months if stored in original, unopened bags between +5 °C to +40°C. The product must be kept out of direct sunlight. The storage area must be kept dry.



Notes

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Master Builders Solutions for the Construction Industry

MasterAir

Complete solutions for air entrained concrete

MasterBrace

Solutions for concrete strengthening

MasterCast

Solutions for the manufactured concrete product industry

MasterCem

Solutions for cement manufacture

MasterFiber

Comprehensive solutions for fiber reinforced concrete

MasterEmaco

Solutions for concrete repair

MasterFinish

Solutions for formwork treatment

MasterFlow

Solutions for precision grouting

MasterGlenium

Solutions for hyperplasticized concrete

MasterInject

Solutions for concrete injection

MasterKure

Solutions for concrete curing

MasterLife

Solutions for enhanced durability

MasterMatrix

Advanced rheology control solutions for self-consolidating concrete

MasterProtect

Solutions for concrete protection

MasterPozzolith

Solutions for water-reduced concrete

MasterPolyheed

Solutions for mid-range concrete

MasterRoc

Solutions for underground construction

MasterSeal

Solutions for waterproofing and sealing

MasterSet

Solutions for set control

MasterRheobuild

Solutions for high strength concrete

MasterPel

Solutions for water tight concrete

MasterTop

Solutions for industrial and commercial floors

Ucrete

Flooring solutions for harsh environments

Master X-Seed

Advanced accelerator solutions for concrete

www.master-builders-solutions.com

Master Builders Solutions Yapı Kimyasalları San.ve Tic. Ltd. Şti.

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Sok. Can İş Merkezi No: 5/2 06520 Balgat /
Ankara
Tel: 0312 285 39 07

Bursa

Kükürtlü Mah. Kükürtlü Cad. No: 67 Tan İş
Merkezi C Blok D: 12 Kat: 4 Bursa
Tel: 0224 232 32 63

Kocaeli

GEBZE OSB2 Mah. 1000. Cad. No:1017 /1
41420 Çayırova / Kocaeli
Tel: 0262 751 22 43

Trabzon

Arsin Organize San. Bölğ. Yeşil Yalı Mah. 5.
Cad. No:6/a Arsin/Trabzon
Tel: 0462 711 11 30