

MasterSeal 6100 FX

Elastomeric waterproofing crack bridging A4 class, single-component, high yield, for concrete structures, masonry and for slabs covered with asphalt.

MATERIAL DESCRIPTION

MasterSeal 6100 FX is a single-component elastomer, white, specific for waterproofing and protecting reinforced concrete structures. Applied by brush, trowel or spray, it creates a membrane resistant to positive and negative hydrostatic thrust with high crack bridging characteristics that remain unchanged even after the asphalt laying operations.

FIELDS OF APPLICATION

The material is suitable for waterproofing, for example, canals, dams, fire-fighting tanks, fish farming tanks, hydraulic tanks and pipes, foundations and counter-ground walls, and for waterproofing and protecting reinforced concrete slabs subsequently covered with asphalt.

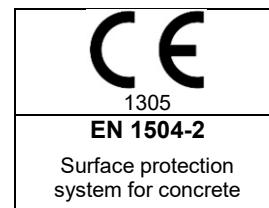
FEATURES AND BENEFITS

MasterSeal 6100 FX has the following peculiar characteristics:

- single-component: just add water to the mixture;
- does not contain any irritating classification typical of cementitious waterproofing products;
- "light": it is applied very easily;
- does not emit any odor during mixing and application: it does not show the typical ammonia odor of two-component cementitious products, especially in closed environments;
- resistant to UV rays and can therefore be left exposed;
- low consumption: in fact, 1.7 kg/m² are enough to achieve a thickness of 2 mm;
- quick: after about 2 hours the second layer can be applied and after only 3 days it is completely waterproof and can also be covered with asphalt;
- by spray and trowel it is possible to apply 2 mm thickness in a single layer;
- impermeable to water in positive and negative thrust;
- elastic at both high and low temperatures: Static Crack Bridging class A4 (1.25 - 2.5 mm) at 160°C and A3 (0.5 - 1.25 mm) at -10°C and dynamic class B3 .1 at -10°C;
- compatible with contact with asphalt up to 180°C;
- certified for contact with drinking water (Ministerial Decree 174 6/4/2004 and Legislative Decree 31 2/2/2001);

- contributes to obtaining LEED credits in the design phase;
- complies with the principles defined in UNI EN 1504/2 ("Concrete surface protection systems") and the relative acceptance limits with regard to humidity control, physical resistance and increase in resistivity.

In compliance with the European Regulation (EU No 305/2011 and EU No. 574/2014) the product is provided with the CE marking according to UNI EN 1504-2 and the relative DoP (Declaration of Performance).



COVERAGE

	Kg/m ²
As waterproofer	1.7 for 2 mm thickness (minimum thickness 2 mm)
For deck slabs covered with asphalt	2.5 for 2.2 mm thickness (minimum thickness 2.2 mm)

PACKAGING

15 kg bag

STORAGE

Store the product in a sheltered, dry place at a temperature anywhere between +5°C and +30 °C.

Technical Information	
Dough density, EN 1015-6	1,1 kg/liter
Workability time	45 minutes a + 20°C
Mixing water	30 minutes a + 30°C
Recoating time at 20 ° C	5,5 – 6,2 l/bag
Application temperature	8° C – +40°C
Full garment	3 days (a + 20°C)
Cleaning tools	water
Operating temperature	- 20° C – +80°C

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Essential characteristic in accordance to UNI EN 1504/2 (2 mm)			Limits and class	Performances	
Adhesion	In the absence of thermal cycles	UNI EN 1542 on substrate MC (0,40) EN 1766	> 0.8 MPa	> 1.5 MPa	
	After 50 freeze / thaw cycles with UNI EN 13687/1 de-icing salts		> 0.8 MPa	> 1.5 MPa	
	After contact with Binder type bituminous conglomerate at 180 ° C	UNI EN 13653		0.5 MPa	
Crack bridging ability at 23°C, UNI EN 1062/7		Static	23°C	Classes A ₁ ; A ₂ ; A ₃ ; A ₄ ; A ₅	Class A ₄
			-20°C		Class B _{3.1}
		Dyn	23°C	Class B ₁ , B ₂ B _{3.1} B _{3.2} B _{4.1} B _{4.2}	Class A ₃
			-20°C		Class B _{3.1}
Crack bridging ability Static UNI EN 1062/7 after contact with Binder type bituminous conglomerate at 160 ° C			Classes A ₁ ; A ₂ ; A ₃ ; A ₄ ; A ₅	Class A ₃	
Permeability	To Water vapor	UNI EN ISO 7783/1. Equivalent air thickness S _d , S _d = μ · s, μ = coefficient Vapor diff., S = thickness	Class I: S _d < 5 m (Permeable) Class II: S _d ≥ 5 e ≤ 50 m Class III: S _d > 50 m (Non Perm.)	S _d < 1,5 m, Class I	
	to CO ₂	UNI EN 1062/6. Equivalent thickness of air S _d , S _d = μ · s, μ = coeff. Diff. CO ₂	S _d > 50 m	S _d > 100 m	
	To water	For capillary absorption EN 1062/3	< 0,1 kg·m ⁻² ·h ^{-0,5}	≤ 0,01 kg·m ⁻² ·h ^{-0,5}	
Mechanical resistance	Impact	UNI EN ISO 6272	Class I: 4 N·m, Class II: 10 N·m Class III: 20 N·m	Class I	
	Abrasion	UNI EN ISO 5470/1 (1000 g grindstone H22/1000 cycles)	Weight loss < 3000 mg	< 1200 mg	
UV resistance	Aging under artificial atmospheric agents (2000 hours of UV rays and condensation), UNI EN 1062/11		No swelling, cracks or flaking	No swelling, cracks or flaking	
Essential characteristic in accordance to hydraulic pressure			Limits and class	Performances	
Positive hydraulic pressure resistance, UNI EN 12390/8 (5 bar)			Guidelines Cons. Sup. LL.PP Average penetration <20 mm Penetration. maximum <50 mm	< 20 mm < 50 mm	
Resistance to negative hydraulic pressure, UNI 8298/8			0 to 2,5 bar	2,5 bar	

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APPLICATION SHEET

TEMPERATURE

The application can take place when the ambient temperature is between + 8°C and + 40°C.

PREPARATION OF THE CONCRETE SUBSTRATE

HEALTHY CONCRETE

The preparation of all surfaces must include the removal of all inconsistent surface parts, greases, oils, traces of release agents and must be carried out by pressure washing, hydro-sandblasting or sandblasting.

DEGRADED CONCRETE

Remove the degraded concrete layer or contaminated by oils, greases or other substances and then restore it to quick drying with MasterSeal P 385 D mixed with water only. If quick-drying repair is not required, repair the deteriorated concrete using mortars from the MasterEmaco range.

COMES OF WATER

They must be treated with MasterSeal 590 quick-setting mortar. For executive details, consult the relative technical data sheet.

SHELLS

The shells must be made with MasterSeal 590 or with MasterSeal P 385 D mixed with water only. If it is not possible to make the coves (for example in swimming pools covered with tiles that require an angle of 90°), reinforce the wall-floor connection using the MasterSeal 924 strip. For executive details, consult the relative technical data sheets.

JUNCTIONS FROM BRIDGE WALL OR ANY CORNERS

Make the shell with MasterEmaco or use the waterproofing strip MasterSeal 924 or MasterSeal 944 (for more details refer to the relative technical data sheet).

PREPARATION OF THE SUPPORT IN BRIDGE SLABS

If the asphalt layer is present, proceed with a milling of the support and subsequent pressure washing of the entire surface to be treated in order to remove the dust and fragments left over from the previous processing.

If, on the other hand, a restored or newly built slab needs to be waterproofed, it will be sufficient to leave the rough support, proceed with a pressure washer on the entire surface to be treated in order to remove the dust and fragments left over from the previous processing.

In this application, no shells should be provided, but proceed with the application of the product on the vertical at right angles.

SUPPORT CLEANING AND SATURATION

Once the substrate has been prepared, carefully wash the entire surface to be treated to saturate and remove any residual sandblasting dust.

The substrate must be saturated with a dry surface.

MIXING

MasterSeal 6100 FX must be mixed with a whisk drill at low rotation speed (400-600 rpm). Mix a 15 kg bag with 5.6 - 6.2 liters of water. Mix thoroughly until a smooth, lump-free, fluid mixture is obtained. Let the dough rest for 2 minutes in order to allow the complete dispersion of the polymer.

Then mix again for a maximum of 2 minutes. In the same application, follow the same mixing ratio for the different mixtures in order to have the same colour tone of the coating.

APPLICATION

The application can also be carried out in a single coat with a spatula, brush or spray by means of a screw pump model Turbosol T7 or equivalent. For the set up of the pump, according to the type of construction site, the seasonality, the possible state of wear of the pump itself, always refer to the instructions provided by the manufacturer of the machines. Before starting the construction site, always provide this setting in a test field, also requesting the assistance of the manufacturer / hirer of the spraying machinery.

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It can also be laid with a stiff bristle brush in two coats, spaced approximately 2-5 hours apart (depending on the environmental conditions) from each other.

In the first layer an addition of further water is allowed but the total quantity must never exceed 6.4 liters per bag. The second layer must be "crossed" with the first layer to ensure maximum impermeability to the intervention. However, it is recommended to apply the second layer only when the previous one is dry enough to resist rubbing.

SEASONING

If the application is carried out in particularly severe conditions from the thermo hygrometric point of view, i.e. low relative humidity, windiness and sun, it is advisable to protect the treated surfaces with protective sheets. Hardening and maturation depend on the temperature. After only 3 days at 20 ° C it has reached the main waterproof characteristics and can therefore be put into service.

CLEANING

If MasterSeal 6100 FX is used to waterproof, for example, drinking water tanks, fish tanks, it is recommended, after application and curing, to provide at least two pressurized water washes at intervals of a few hours from each other in order to remove any traces of construction site work residues.

SANITIZATION OF THE TANKS

Use a 1% sodium hypochlorite (bleach) solution in water. Leave to act for at least 30 minutes and maximum 60 minutes, then wash thoroughly with tap water. In the case of heavily soiled surfaces, this process can be repeated a second time or higher concentrations of sodium hypochlorite (maximum 5%) can be used.

NOTES ON THE HARDNESS OF THE CONTACT WATER

To evaluate the compatibility of the waterproofing coating with the hardness of the contact water, refer to the following table:

Water hardness in French degrees ° f	Type of water	MasterSeal 6100 FX
Up to 4°f	Very sweet	Eligible
From 4°f up to 8°f	Desserts	Eligible
From 8°f up to 12°f	Medium hard	Eligible
From 12°f up to 18°f	Discret. hard	Eligible
From 18°f up to 30°f	Hard	Eligible
> 30°f	Very hard	Eligible

SAFETY INSTRUCTION

For information on the correct and safe use, transport, storage and disposal of the product, consult the most recent Safety Data Sheet.

OTHER SERVICES

For price analysis, specifications, supplementary brochures, references, reports and technical assistance, visit the website www.master-builders-solutions.com/it-it or contact infomac@mbcc-group.com.

Scan the QR code to visit the product page and download the latest version of this datasheet.



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Since 16/12/1992, Master Builders Solutions Italia Spa has been operating under a Certified Quality System compliant with the UNI EN ISO 9001 Standard. Furthermore, the Environmental Management System is certified according to the UNI EN ISO 14001 Standard and the Safety Management System is certified according to the UNI ISO 45001 Standard.

Master Builders Solutions Italia Spa

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This version supersedes all the previous ones.