

MasterSeal® M 811

Two component polyurea hybrid, pigmented, elastic, highly reactive, spray applied (machine application) waterproofing membrane with short curing time

DESCRIPTION

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 waterproofing 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

MasterSeal® M 811 features high elasticity, excellent tensile strength and elongation and a good wear resistance. This highly reactive waterproofing membrane allows its installation on vertical surfaces without problem. More over this fast-curing membrane can be re-coated within a few hours.

APPLICATION PROCEDURE

Surface Preparation

The preparation of the substrate and the use of the appropriate primer are of paramount importance. All surfaces to which **MasterSeal® M 811** is applied should be sound, clean and dry and free from oil or grease, loose particles and any other substances which may impair adhesion. For substrate pre-treatment prior to the primer application see primer technical data sheet.

Concrete and cementitious screed

Concrete and other cementitious substrates must have

a minimum pull off strength of 1.5 N/mm². Any laitance present on the surface must be removed mechanically. Shot blasting is the preferred method. Release oil and other contaminants which may impair adhesion must be removed prior to the application of the primer.

Asphalt (only indoor!)

The asphalt should be cleaned by high pressure water jetting. In mechanically stressed applications the load bearing capacity of the asphalt should be suitable for the intended use and should be shot blasted so that at least 60 % of the surface aggregate is exposed. Blisters should be warmed, re-dressed and a de-bond tape applied over.

Bituminous sheeting

MasterSeal® M 811 can be applied on bituminous sheeting if no fire-protection is required. For further details, please consult your local sales office.

Iron / steel

Should be sand blasted to an Sa 2 ½ finish prior to application of the primer.

Primer

Use the following guide to select the appropriate primer:

Substrate	Primer
Bitumen felt	MasterSeal® P 698
Concrete/cementitious screed	MasterTop® P 617 or MasterTop® P 677
Asphalt screed (mind. AS-IR10)	MasterTop® P 660 or MasterTop® BC 375 N
Plywood (preliminary tests are recommended)	MasterTop® P 660 or MasterTop® P 691
GRP/GFK	MasterTop® P 691
Iron and steel	MasterTop® P 681
Non-ferrous metals (e.g. aluminium, zinc)	MasterTop® P 684
Aged MasterSeal membranes	MasterTop® P 691

In some circumstances, other primers may be more appropriate. For further details, please consult your local sales office

Application

MasterSeal® M 811 can only be applied by means of a suitable two component spray machine. **MasterSeal® M 800** system solutions and applications should always be carried out by qualified dealers certified by **Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti.** MasterSeal M 811 should only be applied to properly prepared substrates. Surrounding areas should be protected from overspray by masking off with e.g. polyethylene sheet or paper. Care should be taken

MasterSeal® M 811

Two component polyurea hybrid, pigmented, elastic, highly reactive, spray applied (machine application) waterproofing membrane with short curing time

to prevent spray mist being carried by wind by erecting suitable barriers. **MasterSeal® M 811** should be applied within the recommended temperature and relative humidity limits. The temperature of the substrate must be at least 3 K above the dew point during the application

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

Re-coatings intervals

Next layer	Hours min.			Hours max.		
	Temperature (°C)			Temperature (°C)		
	10	20	30	10	20	30
MasterSeal M 811	immediately			8*	4*	2*
MasterSeal P 691	4	2	2	14 days**		
Wear coat	4	3	2	36*	24*	16*
Top Coat	4	3	2	24*	16*	12*

* If the re-coating times are exceeded or if rain falls or dew forms on the **MasterSeal® M 811** then allow to dry thoroughly and apply **MasterSeal® P 691** according to manufacturers instructions before proceeding.

** If the re-coating interval exceed 14 days, the **MasterSeal® M 811** must be lightly abraded and the dust removed by vacuum cleaning and solvent wipe prior to the application of the **MasterSeal® P 691**.

TOPCOATS

MasterSeal® M 811 does not have sufficient UV and weather resistance to be used in exposed applications without protection. A number of top coats are available including **MasterSeal® TC 259** for most standard applications, and **MasterSeal® TC 258** which can be broadcast with dry silica sand to provide a hard wearing, slip resistant finish. Other top coats may be more suitable for specific applications, consult your local sales office for further details.

FINISHING AND CLEANING

Re-useable tools should be cleaned carefully with Cleaner 40 or e.g. solvent naphtha.

PACKAGING

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

WATCH POINTS

This product conforms to the EU directive 2004/42/EG (Deco-Paint directive) and contains less than the maximum allowable VOC limit (Stage 2, 2010) According to the EU directive 2004/42, the maximum allowable VOC content for the Product Category IIA / j is 500 g/l (Limit: Stage 2, 2010). The VOC content for **MasterSeal® M 811** is < 500 g/l (for the ready to use product).

Technical data*			
Properties	Standard	Data	Unit
Chemical base	-	Polyurea hybrid	-
Mixing ratio	A : B	100 : 100 100 : 106	by volume by weight
Density (at 23 °C'de)	-	1.06 1.08	g/cm ³ g/cm ³
Viskozite (at 23 °C'de)	-	1725 1800	MPas 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 811

Two component polyurea hybrid, pigmented, elastic, highly reactive, spray applied (machine application) waterproofing membrane with short curing time

Technical data after curing*			
Properties	Standard	Data	Unit
Shore-A-hardness	-	85	-
Tensile strength	DIN 53504	8	N/mm ²
Elongation	DIN 53504	350	%
Tear strength	DIN 53515	45	N/mm
Water vapour permeability (1,5 mm, 25 °C/75 % r.h.)	BS 3177	19	g/(m ² .d)

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

STORAGE

Store in original containers under dry conditions at a temperature between 15° – 25° C. Do not expose to direct sunlight

SHELF LIFE

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

HEALTH AND SAFETY PRECAUTIONS

In its cured state, **MasterSeal® M 811** is physiologically non-hazardous. The following protective measures should be taken when working with this material:

Wear safety gloves goggles and protective clothing. Avoid contact with the skin and eyes. In case of eye contact seek medical attention. Avoid inhalation of the fumes. Respiratory protection must be worn when spraying or when in the vicinity of the spraying operation.

When working in well ventilated areas, a combined charcoal filter and particle filter mask (A-P2) should be worn. When working in less well ventilated and in confined spaces, air-fed helmets are to be worn by sprayer and assistant(s). When working with the product do not eat, smoke or work near a naked flame. For additional references to safety-hazard warnings, regulations regarding transport and waste management please refer to the relevant Material Safety Data Sheet. The regulations of the local trade association and/or other authorities, regulating safety and hygiene of workers handling polyurethane and isocyanates must be followed.

DISCLAIMER

The technical information given in this publication is based on the present state of our best scientific and practical knowledge. **Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti.** is only responsible for the quality of the product. **Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti.** is not responsible for results that may occur because the product is used other than advised and/or out of instructions regarding the place and the method of use. This technical form is valid only till a new version is implemented and nullifies the old ones.

CONTACT INFORMATION

Master Builders Solutions Yapı Kimyasalları Sanayi ve Ticaret Ltd. Şti.

Adres: Barbaros Mah. Begonya Sok.

Nidakule Kuzey Ataşehir, C Kapısı

No:3 E/5, 34746 Ataşehir İstanbul / Türkiye

Tel: 0216 217 88 00

Mail: mbs.tr@mbcc-group.com

Web: www.master-builders-solutions.com/tr-tr


© Registered trademark of a MBCC Group member in many countries of the world

MasterSeal® M 811 Technical Data Sheet -Revision Date: 10/2023

MasterSeal® M 811


Two component polyurea hybrid, pigmented, elastic, highly reactive, spray applied (machine application) waterproofing membrane with short curing time

CE-MARKING (EN 1504-2)

	
1119	
Master Builders Solutions Deutschland GmbH Donnerschweer Str. 372, D-26123 Oldenburg	
14	
481102	
EN 1504-2:2004	
Surface protection product - coatings EN 1504-2: ZA.1d, ZA.1e, ZA.1f and ZA.1g	
Abrasion resistance	≤ 3000 mg
Permeability to CO ₂	Sd > 50
Permability to water vapour	Class II
Capillary absorption and permeability to water	< 0.1 kg/(m ² xh ^{0.5})
Thermal compatibility after freeze-thaw cycling	≥ 1.5 N/mm ²
Resistance to severe chemical attack	Reduction of hardness < 50 %
Crack bridging ability	B 4.2 (-20° C)
Impact resistance	Class I
Adhesion strength by pull-off test	≥ 1.5 N/mm ²
Reaction to fire	Cfl-s1
Skid resistance	Class II

NPD=No performance determined. Performance determined in system buildup **MasterSeal Traffic 2203**

CE-MARKING (EN 13813)

	
Master Builders Solutions Deutschland GmbH Donnerschweer Str. 372, D-26123 Oldenburg	
14	
481102	
EN 13813: 2002	
Synthetic resin screed for use internally in buildings EN 13813: SR- B1,5-AR1-IR4	
Essential characteristics	Performance
Fire behavior	Efl
Release of corrosive substances	SR
Water permeability	NPD
Wear resistance	< AR 1
Bond strength	>B 1,5
Impact resistance	>IR 4
Impact sound insulation	NPD
Sound absorption	NPD
Heat insulation	NPD
Chemical resistance	NPD
Slip/Skid resistance	NPD
Emissions behavior	NPD

NPD = No performance determined. Performance determined in system build up **MasterSeal Traffic 2203**