

MasterSeal[®] M 635

Flexible and elastic single component polyurethane waterproofing membrane

DESCRIPTION

MasterSeal M 635 is a single component, liquid applied polyurethane based, elastomeric coating for roof waterproofing.

RECOMMENDED USES

- Applicable for outdoor use
- Can be applied on concrete and cement mortar.
- Waterproofing of roofs, balconies and terraces. Contact the Technical Service of your local BASF 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.
- Tar free
- Root resistant
- Easy to apply.
- Excellent crack bridging capacity even at low temperatures.
- Monolithic – no laps, welds or seams.
- High water vapor permeability - low risk of blistering.
- Resistant to standing water

APPLICATION METHOD

(a) Surface Preparation

All substrates (new and old) must be structurally sound, dry and free of laitance and loose particles. Clean of oil, grease, paint stains and other adhesion impairing contaminants. Profile mechanically the surface by shot blasting, high-pressure water jetting or other suitable mechanical preparation method. After surface preparation, the pull off value of the substrate should exceed 1 N/mm² (check with an approved pull-off tester). Temperature of the substrate should be minimum +5 °C and maximum +35 °C. The residual moisture content of the substrate must not exceed 4% (check with e.g. CM device). The temperature of the substrate must be at least 3 K above the current dew point temperature.

Primer: Suitable primer for using **MasterSeal M 635** on concrete or cementitious mortar

substrates is MasterSeal P 640. Refer to PDS for application guidelines.

Before the surface application, all detail areas and any singular points like wall-floor connections, chimneys, joints, substrate cracks, penetrations, corners, etc., must be treated. For this apply one layer of MasterSeal M 635, then place a correct cut stripe of geotextile mat (110g/m²) into the wet material. Press in to fully soak without leaving air pockets. Then fully saturate the geotextile mat by applying additional MasterSeal M 635. All lap joints in the mat reinforcement should be minimum 50 mm.

(b) Mixing

(c) Application

Homogenize **MasterSeal M 635** with mechanical stirring before use. Pour the **MasterSeal M 635** onto the primed substrate and spread with a roller or brush at a maximum consumption of 0.9 kg/m² per layer.

Working within the recommended over coating times, apply a second layer of **MasterSeal M 635** at a maximum consumption of 0.9 kg/m².

For demanding applications, apply a third layer of MasterSeal M 635.

For details like wall-floor connections, 90° angles, chimneys, pipes, waterspouts (siphon), etc. it is recommended to reinforce with a geotextile mat (110g/m²)

Do not apply **MasterSeal M 635** over 0.6mm dry film thickness per layer (corresponds to 0.9 kg/m² consumption)

Top Coat:

MasterSeal M 635 does not have sufficient UV and weather resistance to be used in exposed applications without protection. In exposed applications, apply one or two coats of MasterSeal TC 640. Refer to PDS for application guidelines. MasterSeal TC 640 can be broad- casted with dry silica sand to provide a hard wearing, slip resistant finish.

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COVERAGE

Normally approx. 1.2 to 2.0 kg per m² are required in two - three coats, depending on chosen application method. These consumptions are theoretical and can vary according to the absorption and roughness of the support. It is essential to carry out representative trials on site to evaluate the exact consumption. Higher consumptions (for detailing's with geo textile fabric) are possible.

For best performance

The product must not be applied when the temperature is below +10 °C or above 30 °C. Do not mix solvents, sand or other products that could affect the products properties must not be added. Do not apply in more than 0,6 mm thickness per layer. It is recommended to use a reinforcement mat for junctions and profile changes.

FINISHING AND CLEANING

While still wet clean with solvent (e.g. Cleaner 40 or solvent naphtha). Once cured it can only be removed mechanically.

PACKAGING

MasterSeal M 635 is available in 25 kg and 6 kg pails

COLOUR

White, red and grey

STORAGE /SHELF LIFE

Store in cool and dry warehouse conditions between 15 - 25 °C. Do not expose to direct sunlight. Shelf life in these conditions is 9 months in unopened original containers.

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 635** is < 500 g/l (for the ready to use product).

HANDLING / PRECAUTIONS

In its cured state, **MasterSeal M 635** 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 fumes. 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 regarding safety and hygiene of workers handling polyurethanes and isocyanates must be observed.

TDS Ref. No. : M'Seal M635/02/0418

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The technical information and application advice given in this BASF Construction Chemicals publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

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NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by BASF Construction Chemicals either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not BASF Construction Chemicals, are responsible for carrying out procedures appropriate to a specific application.

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Technical data*			
Properties	Standard	Data	Unit
Chemical base	-	Polyurethane	-
Mixing ratio	A : B	single component	-
Working time at 20 °C	-	40	min
Re-coating interval / Open to pedestrian traffic at 20 °C	-	min. 12 max. 48	h h
Rain safe at 20 °C	-	4	d
Fully cured at 20 °C	-	7	d
Substrate and ambient temperatures	-	min. 8 max. 35	°C °C
Permissible relative humidity	-	max. 80	%

Technical data after curing*

Properties	Standard	Data	Unit
Service temperatures		min. - 20 max. 80	°C °C
Shore-A-hardness	ASTM D 2240	65±5	-
Crack bridging	ASTM C1305	up to 2	mm
Elongation at break	ASTM D412 / DIN 52455	>400	%
Tensile strength	ASTM D412 / DIN 52455	> 4	N/mm ²
Water vapor permeability	ISO 9932:91	>30	g/m ² /24h
Hydrolysis (5% KOH, 7days cycle)	In house	No significant change	
Resistance to root penetration	UNE 53420	Resistant	
Adhesion to concrete	ASTM D 903	> 2	N/mm ²

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

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