

PRODUCT DATA SHEET

Sikalastic® M 689

(formerly MSeal M 689)

A highly elastic, ultra-fast curing, spray applied 100% polyurea membrane for use in waterproofing applications

DESCRIPTION

Sikalastic® M 689 is a 2- part, solvent-free, pure polyurea, hot spray applied, elastic, very fast curing, waterproofing and protection membrane. The fast curing allows an immediate return-to-service time and the spray application allows fast coverage of the substrate.

USES

Sikalastic® M 689 may only be used by experienced professionals.

It is used in a variety of waterproofing applications, especially where a high degree of chemical and mechanical resistance is required.

This includes:

- Waste water treatment plants (urban and industrial), both in the inflow and outflow areas.
- Sewage effluent pipelines.
- Steel and concrete pipes.
- Secondary containment bunds in chemical and petro-chemical industries.

Additionally, Sikalastic® M 689 can be applied on:

- Flat and architectural roofs.
- Horizontal and vertical substrates.
- Internal and external areas.
- Concrete, cementitious mortar or steel substrates.
- Reinforced concrete to protect it against carbonation, chloride induced corrosion or chemical attack in industrial environments.

Contact your local Sika representative regarding any application required not mentioned here.

FEATURES

- Low emission (conform to AgBB)
- Low viscosity
- Excellent bond to substrate
- High moisture tolerance
- ultra-fast curing
- Monolithic membrane
- Excellent chemical resistance
- Waterproof and resistant to standing water
- Fully bonded to substrate
- High water vapour permeability
- High resistance to carbon dioxide diffusion
- High abrasion and impact resistance
- High elasticity and crack bridging capability
- Thermoset – does not soften at high temperatures

CERTIFICATES AND TEST REPORTS

- CE Marking and Declaration of Performance to EN 1504-2 - Surface protection product for concrete - Coating

PRODUCT INFORMATION

Composition	Pure polyurea		
Packaging	Part A (Polyamine)	187 kg drums	
	Part B (Isocyanate)	210 kg drums	
	Refer to current price list for packaging variations.		
Colour	Sikalastic® M 689 is available in the following colour combination: Part A: <ul style="list-style-type: none">▪ Dark grey close to RAL 7043,▪ Medium grey close to RAL 7042,▪ Light grey close to RAL 7035▪ Black▪ Colourless (to be coloured with Sika authorized pigment paste by approx. 3 - 5 %. Stir well before use!) Part B: Unpigmented		
Shelf life	Part A: 12 months from date of production Part B: 9 months from date of production		
Storage conditions	The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +15 °C and +25 °C. Do not expose to direct sunlight. Always refer to packaging.		
Density	Part A	~1.01 kg/l	
	Part B	~1,11 kg/l	
	Mix	~1,10 kg/l	
	Values at +20 °C		
Product declaration	EN 1504-2: Surface protection product for concrete - Coating		
Viscosity	Temperature	Part A	Part B
	+ 25°C	220 mPas	800 mPas

TECHNICAL INFORMATION

Shore A hardness	> 90	
Shore D Hardness	> 40	
Mechanical resistance	< 150 mg	H22 / 1000 g / 1000 cy
Resistance to impact	> 20 Nm (Class III)	(EN ISO 6272/2)
Tensile strength	> 20 N/mm ²	
Tensile strain at break	~ 425 %	(DIN 53504)
Tear strength	58 N/mm ²	(DIN 53515)
Crack bridging ability	Class A5 Class B4.2 (-20 °C)	Static Dynamic
Reaction to fire	Cfl-s1	(DIN EN 13501-1)
Chemical resistance	Resistant to many chemicals. Contact Sika Technical Services for additional information.	
Behaviour after artificial weathering	no changes	(EN 1062-11)
Permeability to water vapour	Sd value H ₂ O < 5m	
Capillary absorption	0,002 kg/m ² /h ^{0,5}	(DIN EN 1062-3)

Permeability to carbon dioxide	Sd value CO ₂ > 120m	
Skid / slip resistance	63 (Class II)	Dry
	30	Wet
Service temperature	-30 °C min. / +130 °C max.	dry
	0 °C min. / +80 °C max.	high moisture, but not wet
	0 °C min. / +55 °C max.	wet

SYSTEM INFORMATION

Systems

Exposed Waterproofing

Sikalastic® M 689 is applied in one coat or two coat and sealed with Top Coat Sikalastic® U-Coating.

Layer	Product	Consumption
1. Primer	Depending on the substrate	Refer to individual Product Data Sheet
2. Waterproofing	Sikalastic® M 689	~ 2.2 kg/m ² (~1.10 kg / m ² per mm)
3. UV Protection	Sikalastic® U-Coating	~ 0.2 kg/m ²

Non-Exposed Waterproofing

Sikalastic® M 689 is applied in one or two coats

Layer	Product	Consumption
1. Primer	Depending on the substrate	Refer to individual Product Data Sheet
2. Waterproofing	Sikalastic® M 689	~ 2.2 kg/m ² (~1.10 kg / m ² per mm)

Note: These figures are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level and wastage.

Primers

Substrate	Primer	Consumption
Concrete	Sikafloor®-161 HC with Sikadur 501 Gritting Sand broadcast*	Refer to individual Product Data Sheet
Other	Contact your Sika technical services to advice	-

*Contact Sika technical team to advice and suggest on site to check suitability.

APPLICATION INFORMATION

Mixing ratio	Part A : Part B = 1 : 1 (by volume)
Consumption	~1,10 kg / m ² / mm
Layer thickness	> 2mm
Material temperature	> +70 °C
Ambient air temperature	+5 °C min. / +35 °C
Relative air humidity	< 90 %
Dew point	Beware of condensation. The substrate and uncured applied floor material must be at least +3 °C above dew point to reduce the risk of condensation or blooming on the floor finish.
Substrate temperature	+5 °C min. / +35 °C max.
Substrate moisture content	< 4 %

Curing time

Final cure ~24 hours at +20 °C
 Time is approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

Gel time

~8 seconds at +20°C

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

FURTHER DOCUMENTATION

- Sika Method Statement: Sikalastic® M 689

IMPORTANT CONSIDERATIONS

Reference must be made to the Sika® Method Statement: Sikalastic® M 689

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS**EQUIPMENT**

Reference must be made to the Sika® Method Statement: Sikalastic® M 689

SUBSTRATE QUALITY

Reference must be made to the Sika® Method Statement: Sikalastic® M 689

SUBSTRATE PREPARATION

Reference must be made to the Sika® Method Statement: Sikalastic® M 689

MIXING

Reference must be made to the Sika® Method Statement: Sikalastic® M 689
 Note: Both components must be heated up to +70°C. The accuracy of mixing and dosage must be controlled regularly with the spray equipment. Thoroughly stir Part A (Amine) using a drum stirrer until a uniform consistent colour is obtained.

APPLICATION

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions. Prior to application, confirm substrate moisture content, relative air humidity, dew point, substrate, air and product temperatures. Reference must be made to the Sika Method Statement: Sikalastic® M 689

CLEANING OF EQUIPMENT

Clean all tools with Thinner C immediately after use. The application equipment must be cleaned and filled with Mesamoll. Hardened material can only be removed mechanically.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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**Product Data Sheet**

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