

PRODUCT DATA SHEET

Sikalastic® M 678

(formerly MSeal M 678)

Rapid curing, chemical resistant, elastomeric waterproofing membrane

DESCRIPTION

Sikalastic® M 678 is a solvent free, two component, high performance polyurea hybrid based waterproofing membrane, with high resistance to common chemicals. Using a specially designed spraying machine, the two components are pre- heated and spray applied, to a rapid curing, elastomeric, waterproofing membrane.

USES

Sikalastic® M 678 is recommended for waterproofing of large structures exposed to aggressive waters, containing potable water and other containment structures.

Typical application areas include:

- Water containment areas. Potable and contaminated
- Primary & Secondary containment tanks
- Waste water treatment tanks
- Protection & waterproofing of infrastructures
- Roof and podium deck waterproofing
- Planters and landscape area waterproofing

CHARACTERISTICS / ADVANTAGES

- Fast reacting - Rapid installation. Does not run when applied on vertical surfaces
- Seamless - No risk of leaky seams and laps.
- Spray applied - Fast installation on large surfaces; easy application on complex details.
- Fully bonded - Eliminates water collection behind membrane even if punctured.
- High tensile strength - Excellent ability to accept movements without rupturing.
- Elastomeric - Excellent crack-bridging ability.
- High tear resistance - Minimised risk of damage to membrane in service.
- Low Tg (Glass Transition Temperature) of -20°C - Remains elastomeric at very low temperatures. Performance unaffected in below freezing conditions.
- Root penetration resistant for landscape/planter areas
- Solvent-free - Improved safety.
- Potable water contact approved – suitable for tanks containing drinking water

PRODUCT INFORMATION

Chemical base	Hybrid Polyurea	
Packaging	Sikalastic® M 678 Part A and B is supplied in 200kg drums.	
Shelf life	12 months from date of production	
Storage conditions	Store out of direct sunlight, clear of the ground on pallets protected from rainfall	
Density	Part A	1.03 kg/L (at 25°C)
	Part B	1.10 kg/L (at 25°C)
Thickness	1.5-2.0 mm (Minimum 2 coats)	

Volatile organic compound (VOC) content	≈ 22 g/L ,Pass	Maxm Limit as per (IS 101-P2/Sec 3) : 2015 < 50 g/L
Viscosity	Part A	1000 ± 150 cps(at 25°C)
	Part B	1250 ± 200 cps (at 25°C)
Solid content by volume	≈ 100%	

TECHNICAL INFORMATION

Shore A hardness	> 85	(DIN 53505)
	≈ 87	(ASTM D2240-2005)
Abrasion resistance	Taber's Abrasion Resistance	≈ 10.7 mg (ASTM D4060)
Resistance to static puncture	> 1000 N	(ASTM E154)
Tensile strength	>16 N/mm ²	(DIN 53504)
	≈ 20 N/mm ²	(ASTM D412)
Elongation at break	> 550 % (Elongation at break)	(DIN 53504)
	> 600 % (Elongation at break)	(ASTM D412)
Tensile adhesion strength	≥ 3.5 MPa	(ASTM D4541)
Tear strength	> 72 N/mm	(ASTM D624-2000)
Crack bridging ability	Static	Upto 2mm (ASTM C836/ EN 1062-7)
	Dynamic	Pass (ASTM C1305)
Foldability at low temperature	No cracks upto - 40°C	
Chemical resistance	Excellent	
Behaviour after artificial weathering	QUV Accelerated Weathering,1000 hrs exposure	Grey scale 1.01(Average) No cracking and delamination (ASTM G154-2000)
Resistance to water penetration	> 7 bars	(ASTM D5385)
Mixing ratio	Part A : Part B = 1:1 (By Volume)	
Consumption	Sikalastic® M 678 is applied approximately at 1.05 –2.1 kg/m ² depending on the substrate.This corresponds to a cured film thickness(DFT) of approx. 1.0 – 2.0 mm. Details, corners require a higher coverage rate up to 4.0 kg/m ² or more.	
Product temperature	To be heated to 65-70 °C	
Ambient air temperature	+10 °C min. / + 40 °C max.	
Relative air humidity	Maximum upto 85 %	
Dew point	Beware of condensation. The substrate and uncured applied membrane must be at least +3 °C above dew point.	
Substrate temperature	+10 °C min. / + 40 °C max.	
Substrate moisture content	≤ 4 % parts by weight.	
Tack free time	≈ 60-120 secs	
Gel time	≈ 6-10 secs	

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.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

For detailed information on application, please obtain a copy of the "Application Guide for Sikalastic® M 678" from our Technical Services team.

Some tips for optimal performance

- For optimum chemical and mechanical performance thickness's greater than 1.5 mm should be used.
- For optimum spray results the material should be heated to 60-70 °C.
- Store Sikalastic® M 678 cool conditions in hot weather and warm conditions in cold weather.
- Repair voids, cracks and unevenness in substrates before application.
- Remove all surface contaminants and ensure substrate is dry.
- Avoid application during rain.
- Agitate Part A before application.
- Apply by spraying uniformly to recommended thickness using recommended spray machine.

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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