

PRODUCT DATA SHEET

Sikalastic®-680 AP

SINGLE COMPONENT HIGHLY ELASTIC POLYURETHANE WATERPROOFING MEMBRANE

DESCRIPTION

Sikalastic®-680 AP is a single component, liquid applied polyurethane waterproofing membrane for concrete structures that will be covered by protective topings. Sikalastic®-680 AP is flexible and provides a continuous seamless waterproofing membrane for a wide range of applications.

USES

- General use for non-exposed surface
- As a waterproofing membrane on non-exposed roofs, podiums, balconies, bathrooms, under screed or tile, etc.
- As waterproofing coat for external wall, basements and foundations

CHARACTERISTICS / ADVANTAGES

- Excellent adhesion on to concrete substrate
- High crack bridging ability
- Good impact and abrasion resistance
- Easy to use and quick drying
- Good thixotropic properties

PRODUCT INFORMATION

Composition	Polyurethane modified tar
Packaging	28 kg Pail
Colour	Black
Shelf life	9 months from date of production if stored properly in undamaged and unopened original sealed packaging.
Storage conditions	Store in cool and dry conditions. Protect from direct sunlight and humidity. Avoid contamination by water, alcohol, etc. Keep away product from heat, spark and flames.
Density	~1.55 kg/L
Solid content by mass	90%
Solid content by volume	81%

TECHNICAL INFORMATION

Shore A hardness	40	(ASTM D 2240)
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Tensile strength	~1.5 N/mm ²	(ASTM D 412)
Tensile strain at break	~500 %	(ASTM D 412)
Tensile adhesion strength	~0.6 N/mm ²	(ASTM C 1583)
Crack bridging ability	PASS (2-mm Opening)	(ASTM C 1305)
Water-vapour transmission rate	~ 30 g/m ² .day	(ASTM E 96)

SYSTEM INFORMATION

System structure

Standard Coating System*

Sikalastic®-680 AP is applied in 2 or 3 coats

Total consumption	≥ 1.4 - 2.1 kg/m ²
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Dry Film Thickness	≥ 0.8 - 1.1 mm
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*For partial reinforcement, Sika® Reemat Premium is applied at areas with high movement, irregular substrate or to bridge cracks, joints and seams on the substrate as well as for details.

Standard Reinforcement System

Sikalastic®-680 AP is applied in a base coat layer, reinforced with Sika® Reemat Premium and sealed with 1 - 2 coats of Sikalastic®-680 AP.

Total consumption	≥ 2.1 - 2.8 kg/m ²
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Dry Film Thickness	≥ 1.2 - 1.6 mm
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Layer	Product	Consumption
1. Primer	Sika® Thinner C**	≥ 0.25 kg/m ²
2. Base coat	Sikalastic®-680 AP	≥ 0.7 - 1.0 kg/m ² per coat
3. Reinforcement	Sika® Reemat Premium	-
4. Base coat	Sikalastic®-680 AP	≥ 0.3 - 0.5 kg/m ² per coat
5. Top coats	Sikalastic®-680 AP	≥ 0.6 - 0.7 kg/m ² per coat

**On very absorbent surfaces

Note:

1. Do not apply more than 0.75 kg/m² of Sikalastic®-680 AP per coat for layers without reinforcement.
2. These figures are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level and wastage.

APPLICATION INFORMATION

Ambient air temperature	+5 °C min / +45 °C max.
Substrate moisture content	≤ 6 % parts by weight Test method: Sika®-Tramex meter. No rising moisture according to ASTM (Polyethylene-sheet).
Drying time	~3 h (Tack free) (at +25 °C / 60 % r.h)

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.

IMPORTANT CONSIDERATIONS

- Not to be used as trafficable top coat
- Do not apply directly to wet and damp surface
- Do not thin with water or other solvents
- Do not apply to areas when rain is imminent
- Ensure adequate ventilation during application
- Allow 3 days (at +25 °C / 75 % r.h) drying period before flood test on treated area. For situations of low temperature or high humidity, prolonged drying time is inevitable.
- For damp substrate (not fully cured), a moisture barrier coat should be applied prior to the application of Sikalastic®-680 AP.
- For bitumen and asphalt surface, a barrier primer should be applied

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

SUBSTRATE PREPARATION

All substrates must be structurally sound, stable, dry and clean (compressive strength: min. 25 N/mm² and cohesive strength: min. 1.5 N/mm²). Smooth shiny surfaces are to be roughened while uneven surface to be leveled or filled first. All surfaces should be free of sharpness, loose materials, de-bonded coatings, curing compounds, release agents, wax residues, laitance, algae and moss, oils, dust, or any other bond inhibitors. Structurally unsound layers and surface contaminants are to be mechanically removed by abrasive blasting, blast tracking, grinding or equivalent methods. Cracks and faulty joints should be repaired.

PRIMING

On very absorbent surfaces, a primer coat (dilute Sikalastic®-680 AP with 5 % Sika® Thinner C) should be applied on the concrete surface at consumption of 0.25 kg/m², prior to the application of waterproofing membrane.

APPLICATION

- Sikalastic®-680 AP can be applied by brush, roller, trowel, or squeegee directly onto the treated substrate. Apply subsequent coats at different directions to the previous coat.
- Before applying any coating, the previous coat must be touch dry.
- Subsequent coats should be applied within a maximum period of 24 hours.
- The finished membrane should be protected from damage by other trades.

Standard Coating : Apply the primer if the substrate very porous.

1. Apply first coat around 0.7 kg/m² of Sikalastic®-680 AP.
2. Leave it dry follow the waiting time / overcoating table.
3. Apply the top coat with one or more additional coat of Sikalastic®-680 AP around 0.7 kg/m² per coat and leave it dry.

Standard Reinforcement : Sikalastic®-680 AP is applied in combination with Sika® Reemat Premium. Apply the primer if the substrate very porous.

1. Apply first base coat around 0.7-1.0 kg/m² of Sikalastic®-680 AP
2. Roll in the Sika® Reemat Premium and ensure that there are no bubbles or creases. Overlapping of the reinforcement minimum 5 cm.
3. Apply additional base coat of Sikalastic®-680 AP around 0.3-0.5 kg/m² per coat right into the wet Sika® Reemat Premium to achieve the required film thickness. The entire application shall happen while Sikalastic®-680 AP is still liquid, wet in wet.
4. Repeat step 1-3 until the roof area is waterproofed. After two coats are dry, apply the top coat with one or more additional coat of Sikalastic®-680 AP around 0.6-0.7 kg/m² per coat.
5. Please note, always begin with details prior starting with waterproofing the horizontal surface.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with Sika® Thinner C immediately after use. Hardened and/or cured 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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