

PRODUCT DATA SHEET

Sikalastic®-680 N+

SINGLE COMPONENT HIGHLY ELASTIC POLYURETHANE ONE COAT WATERPROOFING MEMBRANE

DESCRIPTION

Sikalastic®-680 N+ is a solvent-free single component, fast drying, seamless liquid applied polyurethane waterproofing membrane for old and new roofs as an exposed or concealed system.

Sikalastic®-680 N+ is available in various colours and is foot-trafficable, making it ideal for waterproofing of concrete flat roof area.

USES

- As exposed or concealed waterproofing system on roofs, podiums, balconies, bathrooms, pools, tanks and planters
- As waterproofing coat for external wall, basements and foundations
- As water barrier under plasters, screeds or tiles
- Refurbishment of metal roof, old tile surfaces, concrete roofs and concrete gutters without the need to hack
- As exposed waterproofing in submerged areas like ponds and fountains when fully cured

CHARACTERISTICS / ADVANTAGES

- Excellent adhesion on concrete, render and masonry
- One continuous waterproofing system for all exposed and concealed area
- Rapid drying and curing
- High productivity and reducing the risk of membrane being wash out due to suddenly occurrence of rain during application
- High crack bridging ability
- Good resistant to UV, chemical, mould and fungus.
- Solvent-free and low VOC (< 20 g/L)
- Available in various colours
- Sikalastic-680N+ is listed on the Eco-Product Directory as environmentally friendly product choice for green building initiatives. (Application No : PL-00945-2021)

PRODUCT INFORMATION

Product Declaration	Elongation at break > 400%	(ASTM D412-16)
	Recovery for 350% Elongation : 295 %	(ASTM D412-16))
Chemical Base	Polyurethane	
Packaging	25 kg per pail	
Shelf Life	12 months from date of production	
Storage Conditions	Stored properly in undamaged and unopened original sealed packaging in cool and dry conditions. Protect from direct sunlight and frost.	
Colour	Grey and Black (other colours on request)	
Density	Approx. 1.3 kg/litre	

TECHNICAL INFORMATION

Shore A Hardness	> 60	(ASTM D2240-15)
Tensile Strength	> 3.3 MPa	(ASTM D412-16)
Crack Bridging Ability	> 3 mm Passed *after 10 cycles of weathering closing to a width of 1 mm	(ASTM C1305M) (ASTM C836-18)
Tensile Adhesion Strength	> 1.5 MPa	(ASTM D4541-17)
Chemical Resistance	Good resistant to <ul style="list-style-type: none">▪ Aqueous starch▪ Bleach▪ Ethanol 75 %▪ Sodium Hydroxide 24 %	

SYSTEM INFORMATION

System Structure

ECONOMICAL COATINGS SYSTEM

e.g. Waterproofing coat to the substrate behind cladding: ~ 0.65 kg/m²/coat (1-2 coats)

STANDARD COATINGS SYSTEM

~ 1.8 kg/m² in one or more coats (DFT@ ~ 1.5 mm)

REINFORCED COATING SYSTEM (SIKA® GLASS FABRIC 55G)

Coating System	Product	System
Primer Coat*	Sikalastic®-500 Acrylic Primer HK/ Sika-floor®156	~ 0.1-0.2 kg/m ²
Base Coat	Sikalastic®-680 N+	~ 1.5 kg/m ²
Reinforcement	Sikalastic® Fleece 80/ Sika® Glass Fabric 55G	
Top Coat	Sikalastic®-680 N+	~ 1.0 kg/m ²

(Total DFT of coating system @ ~ 2.0 mm)

*For exposed system or on very absorbent surfaces only

*For roof refurbishment direct apply Sikalastic®-680 N+ on top of existing tiles, use Sikafloor®156 as primer.

- Alternative Sika reinforcement options can be used.
- These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level and wastage etc.

APPLICATION INFORMATION

Ambient Air Temperature	5 °C to 40 °C
Substrate Moisture Content	≤ 6 % parts by weight. The substrate must be visibly dry with no standing moisture.
Tack Free Time	Approx. 1 hour (@ 25 °C & RH 75 % for foot traffic)
Drying Time	1–4 hours depend on the coating thickness and temperature of substrate

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 DOCUMENTS

- Do not apply at ambient and substrate temperatures less than 5 °C
- 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 (@25 °C & RH 75 %) 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 N+
- For metal, bitumen and asphalt surface, a barrier primer should be applied. Please contact Sika® Technical Services for more details

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 Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

VOC Data

VOC content (ready to use) not exceeding 50g/litre [Type of regulated paint under the Air Pollution Control (volatile organic compounds) Regulation of Hong Kong: (Roof coating (exposed)]

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 sharp protrusions, loose materials, de-bonded coatings, curing membranes, release agents, wax residues, laitance, algae and moss, oils, dust, etc. 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.

APPLICATION

Priming

On very absorbent surfaces, a primer coat (Sikalastic®-500 Acrylic Primer HK) should be applied on the concrete surface prior to the application of waterproofing membrane. Care should be taken to ensure the required membrane final dry film thickness is achieved.

Application Method / Tool

Sikalastic®-680 N+ can be applied by brush, roller, trowel, squeegee or airless spray 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 max. period of 24 hours. The finished membrane should be protected from damage by other trades.

The reinforcement, Sika® Glass Fabric 55G or Sikalastic® Fleece-80 should be pressed into the 1st coat of Sikalastic®-680 N+ whilst it is still wet. Depending on the ambient temperature within an hour, the 1st coat will be foot trafficable. Then apply another 1 or 2 coats of Sikalastic®-680 N+ to completely cover the reinforcement.

"Check the weather condition of the following 3 days from the day planned to apply the product. If raining may happen then do not start the work. Avoid the fresh apply Sikalastic-680 N+ contact with water within the 3days curing period. Cold temperature may need longer curing time."

CLEANING OF TOOLS

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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