

PRODUCT DATA SHEET

Sika® WP Shield-103 P

ATACTIC POLYPROPYLENE(APP) MODIFIED BITUMINOUS SHEET MEMBRANE

DESCRIPTION

This type of membrane is manufactured by modifying premium grade asphalts with atactic polypropylene and specially reinforced with non-woven polyester. This type of membrane shows excellent strength, elasticity and durability.

USES

It is used as waterproofing membrane for protection of various substrates in wide range of applications.

- Medium to large roof slabs (domestic, commercial and industrial)
- Underground car parks etc.
- Podiums
- Bridges & Underpass

CHARACTERISTICS / ADVANTAGES

- Low Cold Flex Temperature
- Durability
- In House Production, high level of availability and short lead times

PRODUCT INFORMATION

Chemical Base	APP modified bituminous membrane		
Packaging	Roll : 10 X 1m		
Appearance / Colour	Black membrane, Upper finish: PE Film, Underside finish: PE Film		
Shelf Life	12 months if stored as per recommendations		
Storage Conditions	Rolls must be stored in their original package, in vertical position and under cool and dry conditions. They must be protected from direct sunlight, rain, snow and ice, etc.		
Length	10 m		
Width	1 m		
Thickness	Thickness	Tolerance	(EN 1849-1)
	3.0 mm	-0.2 mm to 0.3 mm	

TECHNICAL INFORMATION

Tensile Strength	650 ± 100 N/5cm	Longitudinal	(EN 12311-1)
	450 ± 100 N/5cm	Transverse	
Elongation	40 ± 10 %	Longitudinal	(EN 12311-1)
	50 ± 10 %	Transverse	
Tear Strength	350 ± 100 N	Longitudinal	(ASTM D5147)
	300 ± 100 N	Transverse	
Softening Point	> 150 °C		(ASTM D36)
Flexibility at low Temperature	Cold Flexibility at -2°C	Satisfactory, No cracking was observed	(EN 1109)
Flow Resistance	0 @ 120 °C after 2 hrs		(EN 1110)
Water Tightness	≥ 10 kPa		(EN 1928-B)
Water Absorption	0.14%		

APPLICATION INFORMATION

Ambient Air Temperature	+ 10 °C min / + 50 °C max
Substrate Temperature	+ 10 °C min / + 60 °C max
Substrate Moisture Content	< 6%

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

New concrete should be cured for at least 28 days and should have a pull off strength ≥ 1.5 N/mm². Cementitious or Mineral based substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and to achieve an open textured surface.

Loose friable material and weak concrete must be completely removed and surface defects such as blowholes and voids must be fully exposed.

The concrete must be carefully assessed for moisture content, air entrapment, and surface finish prior to any primer application

APPLICATION METHOD / TOOLS

- Apply a bituminous primer to the concrete substrate by a brush, roller or a spray machine.
- After the primer applied surface gets dried align the membrane on the substrate by unrolling the membrane.
- Post its alignment re-roll the membrane half way from both sides.
- Use gas burner to heat the substrate and thermo-fusible film on the underside on lower face of the membrane. Side bearing Sika logo should be on the top. When the thermo-fusible film and the layer of bitumen melts after torching the membrane is ready to stick.
- Roll and press firmly against the substrate to bond.

The bitumen should ooze out from the edges which will make the edges watertight. After the first roll is torched align the second roll next to the first and repeat the same procedure as above, also the overlap must be minimum 80mm for the side and 150 mm at the ends.

- The membranes should be laid in a staggered manner so that the seams are not in a line.
- All the details at edges, parapet walls, pipe penetrations etc should also be sealed with extra care to ensure full bondage. The edges should be sealed well into the grooves.
- Detailings must be treated with utmost care such as Pipe Penetrations, Lightning Conductors Clips, Pedestals etc with proper overlaps. Sika® Technical Services team to be consulted in case of any query.

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.

LOCAL RESTRICTIONS

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

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.

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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