

# PRODUCT DATA SHEET

## Sika® WP Shield-104 PM

### APP MODIFIED BITUMINOUS MEMBRANE –MINERAL FINISH

#### DESCRIPTION

Sika® WP Shield-104 PM 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 an excellent UV stable membrane hence can be used to waterproof:

- Medium to Large Roof Concrete Exposed Roofs

#### CHARACTERISTICS / ADVANTAGES

#### APPROVALS / STANDARDS

Conforms to : EN 12311-1, ASTM D5147, ASTM D36, EN 1928-B, EN 1849-1

#### PRODUCT INFORMATION

<b>Packaging</b>	Roll : 10 X 1 m	
<b>Appearance / Colour</b>	Black membrane, Upper finish: Mineral Granules, Underside finish: PE Film	
<b>Shelf Life</b>	12 months from the date of manufacturing if stored as per recommendations.	
<b>Storage Conditions</b>	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.	
<b>Length</b>	10 m	
<b>Width</b>	1 m	
<b>Effective Thickness</b>	4(-0.2)/(+0.3)	EN 1849

#### TECHNICAL INFORMATION

<b>Tensile Strength</b>	600 ± 150 N/5cm, L 400 ± 150 N/5cm, T	EN 12311-1
<b>Elongation</b>	40 ± 10 %,L 40 ± 10 %,T	EN 12311-1

<b>Tear Strength</b>	300 ± 100 N, L 200 ± 100 N, T	ASTM D5147
<b>Softening Point</b>	> 145 °C	ASTM D36
<b>Flexibility at low Temperature</b>	-2 °C (Cold Flexibility)	EN 1109
<b>Flow Resistance</b>	0 @ 120 °C 2 hrs	EN 1110
<b>Water Tightness</b>	≥ 10 kPa	EN 1928-B

## APPLICATION INFORMATION

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

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY

Concrete, mortar surfaces must be clean, free from grease, oil, and loosely adhering particles. Steel and iron surfaces must be free from scale, rust, grease and oil.

### SUBSTRATE PREPARATION

New concrete should be cured for at least 28 days and should have a pull off strength  $\geq 1.5$  N/mm<sup>2</sup>. Cementitious or Mineral based substrates must be prepared mechanically using abrasive blast cleaning or scari-fying 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 thermofusible film on the underside on lower face of the membrane. 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 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 en-

surefull bondage. The edges should be sealed well into the grooves.

- Detailings must be treated with utmost care such as Pipe Penetrations, Lightening 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 Material Safety Data Sheet 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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