

PRODUCT DATA SHEET

SikaShield® E57 PE EG 4 mm

Bitumenous Waterproofing Membrane Based on SBS Modified with Polyester Reinforcement

DESCRIPTION

Bituminous Elastomeric Waterproofing Membrane made of special grade of bitumen modified with SBS polymers reinforced with non-woven polyester which provide high mechanical properties and high dimensional stability .

USES

- Waterproofing for wet areas, mechanical rooms and terraces.
- Waterproofing of underground structures, retaining walls and under raft foundations.
- Applications subject to high mechanical stress.
- Roofing and re-roofing works for sloped and flat protected roofs.
- Roof garden with final waterproofing layer in contact with soil.

FEATURES

- Reinforcement provides the membrane with dimensional stability and mechanical properties.
- Compatible with all types of bituminous waterproofing systems.
- Flexible at low temperature up to -15C.
- Environmentally friendly.
- Resistant to weathering
- High resistance to water vapour
- Easy to install using the torch-on method
- Good resistance to mechanical impact
- Enhanced thermal resistance under a wide range of temprature fluctuation.

PRODUCT INFORMATION

Packaging	Roll size : 1.0 m width x 10.00 m length	
Shelf life	24 months from the production date.	
Storage conditions	Rolls should be stored in an upright position in a flat properly ventilated area and protected against direct sunlight, rainwater, snow, and ice, etc.	
Appearance and colour	Rolled sheet membrane, reinforced. Surface : smooth. Colour : black. Upper surface: covered with polyethelene film. Lower surface: covered with polyethylene film.	
Length	10.00 m ± 1%	(EN 1848 - 1)
Width	1.00 m ± 1%	(EN 1848 - 1)
Thickness	4mm (± 5%)	(EN 1849 - 1)
Resistance to static puncture	20 Kg	(EN 12730:2001)

Resistance to dynamic puncture	1750 mm	(EN 12961)
Tensile strength	Longitudinal	800 N/ 5cm - 20 %
	Transverse	550 N/ 5cm - 20 %
Elongation	Longitudinal	40 % - 20 %
	Transverse	45 % - 20 %
Tear strength	Longitudinal	180 N - 30%
	Transverse	220 N - 30%
Resistance to tear	Longitudinal	400 N - 30 %
	Transverse	300 N - 30 %
Flexibility at low temperature	-15° C	(EN 1109)
Flow resistance	100°C	(EN 1110)
Water absorption	≤ 1%	(ASTM D-5147)
Watertightness	≥60 kPa	(EN 1928-1)
Permeability to water vapour	80'000 μ	(EN 1931)

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 INFORMATION

Method Statement Application Guide / Manual
To maintain the function of the waterproofing during its lifespan, it is advisable to arrange periodically for inspection of any exposed membrane and detailing. Check the functionality of the auxiliary works, flashings, drainage outlets, overflow pipes etc. including removing leaves, moss and other vegetation.

IMPORTANT CONSIDERATIONS

- Do not apply to wet, damp or unclean surfaces.
- Do not over-torch the membrane otherwise the polyester reinforcement (which melts at +260 °C) will be damaged.
- If membrane is insufficiently heated, this can cause reduced adhesion to the substrate, between layers or on the overlaps. If this occurs, un-bonded areas must be lifted and re-torched.
- Avoid damage to previously installed membranes during the torch-on of further layers of sheet membranes.
- Use suitable footwear to avoid puncturing the membrane.
- Watertightness testing of podiums, wet areas and roof structures is recommended after completion of the membrane installation works according to the specified project requirements.
- Flood testing maximum 48 hours at 50 mm depth. See ASTM D5957 for more information.

ECOLOGY, HEALTH AND SAFETY

SUBSTRATE QUALITY

The supporting structure must be of sufficient structural strength to apply all new and existing layers of the waterproofing build-up. When used as a roofing membrane, the complete roof system must be designed and secured against wind uplift loadings. The substrate must be uniform, firm, smooth and free of any sharp protrusion or burrs, clean, dry, free of grease, oil, dust and loosely adhering particles.

APPLICATION METHOD / TOOLS

Installation procedure

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

Priming

Apply the appropriate primer from the Sika® Igoflex® or range, at the correct consumption to the prepared dry surface and allow to dry before next application stage. Refer to the individual Product Data Sheets.

Alignment

Unroll, align and re-roll correctly before torching.

Overlaps

Side: 100 mm. End: 150 mm.

Torching

Use a gas burner to heat the substrate and the backing film on the underside of membrane. When the backing film starts to melt, the membrane is ready to stick. Roll the membrane forward and press firmly against the substrate to bond. Ensure a bead of melted bitumen is visible along the full length of the overlap sides and ends when laying. Embossed membrane versions require less torching.

Detailing

All details such as internal and external corners, upstands, vent pipes, drains, support metalwork. etc. must be cut and sealed effectively. Detailing must fol-

low the recommended guidelines and good practice for torch-applied membranes.

Protection

The membrane must be protected from damage during and after ongoing site activities, for example with Sikashield® Protection Sheet

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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