

PRODUCT DATA SHEET

SikaShield® E35 PE SA 4 mm

(formerly SikaBit® T-5180 PG SA)

Reinforced elastomeric bituminous waterproofing membrane torch applied

DESCRIPTION

SikaShield® E35 PE SA 4 mm is a high performance elastomeric torch-on sheet waterproofing membrane. It is based on SBS modified bitumen, reinforced with a 180 g/m² polyester non-woven fabric, faced with a polyethylene film on both sides. Suitable for use in tropical and hot climatic conditions.

USES

SikaShield® E35 PE SA 4 mm may only be used by experienced professionals. It is used as a waterproofing membrane for protection of various substrates in a wide range of application.

- Waterproofing and damp-proofing of basements against permanent water submersion and damp soils, including pile capping and foundations
- Waterproofing of retaining walls
- Waterproofing on flat roofs under protective layers or ballast
- Waterproofing on balconies, terraces and wetrooms under screed / tiles

FEATURES

- Resistant to ageing
- Good tensile strength and elongation
- High resistance to water vapour
- Good dimensional stability
- Flexible at low temperatures
- Easy to install using the torch-on method
- Good resistance to mechanical impact

PRODUCT INFORMATION

Composition	SBS Modified Bitumen
Reinforcing material	Polyester, 180 g/m ² (ASTM D5147)
Packaging	Roll size: 1 m (roll width) x 10 m (roll length)
Shelf life	12 months from date of production if stored properly in original unopened packaging.
Storage conditions	Rolls must be stored in their original package, in vertical position and under cool and dry conditions between temperatures of +5°C and +35°C. They must be protected from direct sunlight, rain, snow and ice.

Appearance and colour	Rolled sheet membrane, reinforced with polyester non-woven fabric with Polyethylene film on both sides for ease of installation Colour: Black	
Length	10.0 m (± 1 %)	(ASTM D5147)
Width	1.0 m (± 1 %)	(ASTM D5147)
Effective thickness	4 mm (± 0.2 mm)	(ASTM D5147)

TECHNICAL INFORMATION

Resistance to static puncture	800 - 900 N		(ASTM E154)
Resistance to dynamic puncture	L4 / I4		(UEAtc.5.1.9 / UEAtc.4.4.1)
Tensile strength	Longitudinal	700-800 N/50 mm	(ASTM D5147)
	Transversal	500-600 N/50 mm	
Elongation	Longitudinal	45-50 %	(ASTM D5147)
	Transversal	50-55 %	
Tear strength	Longitudinal	400-500 N	(ASTM D5147)
	Transversal	300-400 N	
Joint shear resistance	Longitudinal	700-800 N	(ASTM D5147)
	Transversal	500-600 N	
Flexibility at low temperature	~-5°C		(ASTM D5147)
Softening point	~150°C		(ASTM D36)
Water absorption	0.30 % (at 25°C, 24 h)		(ASTM D5147)
Watertightness	Impermeable at 4 bar (40 m)		(ASTM D5385)
Water-vapour transmission rate	~0.20 g/m ² /24 hours		(ASTM E96)

APPLICATION INFORMATION

Ambient air temperature	+5°C min. / +50°C max.
Substrate temperature	+5°C min. / +65°C max.

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

FURTHER DOCUMENTATION

- 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

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

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.

SUBSTRATE PREPARATION

Use the appropriate preparation equipment to achieve the required substrate quality.

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 SikaBit® 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.

Detailing

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

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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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ISO 9001, 14001, 45001 – SGS
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 ISO 9001, 14001 – SGS
 - Sika Saudi Arabia Limited
 ISO 9001, 14001 – TÜV
 - Sika MB Construction Chemicals LLC
 - Sika Construction Chemicals for Manufacturing LLC
 - Master Builders Solutions LLC

All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and ISO 45001.



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