

PRODUCT DATA SHEET

SikaShield® E80 HDPE SA 1,5 mm

Self-adhesive bituminous membrane for post-applied below ground waterproofing

PRODUCT DESCRIPTION

SikaShield® E80 HDPE SA 1,5 mm is a bituminous, self-adhesive, fully bonded, post-applied, waterproofing sheet membrane with a thickness of 1.5 mm. It consists of a cross-laminated HDPE film that is pre-coated with an SBS modified bitumen compound. The underside has a removable liner over the adhesive compound for easy application.

USES

SikaShield® E80 HDPE SA 1,5 mm is used as a waterproofing membrane for:

- Basements and other below-ground structures
- Horizontal reinforced concrete slabs, decks and podiums
- Vertical reinforced concrete walls
- Single and strip foundations
- Extensions and reconstruction works

CHARACTERISTICS / ADVANTAGES

- Flame-free application
- Fully bonded
- Good resistance to all natural aggressive substances in groundwater and soil
- Watertight against lateral water migration
- Conditionally UV stable

APPROVALS / STANDARDS

- CE marking and declaration of performance based on EN 13969:2004/A1:2006 Flexible sheets for waterproofing — Bitumen damp proof sheets including bitumen basement tanking sheets — Definitions and characteristics
- CE marking and declaration of performance based on EN 14967:2006 Flexible sheets for waterproofing — Bitumen damp proof courses — Definitions and characteristics
- Radon Test Report ISO/TS 11665-13, Dr. Joachim Kemski, No. 2022012801e

PRODUCT INFORMATION

Chemical Base	Composition	SBS modified bitumen	
	Reinforcing material	none	
Packaging	Roll width	1.0 m	(EN 1848-1)
	Roll length	20.0 m ± 0.2 m	
	Refer to the current price list for available packaging variations.		
Shelf Life	12 months from date of production		

Storage Conditions

The Product must be stored in original unopened and undamaged packaging in dry conditions and temperatures between +5 °C and +35 °C. Protect the Product from direct weather exposure and sunlight. Store in a vertical position. Pallets may be stacked on top of the rolls if all following conditions are met:

- The rolls have a wooden board on top, separating them from the pallet above.
- The weight of the pallet above is equal to or less than the weight of the rolls.

Always refer to the packaging.

Appearance / Colour	Top surface	HDPE (High Density Polyethylene)
	Bottom Surface	Release paper
	Top layer colour	Black
Thickness	Thickness	1.5 mm ± 0.08 mm (EN 1849-1)

TECHNICAL INFORMATION

Resistance to Impact	≥ 200 mm	(EN 12691)
Maximum tensile force	Longitudinal (MD)	≥ 200 N/50 mm (EN 12311-1)
	Transversal (CMD)	≥ 200 N/50 mm
Elongation at maximum tensile force	Longitudinal (MD)	≥ 150 % (EN 12311-1)
	Transversal (CMD)	≥ 150 %
Resistance to Tearing (nail shank)	Longitudinal (MD)	≥ 100 N (EN 12310-1)
	Transversal (CMD)	≥ 100 N
Joint Shear Resistance	Longitudinal (MD)	≥ 200 N/50 mm (EN 12317-1)
	Transversal (CMD)	≥ 200 N/50 mm
Service Temperature	Minimum	-30 °C
	Maximum	70 °C
Flexibility at low temperature	≤ -30 °C	(EN 1109)
Flow resistance	≥ +70 °C	(EN 1110)
Water Tightness	Method B, 24 hours at 60 kPa	Pass (EN 1928)
Resistance to lateral water migration	Pass, up to 0,5 bar (on primed concrete)	(ASTM D5385 / D5385M)
Permeability to Water Vapour	$S_d = 100-200$ m	(EN 1931)
Reaction to Fire	Class E	(EN 13501-1)

APPLICATION INFORMATION

Ambient Air Temperature	Maximum	+40 °C
	Minimum	+5 °C
Relative Air Humidity	Maximum	80 %
Substrate Temperature	Maximum	+40 °C
	Minimum	+5 °C

VALUE BASE

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 DOCUMENTS

- Method Statement — Bituminous membranes for below ground
- Method Statement — Self-adhesive bituminous membranes for below ground

ECOLOGY, HEALTH AND SAFETY

REGULATION (EC) NO 1907/2006 - REACH: This product is an article as defined in article 3 of regulation (EC) No 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. A safety data sheet following article 31 of the same regulation is not needed to bring the product to the market, to transport or to use it. For safe use follow the instructions given in this product data sheet. Based on our current knowledge, this product does not contain SVHC (substances of very high concern) as listed in Annex XIV of the REACH regulation or on the candidate list published by the European Chemicals Agency in concentrations above 0.1 % (w/w).

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

SYSTEM DESIGN

When designing the waterproofing system, make sure that the supporting structure has sufficient structural strength to support all new and existing layers of the system build-up.

SUBSTRATE CONDITION

The substrate surface must be uniform, firm, smooth and free of any sharp protrusion or burrs, clean, dry, free of grease, laitance, oil, dust and loosely adhering particles.

SUBSTRATE PREPARATION

Mineral substrates must be pre-primed with a suitable Sika® primer from the Sika® Igolflex®, SikaShield® or SikaProof® ranges. The Sika® primer selection is made according to the application type and temperature conditions before laying the waterproofing membrane.

1. Repair and fill blow holes and voids using appropriate products from the SikaTop®, Sika MonoTop®, Sikafloor®, Sikadur® and Sikagard® range of materials.
2. Apply the appropriate Sika® primer at the required consumption onto the prepared dry surface. Refer to the individual Product Data Sheet for further information.
3. **IMPORTANT** The primed surface must have no moisture or other contaminants that could influence the membrane adhesion. Allow the primer to dry before membrane installation.

For information on substrate preparation and application, contact Sika Technical Services.

APPLICATION

IMPORTANT

Unrolling at low temperatures

At low temperatures, the membrane becomes less flexible.

1. Be careful when unrolling to avoid damaging the membrane.

IMPORTANT

Damage through footwear

Footwear with spikes or sharp protrusions may puncture the membrane.

1. Use footwear with a flat profile when walking over the membrane.

IMPORTANT

Application at less than +5 °C

When applying the membranes at temperatures lower than +5 °C, use heating equipment to ensure that the substrate temperature is within the given temperature range.

IMPORTANT

Application in humid or wet conditions

When applying the membranes in wet or humid conditions, use heating equipment to ensure that the substrate is dry before application.

Seasonal symbol

Note: If a seasonal symbol is printed on the roll's label, it is advisable to use the membrane during the indicated season.

Tackiness at high temperatures

Note: When laying the membrane at high temperatures, the integral adhesive will become 'tacky' and may restrict laying operations.

ALIGNMENT

IMPORTANT

Avoid coinciding joints

To avoid coinciding joints, lay the membranes parallel to one another. When applying on another bituminous membrane, make sure to straddle the overlaps of the previous layer.

1. Unroll the membrane.
2. Align the membrane.
3. Re-roll the membrane before application.

MEMBRANE OVERLAPS

1. Overlap the membranes by a minimum of 100 mm on the sides and 150 mm on each end or as specified by the supplier.
2. At the end overlap, cut off a corner measuring 100 mm per side at an angle of 45°.

SELF-ADHESIVE BONDING

1. At one end of the sheet, peel away part of the release liner from the underside and bond this end to the substrate.
2. Continue to peel away the release liner sideways from the rest of the sheet membrane and bond it to the substrate.
3. Roll the entire surface area of the applied membrane with a heavy roller to ensure any air bubbles are removed.

Suitable substrates

- Concrete
- Wood
- Metal
- Bituminous membranes with a smooth surface
- Tiles
- Brick masonry
- Cementitious screeds
- Plasterboards
- Plasters
- Foamed concrete blocks, if properly primed. Contact Sika® Technical Services for more information.

DETAILING

1. Use a sharp knife to cut in all details such as internal and external corners, upstands, vent pipes, drains, and support metalwork.

Refer to the relevant method statement for further information on detailing.

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 the 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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Product Data Sheet

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