

## PRODUCT DATA SHEET

# SikaShield® E80 HDPE SA 1,5 mm

(formerly MSeal 726, SikaShield® SK2000)

### SELF-ADHESIVE BITUMINOUS MEMBRANE FOR POST-APPLIED BELOW GROUND WATERPROOFING

#### 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

- Certified Green Label by Singapore Green Building Council
- BS 8102:2022 - Code of Practice for the 'Protection of Below Ground Structures against Water Ingress'
- SS 637:2018 - Code of Practice for waterproofing of reinforced concrete buildings
- EN 12311-1:2000 - Flexible sheets for waterproofing

#### PRODUCT INFORMATION

<b>Chemical Base</b>	Composition	SBS modified bitumen	
	Reinforcing material	None	
<b>Packaging</b>	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.		
<b>Appearance / Colour</b>	Top surface	HDPE (High Density Polyethylene)	
	Bottom Surface	Release paper	
	Top layer colour	Black	
<b>Shelf Life</b>	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 packaging.

Thickness	Thickness	1.5 mm ± 0.08 mm	(EN 1849-1)
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## TECHNICAL INFORMATION

Resistance to Static Load	≥ 7.38% deformation	(BS EN 13967:2012+A1:2017)
Resistance to Static Puncture	≥ 203 N	(ASTM E154/E154M-08a (2019)e1)
Tensile Strength	Longitudinal	≥ 3.71 MPa (SS 374:1994 (2017))
	Transverse	≥ 4.17 MPa
Elongation at Break	Longitudinal	≥ 480% (SS 374:1994 (2017))
	Transverse	≥ 448%
Tear Strength	Longitudinal	≥ 27.3 kN/m (ASTM D624-00 (2020))
	Transverse	≥ 30 kN/m
Crack Bridging Ability	Subject 100 cycles of stretching and closing between two blocks at a temperature of -32°C	No crack was observed (ASTM C1305/C1305M-16)
Reaction to Fire	Class E	(EN 13501-1)
Permeability to Water Vapour	$S_d = 100-200$ m	(EN 1931)
Adhesion in Peel	Concrete ≥ 1,806 N/m	(ASTM D903-98 (2017))
Resistance to lateral water migration	Pass, up to 0,5 bar (on primed concrete)	(ASTM D5385 / D5385M)
Maximum Water Pressure	Hydrostatic Pressure Resistance No water leakage was observed	(ASTM D5385/D5385M-20)

## APPLICATION INFORMATION

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

## 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 DOCUMENTS

- The detailing at external and internal corners and penetrations of pipes, cables, ducts, etc. must be carefully carried out before commencing application of horizontal sections of the membrane. While covering

vertical faces, always start from the top. Chase the membrane into a groove or temporarily batten it to prevent it from falling while laying. The battens can be removed after the whole face has been covered.

- Provide suitably designed flashings at the grooves where the membrane is chased in, over the membrane edge on the vertical surface and above every projection from the vertical surface such as pipelines, ventilators, air conditioners, etc.
- At the corners, between the vertical and horizontal, maintain an overlap of at least 100mm. It is recommended that the horizontal area is laid first, followed by the vertical, so that the vertical membrane laps over the horizontal one.
- If the membrane has ballooned at a few spots after laying, due to entrapped air or water, puncture the bubbles with a sharp needle. The pinholes will heal by themselves during the smoothing process.

#### Protection

Temporarily protect the membrane from mechanical damage during application using polystyrene boards or similar approved methods. After completion, protect the membrane by a screed, paving, soil infill or by lining with tiles to prevent mechanical damage in service.

## ECOLOGY, HEALTH AND SAFETY

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

The application temperature should be between 4°C to 45°C. Application procedures may vary slightly depending upon site conditions. The general recommended guidelines for the application of the self-adhesive waterproofing system is as follow:

#### SUBSTRATE PREPARATION

The surfaces shall be cleaned thoroughly of all contaminants like dust, traces of curing compound, oil and grease. All surface imperfections, protrusions, structurally unsound and friable concrete must be removed and repaired. Fill surface irregularities such as blowholes, honeycombs etc., with Sika repair mortar to achieve a smooth and level surface. Repair cracks either by resin injection or by caulking depending on the nature of cracks. Where needed, provide expansion joints and seal them with Sika range of construction sealants (see separate data sheets). Consult Sika representatives for advice on repair methods.

#### APPLICATION

##### Priming

Use Sika Primer or a similar bituminous primer. Apply the primer by brush or roller over the prepared substrate at a rate of 6 to 8 m<sup>2</sup>/ L. Lay the membrane after the primer reaches touch dry state. Prime only an area that can be covered within the same working day.

##### Alignment

Start the installation of all membrane plies from the low point or drains, so that the flow of water is over or parallel the piles, but never against the laps. All overlaps at the membrane seams shall be installed so as to have "up" slope laps over "down" slope laps. Begin membrane application by unrolling the roll of SikaShield® Exx HDPE 1,5 mm membrane and aligning the side laps.

##### Placing

It is important to lay the membrane without creases. Peel back the release paper to a length of about 30cm and stick the membrane onto the prepared substrate, starting preferably from one end of the areas. Unwind the roll in a straight line, without creasing by pulling the release paper carefully. Using a rubber roller, simultaneously smooth the membrane from the center outwards to the edges for optimum adhesion and to expel any entrapped air. After one roll has been installed and smoothed, lay the next roll with at least 100mm overlap at the ends and 50mm along the edges. Ensure total bonding at the overlap by using the roller.

## 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.

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### Product Data Sheet

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