

## PRODUCT DATA SHEET

# SikaShield® E55 PE SA 1,5 mm

PEEL AND STICK, SELF-ADHESIVE, BITUMINOUS SHEET WATERPROOFING MEMBRANE FOR BELOW GROUND APPLICATIONS

### DESCRIPTION

SikaShield® E55 PE SA 1,5 mm is a self-adhesive bituminous sheet waterproofing membrane. It's based on a SBS modified bitumen compound laminated on a HDPE film and is reinforced with non-woven Polyester which provides highly mechanical properties and dimensional stability. Suitable for use in hot and tropical climatic conditions.

### USES

SikaShield® E55 PE SA 1,5 mm is a cold and postapplied self-adhesive sheet waterproofing membrane. The system is applied on existing below ground concrete structures to provide damp-proofing and waterproofing:

- On horizontal slabs and protrusions
- On single and strip foundations or slabs
- On the outside of external walls

### FEATURES

- Cold-applied and self-adhesive (no heating or open flames required)
- Fully bonded sheets
- Resistant to aggressive mediums in natural ground water and soil
- Controlled layer thickness
- Easy, fast and secure application, without special equipment

### PRODUCT INFORMATION

<b>Packaging</b>	1.00 m x (10 m, 15 m, 20 m) single roll	
	Roll Width	1.0 m (± 1 %) (ASTM D5147)
	Roll length	10 m, 15 m, 20 m (± 1 %)
<b>Appearance and colour</b>	Supplied as sheets in rolls, on one side a black HDPE carrier film and on the other the black bitumen compound adhesive protected with a peel-release film	
<b>Shelf life</b>	Rolls have a shelf-life of 12 months from date of production.	
<b>Storage conditions</b>	Product must be stored in original unopened and undamaged sealed packaging in dry conditions and temperatures between +5 °C and +35 °C. Store in a vertical position. Do not stack pallets of the rolls on top of each other, or under pallets of any other materials during transport or storage. Always refer to packaging	
<b>Effective thickness</b>	1.50 mm (± 5 %)	(ASTM D5147)

## TECHNICAL INFORMATION

Resistance to static puncture	650–750 N	(ASTM E154)	
Resistance to dynamic puncture	L3 / I3	(UEAtc.5.1.9/UEAtc.4.41)	
Tensile strength	Longitudinal	650–750 N/50 mm	(ASTM D5147)
	Transversal	450–550 N/50 mm	
Elongation	Longitudinal	50–60 %	(ASTM D5147)
	Transversal	50–60 %	
Tear strength	Longitudinal	400–500 N	(ASTM D5147)
	Transversal	300–400 N	
Foldability at low temperature	≤ -20 °C	(ASTM D5147)	
Water-vapour transmission rate	~0.20 g/m <sup>2</sup> /24 hours	(ASTM E96)	
Water absorption	~0.1 % (at 25 °C, 24 h)	(ASTM D5147)	

## APPLICATION INFORMATION

Ambient air temperature	+5 °C min. / +50 °C max.		
Relative air humidity	< 80 %		
Dew point	The substrate temperature must be at least 3 °C above the dew point to reduce the risk of condensation and so limited adhesion		
Substrate temperature	+5 °C min. / +50 °C max.		
Substrate moisture content	Dry, ≤ 4 % moisture content, no rising moisture		
Bond strength	Adhesion to primed concrete	~3.2 N/mm	(ASTM D1000)
	Adhesion to self	~3.1 N/mm	

## 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 for the SikaShield® E55 PE SA 1,5 mm membrane system.

## IMPORTANT CONSIDERATIONS

- The sheets must be protected immediately after completion to prevent mechanical damage. In any case don't let the membrane unprotected for more than 3 days.
- SikaShield® E55 PE SA 1,5 mm sheets are only temporarily and not permanently UV and weather resistant.
- For any connection of SikaShield® E55 PE SA 1,5 mm with other Sika membrane systems please refer to relevant product documentation, check especially regarding their bitumen compatibility or contact Sika's Technical Department for advice.

- In case of submerged structures / projects or exposure to chemicals contact Sika Technical Department prior to application.
- SikaShield® E55 PE SA 1,5 mm is not designed for use on structures under vehicular traffic.
- Low temperatures reduce the adhesion of the materials, while high temperatures soften the materials and make them more adhesive.
- Small wrinkles on the membrane surface don't affect the integrity of the waterproofing system.
- Suspend laying by self-adhesion when the temperature falls below +5 °C and/or facilitate laying with hot air appliances or with a flame at temperatures below +10 °C and/or in particularly humid conditions

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

### SUBSTRATE PREPARATION

Unevenness and surface defects (such as blowholes, voids, honeycombing, cracks, protrusions, etc.) in the surface must be pretreated and filled prior to the application, in order to prevent any subsequent damage to the membrane sheets.

A suitable primer has to be used for an optimal bond between SikaShield® E55 PE SA 1,5 mm membrane sheets and the concrete substrate, for example:

- SikaBit® P-11 SA
- SikaBit® P-12 AE

### APPLICATION METHOD / TOOLS

Installation procedure may vary slightly depending on site conditions. Refer to relevant standards, guidelines and good industry practice.

#### Priming

Apply the appropriate primer SikaBit® P-11 SA or SikaBit® P-12 AE, at the correct consumption to the prepared dry surface by brush, roller or spray and allow to dry before next application stage. Refer to the individual Product Data Sheets.

#### Overlaps

Side: 70 - 100 mm. End: 150 mm.

#### Application

Once the roll is aligned, peel back a portion of the silicone release film and press the membrane onto the substrate. When securely adhered, remove the remaining release film from the roll. Use a suitable roller (eg. steel) to press the self-adhesive membrane onto the substrate including the laps. Use the roller to push out any air bubbles out to the edge of the membrane.

#### Detailing

All details such as internal and external corners, upstands, vent pipes, drains, support metal work etc. must be cut and sealed effectively. Detailing must follow the recommended guidelines and good practice for self-adhered membranes.

#### Protection

The membrane must be protected from damage during any ongoing site activities for example with a suitable SikaShield® PB or geotextile.

## 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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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.



#### Product Data Sheet

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