

# PRODUCT DATA SHEET

## SikaProof® A

### FULLY BONDED FPO SHEET MEMBRANE WATERPROOFING SYSTEM FOR BASEMENTS AND OTHER BELOW GROUND STRUCTURES

#### DESCRIPTION

SikaProof® A is a fully and permanently bonded, self-adhesive, composite sheet membrane waterproofing system. It consists of an embossed polyolefin (FPO) membrane laminated with a sealant grid and a non-woven fleece. SikaProof® A is cold-applied and pre-applied, as it is installed without heat or openflames, and before the steel reinforcement is fixed and the concrete is poured.

#### USES

Damp-proofing, concrete protection and waterproofing for basements and other below ground concrete structures against ground water ingress:

- below ground reinforced concrete slabs
- Below ground walls with both single and double - faced formwork
- extensions and reconstruction works
- prefabricated constructions

#### CHARACTERISTICS / ADVANTAGES

- Cold-applied (no pre-heating or open flames) and pre-applied, before the reinforcement is fixed and the concrete is poured
- Fully and permanently bonded to the concrete structure
- No lateral water underflow or migration between the concrete structure and the membrane system
- High watertightness tested according to many standards
- Easy to install with fully adhered joints (no welding required)
- Weathering resistant with temporary UV-stability

- Resistant to aging
- High flexibility and crack-bridging abilities
- Resistant to aggressive mediums in natural ground water and soil
- Can be combined with other approved Sika waterproofing systems including:
  - Sikaplan® WT membranes, FPO-based sheet water-proofing membranes
  - Sikadur-Combiflex SG system, FPO-based joint sealing system

#### APPROVALS / STANDARDS

- Product Declaration EN 13967 – Flexible sheets for waterproofing. CE Certificate No. 1349-CPD-065, 16.08.2011
- Function test, Wissbau, test report No. 2010-212 (SikaProof A-08), 03.05.2011
- Function test, Wissbau, test report No. 2010-212-6 (Penetrations), ...
- Function test, Wissbau, test report No. 2012-212-7 (Pile head), ...
- ASTM D 5385 mod., Sika Technology AG, Internal Test Lab, test report No. 1112035, 23.11.2011
- Radon permeability, Slovak Medical University, for SikaProof A-12, test report No. E-215/2011, 15.11.2011
- Radon permeability, Slovak Medical University, for SikaProof A-08, test report No. E-214/2011, 07.12.2011

## PRODUCT INFORMATION

<b>Chemical base</b>	Membrane Layer:	Flexible Polyolefin (FPO)		
	Sealant grid:	Polyolefin (PO)		
	Fleece layer:	Polypropylene (PP)		
<b>Packaging</b>	SikaProof® A rolls are wrapped individually in a yellow PE-foil.			
		<b>Roll width</b>	<b>Roll length</b>	
	SikaProof® A-05	1 m and 2 m	30 m	
	SikaProof® A-08	1 m and 2 m	25 m	
	SikaProof® A-12	1 m and 2 m	20 m	
<b>Appearance / Colour</b>	Light yellow sheet membrane, laminated with a fleece layer			
<b>Shelf life</b>	SikaProof® A membrane rolls have a shelf-life of 18 months from date of production if stored properly in unopened, undamaged, original packaging			
<b>Storage conditions</b>	Store in a horizontal position, in dry conditions and at temperatures between +5 °C and +30 °C. They must be protected from direct sunlight, rain, snow and ice, etc. Do not stack pallets of the rolls on top of each other, or under pallets of any other materials during transport or storage.			
<b>Product Declaration</b>	EN 13967, mandatory for European countries			
<b>Visible Defects</b>	Pass			EN 1850-2
<b>Thickness</b>		Total Thickness	Master membrane Thickness	Deviation
	SikaProof® A-05	1.10 mm	0.50 mm	(-5 /+10 %)
	SikaProof® A-08	1.35 mm	0.80 mm	(-5 /+10 %)
	SikaProof® A-12	1.70 mm	1.20 mm	(-5 /+10 %)
<b>Straightness</b>	≤ 50 mm / 10 m			EN 1848-2
<b>Mass per unit area</b>	SikaProof® A-05	0,80 kg/m <sup>2</sup>	(-5 /+10 %)	EN 1849-2
	SikaProof® A-08	1.15 kg/m <sup>2</sup>	(-5 /+10 %)	
	SikaProof® A-12	1.50 kg/m <sup>2</sup>	(-5 /+10 %)	

## TECHNICAL INFORMATION

<b>Resistance to Impact</b>	SikaProof® A-05	≥ 150 mm	EN 12691
	SikaProof® A-08	≥ 250 mm	
	SikaProof® A-12	≥ 350 mm	
<b>Resistance to Static Load</b>	≥ 20 kg		EN 12730 (Method B, 24 h/20 kg)
<b>Tensile Strength (Machine Direction)</b>	SikaProof® A-05	≥ 250 N / 50 mm	EN 12311-1
	SikaProof® A-08	≥ 400 N / 50 mm	
	SikaProof® A-12	≥ 675 N / 50 mm	
<b>Tensile Strength (Cross Direction)</b>	SikaProof® A-05	≥ 250 N / 50 mm	EN 12311-1
	SikaProof® A-08	≥ 375 N / 50 mm	
	SikaProof® A-12	≥ 550 N / 50 mm	
<b>Elongation (Machine Direction)</b>	SikaProof® A-05	≥ 300 %	EN 12311-1
	SikaProof® A-08	≥ 450 %	
	SikaProof® A-12	≥ 475 %	
<b>Elongation (Cross Direction)</b>	SikaProof® A-05	≥ 500 %	EN 12311-1
	SikaProof® A-08	≥ 500 %	
	SikaProof® A-12	≥ 550 %	

<b>Resistance to tear (Nail Shank) (Machine Direction)</b>	SikaProof® A-05	≥ 275 N	EN 12310-1
	SikaProof® A-08	≥ 400 N	
	SikaProof® A-12	≥ 550 N	
<b>Resistance to tear (Nail Shank) (Cross Direction)</b>	SikaProof® A-05	≥ 275 N	EN 12310-1
	SikaProof® A-08	≥ 400 N	
	SikaProof® A-12	≥ 550 N	
<b>Joint Strength</b>	SikaProof® A-05	≥ 175 N / 50 mm	EN 12317-2
	SikaProof® A-08	≥ 250 N / 50 mm	
	SikaProof® A-12	≥ 250 N / 50 mm	
<b>Reaction to Fire</b>	Class E		EN 13501-1:2000
<b>Watertightness to Liquid Water</b>	Pass		EN 1928 B (24 h/60 kPa)
<b>Water Vapour Transmission</b>	SikaProof® A-05	0.75 – 0.95 g/m <sup>2</sup> x 24 h 34'500 – 36'600 μ	EN 1931 (+23°C/75% r.h.)
	SikaProof® A-08	0.75 – 0.95 g/m <sup>2</sup> x 24 h 35'500 – 37'600 μ	
	SikaProof® A-12	0.50 – 0.75 g/m <sup>2</sup> x 24 h 45'100 – 47'800 μ	
<b>Permeability to Radon</b>	SikaProof® A-08	(2.0 +/- 0.3) x 10 <sup>-12</sup> m <sup>2</sup> /s	E-214/2011
	SikaProof® A-12	(5.3 +/- 0.7) x 10 <sup>-12</sup> m <sup>2</sup> /s	E-215/2011
<b>Water Resistance to lateral water underflow of membrane system</b>	SikaProof® A-08	≥ 7.0 bar	ASTM D 5385 mod.
	SikaProof® A-12	≥ 7.0 bar	
<b>Durability of Watertightness Against Chemicals</b>	Pass		EN 1296 (12 weeks) EN 1928 B (24h / 60 kPa)
	Pass		EN 1847 (28 d/+23 °C) EN 1928 B (24h / 60 kPa)
<b>Accelerated Ageing in an Alkaline Environment, Tensile Strength</b>	Pass		EN 1847 (28 d/+23 °C) EN 1928 B (24h / 60 kPa)

## SYSTEM INFORMATION

### System Structure

SikaProof® A-05, membrane in rolls of widths 1.0 and 2.0 m  
SikaProof® A-08, membrane in rolls of widths 1.0 and 2.0 m  
SikaProof® A-12, membrane in rolls of widths 1.0 and 2.0 m  
SikaProof® Tape-150, self-adhesive tape for internal jointing, based on butylrubber, in 150 mm width  
SikaProof® ExTape-150, self-adhesive tape for external jointing, based on butylrubber, in 150 mm width

### Accessories

SikaProof® A-08 / -12 Edge, preformed sheet in L-shape, to form the waterproofing system edges, corners and connections  
SikaProof® Patch-200, external membrane patching tape for sealing any local damage or penetrations, supplied in 200 mm width  
SikaProof® FixTape-50, for fixing and repairing around details and Penetrations  
SikaProof® MetalSheet, to create special details, such as pile heads

## APPLICATION INFORMATION

Recommended System	General Criteria	SikaProof® A-05	SikaProof® A-08	SikaProof® A-12
	Typical use	Damp-proofing/ concrete protection / waterproofing	Waterproofing for civil engineered structures	Waterproofing for civil engineered structures
	Typical application	Slab on ground/ Walls / Precast	Base slabs / Walls/ Precast elements	Base slab/ Walls/ Precast elements
	Max. head of water (pressure)	< 5 m (0.5 bar)	< 10 m (1.0 bar)	< 15 m (1.5 bar)
	Crack-bridging Ability	Not tested	≤ 1 mm	≤ 2 mm

This spreadsheet is not exhaustive. It can be used as general selection guide for specific decision criteria.  
For further more information how to choose the appropriate Sika solution for basement waterproofing contact your local Sika representative.

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<b>Ambient Air Temperature</b>	+5°C min./+35 °C
<b>Substrate Temperature</b>	+5°C min./+35°C

## APPLICATION INSTRUCTIONS

### SUBSTRATE QUALITY

The substrate for the SikaProof® A membrane needs sufficient stability to avoid movement during the construction works.

A smooth, uniform and clean substrate surface is essential to prevent membrane damage. Large gaps and voids (> 12-15 mm) be closed before installation of the SikaProof® A membrane system. The substrate can be damp or slightly wet, but ponding water must be avoided.

Suitable substrates to fix the SikaProof® A membrane system onto are:

- Concrete blinding
- Formwork
- Rigid thermal insulation
- Geotextile
- Plywood sheets / forms
- Compacted soil/fill with geotextile (only for limited requirements)

### APPLICATION METHOD / TOOLS

SikaProof® A is a cold-applied and pre-applied sheet membrane waterproofing system, installed before the reinforcement is fixed and the concrete is poured.

The joints of SikaProof® A membranes are not welded, they are fully adhered by self-adhesive strips prefabricated on the membrane sheet or with detailing tapes.

Installation procedure:

- Ensure the substrate is correctly constructed and prepared, see Section 5.1.
- Install the pre-formed SikaProof® A Edge sheet for the perimeters and terminations / connections.
- Form the corners with the same pre-fabricated Edge sheet and adhere them externally with SikaProof® ExTape-150 and internally with SikaProof® Tape-150.

- Lay the SikaProof® A membranes on the horizontal and vertical surfaces using the 1.0 or 2.0 m width rolls (as appropriate) and adhere the overlap joints with the self-adhesive strips lengthways and for cross joints using the SikaProof® Tape-150 inside and SikaProof® ExTape-150 outside.
- Form standard details, such as pipe penetrations, shaft connections, pits, pile heads, expansion joints and shuttering anchors use the appropriate accessory products
- Finally, check all the overlap joints, connections and details, to ensure they are correctly and fully adhered using the SikaProof® Tape-150 and SikaProof® ExTape-150.
- After the SikaProof® membrane system is applied the reinforcement will be fixed and the concrete will be poured.
- After removing the formwork penetrations, such as shuttering anchors, any membrane damage and any construction joints can be sealed on the external side (on the membrane) with the SikaProof® Patch-200 or by Sikadur®Combiflex SG system.

For further more detailed information about the installation procedure, please refer to the SikaProof® A Method Statement or Application Manual.

### LIMITATIONS

SikaProof® A membranes must only be installed by trained and approved Sika contractors.

SikaProof® A membrane is not UV stabilised and can not be installed on structures permanently exposed to UV light and weathering.

Do not apply SikaProof® A membranes during continuous or prolonged rainfall.

## 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.

## LOCAL RESTRICTIONS

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

## ECOLOGY, HEALTH AND SAFETY

A Safety Data Sheet following EC- Regulation 1907/2006, Article 31 is not needed to bring the product to the market, to transport or to use it. The product does not damage the environment when used as specified.

## 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  
SikaProof® A  
April 2017  
020704210210000002