

SikaProof® A

Fully bonded FPO sheet waterproofing membrane system
for basement and other below ground structures

Product Description

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

Uses

Waterproofing for basements and other below ground concrete structures against groundwater ingress:

- Below ground concrete slabs
- Below ground walls with both single and double -faced formwork
- Extensions and reconstruction works
- For 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 migration is possible between the concrete and the membrane
- Easy to install with fully adhered joints (no welding required)
- Weathering resistance and temporary UV-stability during installation
- High resistance to ageing
- High tensile strength and elongation
- High flexibility, including at low temperatures
- High crack bridging ability
- High resistance to mechanical impact
- Resistant to aggressive mediums in natural ground water and soil
- Bitumen resistant
- Can be combined and securely connected to other Sika waterproofing systems:
 - Sikaplan® WT, FPO-based sheet waterproofing membranes
 - Sikadur-Combiflex SG, FPO-based tape sealing system for joints

Tests

Approval / 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



Product Data

Form

Appearance / Colours	Light yellow sheet membrane, laminated with a fleece layer		
Packaging	SikaProof® A rolls are wrapped individually in a yellow PE-foil.		
	Total Thickness	Roll width	Roll length
SikaProof® A-12	1.60 mm	2 m	20 m

Storage

Storage Conditions / Shelf Life	SikaProof® A rolls expire after 12 months from date of production if stored properly in unopened undamaged original packaging in a horizontal position in dry conditions 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 other materials during transport or storage.
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Technical Data

Chemical Base:	Membrane Layer:	Flexible Polyolefin (FPO)			
	Sealant grid:	Polyolefin (PO)			
	Fleece layer:	Polypropylene (PP)			
Product declaration	EN 13967, mandatory for European countries				
Visible defects	Pass			EN 1850-2	
Straightness	≤ 50 mm / 10 m			EN 1848-2	
		Mass per unit area			
	SikaProof® A-12	1.50 kg/m ²	(-5 / +10%)		
Thickness		Thickness Membrane	Total Thickness	Deviation	EN 1849-2
	SikaProof® A-12	1.20 mm	1.60 mm	(-5 / +10%)	
Watertightness to liquid water	Pass			EN 1928 B (24 h/60 kPa)	
	SikaProof® A-12	≥350 mm			
	SikaProof® A-12	≥ 350 mm			
Durability of watertightness against ageing	Pass			EN 1296 (12 weeks) EN 1928 B (24h / 60 kPa)	
Durability of watertightness against chemicals	Pass			EN 1847 (28 d/+23 °C) EN 1928 B (24h / 60 kPa)	
Accelerated ageing in an alkaline environment, tensile strength	Pass			EN 1847 (28 d/+23 °C) EN 1928 B (24 h/60 kPa)	
Bitumen Compatibility	Pass			EN 1548 (28 d/+70°C) EN 1928 A	

Resistance to Tear (nail shank)	SikaProof® A-12	≥ 600 N	EN 12310-1
Joint strength	SikaProof® A-12	≥ 250 N / 50 mm	EN 12317-2
Tensile strength, (machine direction)	SikaProof® A-12	≥ 500 N / 50 mm	EN 12311-1
Tensile strength, (cross direction)	SikaProof® A-12	≥ 400 N / 50 mm	EN 12311-1
Elongation, (machine direction)	SikaProof® A-12	≥ 450 %	EN 12311-1
Elongation, (cross direction)	SikaProof® A-12	≥ 450%	EN 12311-1
Water Vapour transmission	SikaProof® A-12	0.51 g/m ² x 24 h	EN 1931 (+23°C/75% r.h.)
Resistance to static load	≥ 20 kg		EN 12730 (Method B, 24 h/20 kg)
Reaction to fire	Class E		EN 13501 -1:2000

Additional Data (not CE relevant)

Radon Permeability	SikaProof® A-12	(5.3 +/- 0.7) x 10 ⁻¹² m ² /s	Certificate E-215/2011
Watertightness and no Lateral Water Underflow	SikaProof® A-12	≥7.0 bar	ASTM D 5385 mod.

System Information

System components

- SikaProof® A-12, membrane in roll widths 2.0 m
- SikaProof® Tape-150, self-adhesive, internal jointing tapes based on Butyl-rubber, in 150 mm width
- SikaProof Extape-150, shelf-adhesive, external jointing tapes based on Butyl-rubber, in 150 mm width

Combinable products

- Sikdur-Combiflex® System
- Sika® Waterbar WT AF or WT DF, for construction or expansion joints
- Sika Swell® S-2 and Sika Swell® P Profiles, for additional sealing
- Sika Fuko® Injection hose systems, as additional back-up system
- Sikaplan WT Protection Sheet or W Felt, as protection and drainage layer

Application Details

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 minimises the risk of damage. Large gaps and voids (> 12-15 mm) have to be closed before installation of the SikaProof® A membrane system. The substrate can be damp or slight wet, but ponding water must be avoided.

Suitable substrates are:

- Concrete or blinding concrete
- Formwork
- Rigid thermal insulation
- Wooden frames

**Application
Conditions /
Limitations**

Substrate temperature 0°C min. / + 35°C max.

Ambient air temperature +5°C min / + 35 °C max.

**Ambient maximum
(Temperature of liquids)** +35°C (groundwater)

**Application
Instructions**

Application Method

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

SikaProof® A is easy, fast and secure to install. There is no special or heavy equipment required. Only the following tools are required:
Straight edge, marking pen, membrane cutter and pressure roller

The joints of SikaProof® A membranes are not welded, they are fully adhered by a self-adhesive-strip, or with SikaProof® Tapes-150 or ExTape-150.

Installation method:

0. Ensure the substrate is correctly prepared.
 1. Install the pre-formed edges for the perimeter using the ancillary product SikaProof® A-12 Edge
 2. Form the waterproofing system corners with the same prefabricated Edge membranes and bond them with the SikaProof® Tape-150 and SikaProof® ExTape-150.
 3. Cover the surface with the SikaProof® A membrane, using 2.0 m width roll) and bond the overlaps with the ancillary self-adhesive-strips or SikaProof® Tape-150 and SikaProof® ExTape-150.
 4. Form all necessary details, such as pipe penetrations, shaft connections, lift pit edges, pile head, expansion joints and any other details using the appropriate ancillary products.
 5. Finally check all of the joint overlaps and connections, to ensure they are fully adhered.
 6. After removing the formwork penetrations, such as shuttering anchors, damage and construction joints can be sealed from outside with SikaProof® Patch-200 or Sikadur® Combiflex SG system.
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**Notes on Application /
Limitations**

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

SikaProof® A membranes are not permanently UV stabilised and so they cannot be installed on structures or areas permanently exposed to UV light and external weathering.

Do not apply SikaProof® A membranes during permanent rainfall.

Value Base

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.

Ecology, Health and Safety Information

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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