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ENVIRONMENTALLY IMPROVED
LOW EMISSION
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Product Data Sheet
Edition 2015-02_1
SikaProof® A

SikaProof® A

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

Product Description

SikaProof® A is a fully and permanently bonded, self-adhesive, composite sheet membrane waterproofing system for reinforced concrete structures. It consists of an embossed polyolefin (FPO) based 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 open-flames, 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. Suitable for use on:

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

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 reinforced 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)
- Temporarily resistant to weathering and UV-light during construction
- 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 waterproofing membranes
 - Sikadur-Combiflex SG system, FPO-based joint sealing system

Construction



Tests

Approval / Standards

- Product Declaration EN 13967 – Flexible sheets for waterproofing.(type A&T) CE Certificate No. 1349-CPD-065, 16.08.2011
- German abP “allgemeines bauaufsichtliches Prüfzeugnis“, MPA NRW, approval No. P-22-MPANRW-8600, 26.05.2011

- 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

- BBA technical approval for construction, Certificate No. 13/5075, 16.12.2013
- Cahier des Charges, French technical approval CCT 57, 28.02.2013
- BRANZ appraisal, New Zealand, No. 852 (2014), 05.02.2014
- ASTM Test reports No. 1240-13 A to C, 05.02.2014

Product Data

Form

Appearance / Colors 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-05	1.00 mm	1 m and 2 m	30 m
SikaProof® A-08	1.25 mm	1 m and 2 m	25 m
SikaProof® A-12	1.60 mm	1 m and 2 m	20 m

Storage

Storage Conditions / Shelf life SikaProof® A membrane rolls have a shelf-life of 18 months from date of production if stored properly in unopened, undamaged, original packaging, 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.

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-05	0.85 kg/m ²	(-5 /+10%)	EN 1849-2
	SikaProof® A-08	1.15 kg/m ²	(-5 /+10%)	
	SikaProof® A-12	1.50 kg/m ²	(-5 /+10%)	

Thickness		Total Thickness (=deff)	Membrane Thickness	Deviation	EN 1849-2
	SikaProof® A-05	1.10 mm	0.50 mm	(-5 /+10%)	
	SikaProof® A-08	1.25 mm	0.80 mm	(-5 /+10%)	
	SikaProof® A-12	1.60 mm	1.20 mm	(-5 /+10%)	
Watertightness to Liquid Water	Pass				EN 1928 B (24 h/60 kPa)
Resistance to Impact	SikaProof® A-05	≥ 150 mm			EN 12691
	SikaProof® A-08	≥ 250 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)
Resistance to Tear -Nail Shank (Machine Direction)	SikaProof® A-05	≥ 375 N			EN 12310-1
	SikaProof® A-08	≥ 400 N			
	SikaProof® A-12	≥ 550 N			
Resistance to Tear Nail Shank (Cross Direction)	SikaProof® A-05	≥ 400 N			EN 12310-1
	SikaProof® A-08	≥ 450 N			
	SikaProof® A-12	≥ 600 N			
Joint Strength	SikaProof® A-05	≥ 125 N / 50 mm			EN 12317-2
	SikaProof® A-08	≥ 200 N / 50 mm			
	SikaProof® A-12	≥ 300 N / 50 mm			
Tensile Strength (Machine Direction)	SikaProof® A-05	≥ 400 N / 50 mm			EN 12311-1
	SikaProof® A-08	≥ 450 N / 50 mm			
	SikaProof® A-12	≥ 700 N / 50 mm			
Tensile Strength (Cross Direction)	SikaProof® A-05	≥ 300 N / 50 mm			EN 12311-1
	SikaProof® A-08	≥ 450 N / 50 mm			
	SikaProof® A-12	≥ 700 N / 50 mm			
Elongation (Cross Direction)	SikaProof® A-05	≥ 900 %			EN 12311-1
	SikaProof® A-08	≥ 1000 %			
	SikaProof® A-12	≥ 1150 %			

Water Vapour Transmission	SikaProof® A-05	0.63 g/m ² x 24 h m = 57'500 Sd = 63 m	(- /+20%)	EN 1931 (+23°C/75% r.h.)
	SikaProof® A-08	0.51 g/m ² x 24 h m = 58'000 Sd = 78 m	(- /+20%)	
	SikaProof® A-12	0.35 g/m ² x 24 h m = 67'000 Sd = 114 m	(- /+20%)	
Resistance to Static Load	≥ 20 kg			EN 12730 (Method B, 24 h/20 kg)
Reaction to Fire	Class E			EN ISO 11925-2

Additional Data (not CE relevant)

Accessory	SikaProof® Patch-200 is an ancillary product for the SikaProof® A sheet membrane waterproofing system.			
Radon Permeability	SikaProof® A-08	Pass up to 7.0 bar		Certificate E-214/2011
	SikaProof® A-12	Pass up to 7.0 bar		Certificate E-215/2011
Waterresistance to lateral water underflow of membrane system	SikaProof® A-08	≥7.0 bar		
	SikaProof® A-12	≥ 7.0 bar		
Radon Gas Diffusion Coefficient	SikaProof® A-08	(2.0 +/- 0.3) x 10 ⁻¹² m ² /s		
	SikaProof® A-12	(5.3 +/- 0.7) x 10 ⁻¹² m ² /s		
	SikaProof® A-08 joints	(6.1+/-1.1)x10 ⁻¹² m ² /s		Certificate E-225/2012
Methane Gas Permeability	SikaProof® A-08	140 ml / m ² x d		ISO 7229
	SikaProof® A-08 joints	180 ml / m ² x d (-/+10%)		
Root Resistance	SikaProof® A-08 joints	Pass		CEN/TS 14416

ASTM Data

**All ASTM Data,
Nelson Testing Lab Report**

Hydrostatic Pressure	SikaProof® A-05	Pass	ASTM D 5385 (100 psi)
	SikaProof® A-08	Pass	
	SikaProof® A-12	Pass	
Low Temperature Flexibility	SikaProof® A-05	Pass	ASTM D 1970 (-20 °F)
	SikaProof® A-08	Pass	
	SikaProof® A-12	Pass	
Crack Cycling	SikaProof® A-05	Pass	ASTM C 836 (-15°F, 10 cycles)
	SikaProof® A-08	Pass	
	SikaProof® A-12	Pass	
Tensile Strength	SikaProof® A-05	≥ 1'125 psi	ASTM D 412
	SikaProof® A-08	≥ 1'125 psi	
	SikaProof® A-12	≥ 1'255 psi	
Elongation	SikaProof® A-05	≥ 650 %	ASTM D 412
	SikaProof® A-08	≥ 685 %	
	SikaProof® A-12	≥ 725%	

Puncture Resistance	SikaProof® A-05	≥ 125 lbs	ASTM E 154
	SikaProof® A-08	≥ 140 lbs	
	SikaProof® A-12	≥ 180 lbs	
Peel Adhesion to Concrete	SikaProof® A-05	≥ 42 lbs/in	ASTM D 903
	SikaProof® A-08	≥ 48 lbs/in	
	SikaProof® A-12	≥ 50 lbs/in	
Lap peel adhesion	SikaProof® A-05	≥ 40 lbs/in	ASTM D 1876
	SikaProof® A-08	≥ 40 lbs/in	
	SikaProof® A-12	≥ 40 lbs/in	
Water Vapor Transmission	SikaProof® A-05	≥ 0.40 perms (- /+20%)	ASTM E 96
	SikaProof® A-08	≥ 0.35 perms	
	SikaProof® A-12	≥ 0.25 perms	
Water Absorption	SikaProof® A-05	≥ 2.2 % (- /+20%)	ASTM D 570
	SikaProof® A-08	≥ 2.2 %	
	SikaProof® A-12	≥ 1.2 %	
Substrate quality	The contact surface is the light yellow membrane side of the SikaProof® A membrane. It must be dry, clean and free of any materials that could impair the adhesion.		

System Information

System Components	<ul style="list-style-type: none"> ■ 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 butyl-rubber, width 150 mm ■ SikaProof® ExTape-150, self-adhesive tape for external jointing, based on butyl-rubber, width 150 mm
Accessories	<ul style="list-style-type: none"> ■ SikaProof® A-08 / -12 Edge, preformed sheet in an L-shape, to form the waterproofing system edges, corners and connections ■ SikaProof® Patch-200 B, external membrane patching tape for sealing any local damage or penetrations, supplied in 200 mm width ■ SikaProof® MetalSheet, to create special details, such as pile heads ■ SikaProof® FixTape-50, for fixing and repairing around details, e.g. around pile heads/caps and penetrations

Application Details

Substrate Quality	<p>SikaProof® A membrane must be applied on a sufficiently stable substrate to avoid movement during the construction works.</p> <p>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.</p> <p>Suitable substrates to fix the SikaProof® A membrane system onto include:</p> <ul style="list-style-type: none"> ■ Concrete blinding ■ Formwork ■ Rigid thermal insulation ■ Plywood sheets / forms ■ Compacted soil/fill with geotextile (only for limited requirements)
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Application Conditions / Limitations

Bonding Surface Temperature +5°C min. / + 35°C

Bonding Surface Moisture Dry, respect the dew point

Ambient Air Temperature +5°C min. / + 35 °C

Application Instructions

Application Method

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 on the membrane sheet or with SikaProof® adhesive tapes..

Installation procedure:

1. Ensure the substrate is correctly constructed and prepared, see Section 5.1.
2. Install the pre-formed SikaProof® A Edge sheet for the perimeters and terminations / connections.
3. Form the corners with the same pre-fabricated Edge sheet and adhere them externally with SikaProof® ExTape-150 and internally with SikaProof® Tape-150.
4. 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.
5. Form standard details, such as pipe penetrations, shaft connections, pits, pile heads, expansion joints and shuttering anchors use the appropriate accessory products.
6. 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.
7. After the SikaProof® membrane system is applied the reinforcement will be fixed and the concrete will be poured.
8. 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.

Installation Instructions

Installation Method

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

The overlap joints of SikaProof® A membranes are not welded, they are sealed and fully bonded by self-adhesive strips prefabricated on the membrane sheets or with detailing tapes SikaProof® ExTape-150 outside and SikaProof® Tape-150 inside.

Installation procedure:

- Ensure the substrate fulfils the necessary requirements.
- 9. First start to install the perimeter edges and terminations, using a SikaProof® A Edge sheet or standard membrane sheets.
- 10. Form the corners with the membrane sheets, as in the Method Statment.
- 11. Lay out the SikaProof® A membrane sheets on the horizontal and vertical surfaces using 1.0 or 2.0 m width rolls (as appropriate) and bond the overlap joints with the self- adhesive strips lengthways and for cross joints using the SikaProof® ExTape-150 outside and SikaProof® Tape-150 inside.
- 12. Form the details, according to the Method Statement using the appropriate accessory products.
 - After the installation is completed, it is recommend inspection to check all of the overlap joints, connections and details, to ensure they are correctly installed and fully bonded.
 - Also before the concrete is poured onto SikaProof® A system, it is recommend a final inspection of the SikaProof® A waterproofing system to ensure the optimum bond between the SikaProof® A system and the reinforced concrete structure.
- 13. After removing the formwork all penetrations, such as shuttering anchors, any membrane damage and any construction joints have to be sealed on the external side (membrane side) using the appropriate accessories or complementary Sika waterproofing products.
 - After removing the formwork SikaProof® A system has to be protected in accordance with the stated requirements.
 - Before backfilling the SikaProof® A membranes has to be finally protected.

For more detailed information about installation, please refer to the current SikaProof® A system Method Statement and Application Manual.

Notes on Installation / Limitations

- SikaProof® A membranes must only be installed by Sika trained and approved Sika contractors.
 - Do not install SikaProof® A membranes during continuous or prolonged rainfall.
 - SikaProof® A membrane is not permanently UV and weather resistant. The membrane sheets have to be protected against such exposure:
 - For example, the structural concrete has to be placed onto the SikaProof® A membranes within 4 weeks in the climate of central Europe. For more detailed informations please refer to the current Method Statement.
 - SikaProof® A membranes must not be installed on structures permanently exposed to UV light and weathering.
 - For the fully bond of the SikaProof® A membrane system to the structural concrete an adequate concrete quality (mix design) is required, please refer to the current Method Statement.
 - Additional joint sealing using SikaSwel® S-2 or SikaSwel® A is recommended for connections, around penetrations and in constructions joints.
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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 Material Safety Data Sheet following EC- Regulation 1907/2006, Article 31 is not required to bring this product to the market, to transport, or to use it. The product does not damage the environment when used as specified.
REACH	<p>European Community Regulation on chemicals and their safe use (REACH: EC 1907/2006)</p> <p>This product is an article within the meaning 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. Therefore, there are no registration requirements for substances in articles within the meaning of Article 7.1 of the Regulation.</p> <p>Based on our current knowledge, this product does not contain SVHC (substances of very high concern) from the candidate list published by the European Chemicals Agency in concentrations above 0.1 % (w/w).</p>
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.



Sika Singapore Pte Ltd
 200 Pandan Loop, 06-02 Pantech 21
 Singapore 128388
 SINGAPORE

Phone: +65 6777 2811
 Fax: +65 6779 6200
 e-mail: info@sg.sika.com
www.sika.com.sg



Sika Kimia Sdn Bhd
 Lot 689 Nilai Industrial Estate
 71800 Nilai, Negeri Sembilan DK
 MALAYSIA

Phone: +606-7991762
 Fax: +606-7991980
 e-mail: info@my.sika.com
www.sika.com.my

