

PRODUCT DATA SHEET

SikaProof® A+ 12

FPO SHEET MEMBRANE FOR PRE-APPLIED FULLY BONDED BELOW GROUND WATERPROOFING

PRODUCT DESCRIPTION

SikaProof® A+ 12 is a polyolefin (FPO) based sheet membrane for below ground waterproofing of reinforced concrete structures. It is loose laid onto prepared substrates or formwork before fixing reinforcement and casting concrete. A special hybrid bonding layer on the membrane forms a permanent bond with the fresh concrete. Overlap joints are sealed using cold-applied tapes. The total thickness is 1.75 mm with a membrane thickness of 1.20 mm.

USES

SikaProof® A+ 12 may only be used by experienced professionals.

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

- Reinforced concrete base slabs
- Reinforced concrete walls with single and double-faced formwork
- Extension and reconstruction works
- Prefabricated structures

CHARACTERISTICS / ADVANTAGES

- Pre-applied: Fixed before placing reinforcement and casting concrete
- Dual bond: Mechanical and adhesive bond with fresh concrete
- High flexibility and crack-bridging capabilities
- No lateral water migration between the concrete structure and the membrane system
- High watertightness tested according to various standards
- Fully and permanently bonded to the reinforced concrete structure
- Resistant to aggressive conditions in natural ground water and soil
- Easy to install with fully adhered joints
- Temporarily resistant to weathering and UV exposure during construction
- Can be combined with other approved Sika® Waterproofing / Joint Sealing Systems

PRODUCT INFORMATION

Chemical Base	Membrane Layer	Flexible Polyolefin (FPO)	
	Hybrid Layer	Cement modified polymer	
Packaging	Product	Roll width	Roll length
	SikaProof® A+ 12	1.00 m (3.28 ft) or 2.00 m (6.56 ft)	20 m (65 ft)

Appearance / Color	Light yellow membrane containing a light grey bonding layer		
Shelf Life	18 months shelf life from date of production		
Storage Conditions	Product must be stored in original unopened and undamaged sealed packaging in dry conditions and temperatures between +5°C (40°F) and +30°C (86°F). Store in a horizontal 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.		
Effective Thickness	<u>Total Thickness (=deff)</u>	<u>1.75 mm (-5/+10 %)</u>	(ASTM D3767)
	<u>Membrane Thickness</u>	<u>1.20 mm</u>	

TECHNICAL INFORMATION

Impact Strength	200 lbs (no puncture)	(ASTM E154)
Tensile Strength	5.7 MPa (832 psi)	(ASTM D412)
Elongation	>1400%	(ASTM D412)
Adhesion in Peel	22 lbf-in	(ASTM D903)
Joint Peel Resistance	32 lbf-in	(ASTM D1876)
Low Temperature Bend	Pass - no cracking at -29°C (-20°F)	(ASTM D1970)
Water Vapor Transmission	3.45 x 10 ⁻⁹ g/Pa.S.m ² (0.06 perms)	(ASTM E96)
Water Tightness	Pass, up to 7 bar (234 ft)	(ASTM D5385)
Resistance to lateral water migration	Pass, up to 7 bar (234 ft)	(ASTM D5385 Modified)
Durability of Water Tightness against Ageing	Pass (12 weeks) Pass (Method B, 24 h/60 kPa)	(EN 1847) (EN 1928)
Durability of Water Tightness against Chemicals	Pass (28 d/+23 °C) Pass (Method B, 24 h)	(EN 1847) (EN 1928)

SYSTEM INFORMATION

System Structure	<p>The following system products must be used:</p> <ul style="list-style-type: none"> ▪ SikaProof® A+ 12 sheet membrane ▪ SikaProof® Tape A+ self-adhesive tape for internal jointing ▪ SikaProof® Sandwich Tape (optional alternative for internal jointing) <p>Ancillary products:</p> <ul style="list-style-type: none"> ▪ Accessories and complementary products are available to provide detailing and connection solutions.
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APPLICATION INFORMATION

Substrate Moisture Content	No Standing Water (refer to important considerations for more information)
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APPLICATION INSTRUCTIONS

EQUIPMENT

- Tape measure
- Marking pen
- Razor knife
- Scissors
- Pressure roller
- Clean lint-free cloth
- Metal straight edge for cutting
- Protective sheet for cutting

SUBSTRATE QUALITY

SikaProof® A+ 12 membrane must be applied on a sufficiently stable substrate to avoid movement during the construction works. Substrate surface must be smooth, uniform and clean. Large gaps and voids ($\geq 12\text{--}15\text{ mm}$) must be filled before membrane installation. Substrate can be damp or slightly wet, ponding water must be avoided. Suitable membrane fixing substrates include:

- Concrete blinding
- Formwork
- Rigid thermal insulation
- Plywood sheets / forms
- well compacted soil

APPLICATION METHOD / TOOLS

Installation procedure

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

Installation method - General

After substrate conditions have been fulfilled, the waterproofing membrane is installed by loose laying onto horizontal / inclined substrates or fastening onto vertical substrates.

Overlap and transverse joints

All overlap and transverse joints must be bonded and sealed either with cold applied SikaProof® Tape A+ or SikaProof® Sandwich Tape. Alternatively, joints can be thermal jointed with appropriate hot air heating equipment.

Installation method - Detailing

Form all details and connections using the appropriate SikaProof® ancillary products outlined in the Sika® Method Statement: SikaProof® A+.

Construction and expansion joints

For sealing these types of joints, use additional Sika® Joint Solutions.

Inspection and quality control of installation

A final inspection before placing concrete must be carried out to ensure the complete membrane system has been correctly installed, any damage repaired and the surface of the hybrid-bonding layer is clean.

Concrete placement

Place concrete directly onto or against the membrane within 90 days after installation.

Formwork removal

After removing the formwork, all penetrations such as shuttering anchors, any membrane damage and construction joints must be sealed using the appropriate SikaProof® A+ 12 ancillary products or complementary Sika Waterproofing Systems.

Backfilling protection

After formwork removal and before backfilling, SikaProof® A+ 12 system must be protected with an appropriate protection sheet as soon as possible or at the latest within 90 days.

AVAILABILITY/WARRANTY

- Sika® Method Statement: SikaProof® A+
- Sika® Application Manual: SikaProof® A+

LIMITATIONS

Installation work must only be carried out by Sika® trained, approved or competent contractors experienced in this type of application.

- Reference must also be made to the Sika® Method Statement: SikaProof® A+ System for more detailed information.
- Do not install SikaProof® A+ 12 membrane during continuous or prolonged rain, snowfall or sandstorm.
- The substrate application surface must be clean with no standing water.
- If SikaProof® A+ 12 has to be applied under wet conditions or temperatures below $+5^{\circ}\text{C}$ (40°F). Exceptions are possible under special circumstances with appropriate precautions. Contact Sika® Technical Services for more information.
- Additional Sika® Joint Sealing Solutions (minimum SikaSwell®) must be used for connections,

- around penetrations and for construction and expansion joints.
- Concrete must be placed within 90 days after membrane system installation.
 - Adequate concrete quality (mix design and workmanship) is required to achieve optimum adhesion of the membrane system to the concrete.
 - SikaProof® A+ 12 membrane is not permanently UV and weather resistant. Therefore the membrane system must not be installed on structures where it will be permanently exposed to UV light.
 - After formwork removal, the membrane system (membrane side) must be protected with appropriate protection sheets as soon as possible or at the latest before backfilling or within 90 days after installation.
 - To ensure the most suitable type of membrane is selected for the project, refer to section 'Project Design' of the 'Sika® Method Statement: SikaProof® A+ System' or contact Sika® Technical Services for more information.

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

REGULATION (EC) NO 1907/2006 - REACH

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 the 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)

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR

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