

PRODUCT DATA SHEET

Sikaplan® SGK-15

Polymeric membrane for adhered roof waterproofing

DESCRIPTION

Sikaplan® SGK-15 is a multi-layer, polyvinyl chloride, weldable, (PVC) roof waterproofing sheet membrane which is fully bonded using Sika-Trocal® C-300 adhesive. It contains an inlay of glass non-woven and polyester fleece backing according to EN 13956.

USES

Roof waterproofing membrane for:

- Fully bonded, exposed roofs
- The product can be used on the following substrates:
 - Bitumen sheet membranes: Slate, mineral granules, new and aged
 - Concrete
 - EPS: compressive strength ≥ 100 kPa (10 %), Density > 20 kg/m³
 - Fibre cement boards
 - Lightweight concrete
 - Metal decking
 - Mineral fibre boards (e.g. Bondrock MV)
 - Oriented Strand Boards (OSB)
 - Plywood panels
 - PUR/PIR insulation boards, (e.g. Sarnatherm PIR GT, Kingspan TR 27)

CHARACTERISTICS / ADVANTAGES

- Resistant to permanent UV exposure
- High dimensional stability from glass fleece inlay
- Water vapour permeable
- Resistant to many common environmental influences
- Hot air weldable
- No open flame equipment required
- Hot air welding without use of open flames

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 13956 - Polymeric sheets for roof waterproofing
- Reaction to Fire, ENV 1187, MPA NRW, Test Report No. 230006508-2
- Reaction to Fire, EN 13501-1, MFPA Leipzig, Test Report No. KB 3.1/11-008-4

PRODUCT INFORMATION

Packaging	Packing unit	
	Roll length	15,00 m
	Roll width	2,00 m
	Roll weight	63,00 kg
Appearance / Colour	Surface	slightly structured
	Colours	
	Top surface	light grey (~RAL 7047) lead grey (~RAL 7011)
	Bottom surface	dark grey
Top surface of sheet is available in other colours on request, subject to minimum order quantities. Please contact our customer service, for information of which colors are sold in Denmark.		
Shelf life	5 years from date of production	
Storage conditions	The Product must be stored in original unopened and undamaged packaging in dry conditions and temperatures between +5 °C and +30 °C. 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.	
Product declaration	EN 13956: Polymeric sheets for roof waterproofing	
Visible defects	Pass	(EN 1850-2)
Length	15,00 m (-0 % / +5 %)	(EN 1848-2)
Width	2,00 m (-0,5 % / +1 %)	(EN 1848-2)
Effective thickness	1,5 mm (-5 % / +10 %)	(EN 1849-2)
Straightness	≤ 30 mm	(EN 1848-2)
Flatness	≤ 10 mm	(EN 1848-2)
Mass per area	2,1 kg/m ² (-5 % / +10 %)	(EN 1849-2)

TECHNICAL INFORMATION

Resistance to impact	hard substrate	≥ 700 mm	(EN 12691)
	soft substrate	≥ 1500 mm	
Hail resistance	rigid substrate	≥ 22 m/s	(EN 13583)
	flexible substrate	≥ 30 m/s	
Tensile strength	longitudinal (md) ¹⁾	≥ 600 N / 50 mm	(EN 12311-2)
	transversal (cmd) ²⁾	≥ 600 N / 50 mm	
1) md = machine direction 2) cmd = cross machine direction			
Elongation	longitudinal (md) ¹⁾	≥ 50 %	(EN 12311-2)
	transversal (cmd) ²⁾	≥ 50 %	
1) md = machine direction 2) cmd = cross machine direction			
Dimensional stability	longitudinal (md) ¹⁾	≤ 0,3 %	(EN 1107-2)
	transversal (cmd) ²⁾	≤ 0,3 %	
1) md = machine direction			

2) cmd = cross machine direction

Tear strength	<u>longitudinal (md)¹⁾</u>	<u>≥ 150 N</u>	(EN 12310-2)
	<u>transversal (cmd)²⁾</u>	<u>≥ 150 N</u>	
	1) md = machine direction 2) cmd = cross machine direction		
Joint peel resistance	≥ 300 N / 50 mm		(EN 12316-2)
Joint shear resistance	≥ 500 N / 50 mm		(EN 12317-2)
Foldability at low temperature	≤ -25 °C		(EN 495-5)
External fire performance	B _{ROOF} (t1) < 20°, ≥ 20°, B _{ROOF} (t3) < 10° / < 70°		(EN 1187) (EN 13501-5)
Reaction to fire	Class E		(EN ISO 11925-2, classification to EN 13501-1)
Effect of liquid chemicals, including water	Resistant to many chemicals. Contact Sika Technical Services for additional information.		(EN 1847)
Resistance to UV exposure	Pass (> 5 000 h / grade 0)		(EN 1297)
Water-vapour transmission rate	μ = 20 000		(EN 1931)
Watertightness	Pass		(EN 1928)

SYSTEM INFORMATION

System structure	The following products must be considered for use depending on roof design: <ul style="list-style-type: none">▪ Sikaplan® D-18 or Sikaplan® S-15 unreinforced detailing sheet▪ Sikaplan® G-15 or Sikaplan® SG-15 roofing sheet▪ Moulded corner pieces, prefabricated corners and pipe flashings▪ Sika-Trocal® Metal Sheet Type S▪ Sarnabar for peel stop▪ Sika-Trocal® Cleaner-2000▪ Sika-Trocal® Cleaner L-100▪ Sika-Trocal® Welding Agent▪ Sika-Trocal® Seam Sealant▪ Sika-Trocal® C-300 (PU adhesive for surface bonding)▪ Sika-Trocal® C-733 (Contact adhesive) Contact our Sales regarding availability.
Compatibility	<ul style="list-style-type: none">▪ The top surface of the membrane is not compatible in direct contact with bitumen, tar, fat, oil, solvent containing materials and plastic / thermo-plastic materials, e.g. expanded polystyrene (EPS), extruded polystyrene (XPS), polyurethane (PUR), polyisocyanurate (PIR) or phenolic foam (PF).▪ The underside of the membrane is protected from the incompatible materials by the polyester fleece backing.

APPLICATION INFORMATION

Ambient air temperature	-15 °C min. / +60 °C max. for hot air welding +5 °C min. / +60 °C max. for cold welding
Substrate temperature	-25 °C min. / +60 °C max. for hot air welding +5 °C min. / +60 °C max. for cold welding

BASIS OF PRODUCT DATA

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.

FURTHER INFORMATION

- Application Manual: Sikaplan® SGK-15

IMPORTANT CONSIDERATIONS

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

- The use of Sikaplan® SGK-15 membranes is limited to geographical locations with average monthly minimum temperatures of -25 °C. Permanent ambient temperature during use is limited to +50 °C.
- The use of some ancillary products such as adhesives, cleaners and solvents is limited to temperatures above +5 °C. Observe temperature limitations in the appropriate Product Data Sheets.
- Special measures may be compulsory for installation below +5 °C ambient temperature due to safety requirements in accordance with national regulations

ECOLOGY, HEALTH AND SAFETY

Fresh air ventilation must be ensured, when working (welding) in closed rooms.

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 this 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)

APPLICATION INSTRUCTIONS

EQUIPMENT

Hot air welding equipment

IMPORTANT

Welding parameters including temperature, machine speed, air flow, pressure and machine settings must be evaluated, adapted and checked on site according to the type of equipment and the climatic conditions before welding.

Select the most appropriate equipment required for the project:

- Hand-held manual electric hot air welding equipment
- Hand-held rubber or silicone seam pressure roller

- Hot air welding machines with a minimum controlled hot air temperature capability of +600 °C.

Recommended type of hot air welding machines:

- Manual: Leister Triac PID
- Automatic: Leister Variamat

SUBSTRATE QUALITY

- The roof construction and associated components must comply with national and local regulations.
- The supporting structure must be of sufficient structural strength to apply all new and existing layers of the roof build-up.
- The complete roof system must be designed and secured against wind uplift loadings.
- The substrate surface must be uniform, smooth and free of any sharp protrusions or burrs, etc.
- The supporting layer must be compatible with the membrane, solvent resistant, clean, dry and free of grease and dust.
- Metal sheets must be degreased with Sarna Cleaner-2000 / solvent T 660 / Sarnafil® Cleaner.

APPLICATION

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

Reference must be made to the Installation instructions: Sikaplan® SGK-types for adhered system.

Sika wind uplift calculations

The fastener pattern is calculated in accordance with local wind loading conditions and will be specified by Sika Roofing.

Fixing method - General

- The waterproofing membrane is installed by loose laying onto a partially adhesive coated substrate.
- The membrane is secured to the roof with mechanical fastenings within the overlaps.
- Exposed fastenings are covered with a membrane cover strip.
- Overlap seams are hot welded using specialised hot air equipment or by cold welding with a welding agent.
- The roof perimeter is mechanically fixed using Sarnabar or Sika-Trocal® Metal Sheet Type S profiles.

Testing overlap seams

1. Seams are tested with a screwdriver (rounded edges) to ensure the integrity/completion of the weld.
2. Imperfections are rectified by hot air welding.

Sealing cold welded seam edges

1. After testing, seam edges are sealed using Sika-Trocal® Seam Sealant.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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LEGAL NOTES

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

Sika Danmark A/S

Hirsemarken 5
3520 Farum
Tlf. +45 48 18 85 85
www.sika.dk



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