

## PRODUCT DATA SHEET

# Sikaplan® SGK-18

Polymeric membrane for adhered roof waterproofing

### PRODUCT DESCRIPTION

Sikaplan® SGK-18 is a multi-layer, polyvinyl chloride, weldable, (PVC) roof waterproofing sheet membrane which is fully bonded using Sikal® 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
  - Fibre cement boards
  - Lightweight concrete
  - Metal decking
  - Sikatherm Mineral Wool (with facing)
  - Oriented Strand Boards (OSB)
  - Plywood panels
  - Sikatherm PIR GT

### 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 / STANDARDS

- CE Marking and Declaration of Performance to EN 13956 - Polymeric sheets for roof waterproofing
- EN13501-5 Broof(t4) (as part of system).
- Reaction to Fire, EN 13501-1

## PRODUCT INFORMATION

<b>Packaging</b>	Packing unit	Refer to price list
	Roll length	15,00 m
	Roll width	2,00 m
	Roll weight	75,00 kg
Refer to current price list for packaging variations.		
<b>Appearance / Colour</b>	Surface	slightly structured
	<b>Colours</b>	
	Top surface	light grey (~ nearest RAL 7047) lead grey (~nearest RAL 7011) traffic white (~nearest RAL 9016)
	Bottom surface	dark grey
Top surface of sheet is available in other colours on request, subject to minimum order quantities.		
<b>Shelf Life</b>	5 years from date of production	
<b>Storage Conditions</b>	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.	
<b>Product Declaration</b>	EN 13956: Polymeric sheets for roof waterproofing	
<b>Visible Defects</b>	Pass	(EN 1850-2)
<b>Length</b>	15,00 m (-0 % / +5 %)	(EN 1848-2)
<b>Width</b>	2,00 m (-0,5 % / +1 %)	(EN 1848-2)
<b>Effective Thickness</b>	1,8 mm (-5 % / +10 %)	(EN 1849-2)
<b>Straightness</b>	≤ 30 mm	(EN 1848-2)
<b>Flatness</b>	≤ 10 mm	(EN 1848-2)
<b>Mass per unit area</b>	2,5 kg/m <sup>2</sup> (-5 % / +10 %)	(EN 1849-2)

## TECHNICAL INFORMATION

<b>Resistance to Impact</b>	hard substrate	≥ 800 mm	(EN 12691)
	soft substrate	≥ 1500 mm	
<b>Hail Resistance</b>	rigid substrate	≥ 25 m/s	(EN13583)
	flexible substrate	≥ 32 m/s	
<b>Tensile Strength</b>	longitudinal (md) <sup>1)</sup>	≥ 600 N/50 mm	(EN 12311-2)
	transversal (cmd) <sup>2)</sup>	≥ 600 N/50 mm	
1) md - machine direction 2) cmd - cross machine direction			
<b>Elongation</b>	longitudinal (md) <sup>1)</sup>	≥ 50 %	(EN 12311-2)
	transversal (cmd) <sup>2)</sup>	≥ 50 %	
1) md - machine direction 2) cmd - cross machine direction			
<b>Dimensional Stability</b>	longitudinal (md) <sup>1)</sup>	≤  0,3  %	(EN 1107-2)
	transversal (cmd) <sup>2)</sup>	≤  0,3  %	
1) md - machine direction			

	2) cmd - cross machine direction		
<b>Tear Strength</b>	<u>longitudinal (md)<sup>1)</sup></u>	<u>≥ 150 N</u>	(EN 12310-2)
	<u>transversal (cmd)<sup>2)</sup></u>	<u>≥ 150 N</u>	
	1) md - machine direction 2) cmd - cross machine direction		
<b>Joint Peel Resistance</b>	≥ 300 N / 50 mm		(EN 12316-2)
<b>Joint Shear Resistance</b>	≥ 500 N / 50 mm		(EN 12317-2)
<b>Foldability at Low Temperature</b>	≤ -25 °C		(EN 495-5)
<b>External Fire Performance</b>	BROOF(t4)		(EN 13501-5)
<b>Reaction to Fire</b>	Class E	(EN ISO 11925-2, classification to EN 13501-1)	
<b>Effect of Liquid Chemicals, Including Water</b>	<u>Resistant to many chemicals.</u>		(EN 1847)
	Contact Sika Technical Services for additional information.		
<b>UV Exposure</b>	Pass (> 5 000 h / grade 0)		(EN 1297)
<b>Water Vapour Transimission</b>	μ = 20 000		(EN 1931)
<b>Water Tightness</b>	Pass		(EN 1928)

## APPLICATION INFORMATION

<b>Ambient Air Temperature</b>	-15 °C min. / +60 °C max. for hot air welding +5 °C min. / +60 °C max. for cold welding
<b>Substrate Temperature</b>	-25 °C min. / +60 °C max. for hot air welding +5 °C min. / +60 °C max. for cold welding

# SYSTEM INFORMATION

## Compatibility

- The top surface of the membrane is not compatible in direct contact with bitumen, tar, fat, oil, solvent containing materials and certain plastic / thermoplastic materials, e.g. expanded polystyrene (EPS) and extruded polystyrene (XPS).
- The underside of the membrane is protected from some incompatible materials by the polyester fleece backing.

## VALUE BASE

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

## FURTHER DOCUMENTS

- Application Manual: Sikaplan® SGK-18

## LIMITATIONS

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

- The use of Sikaplan® SGK-18 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

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.

### APPLICATION

Strictly follow installation procedures as defined in the project specification, application manuals and working instructions etc.

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

## LOCAL RESTRICTIONS

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

## 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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