Sika-Trocal®

PRODUCT DATA SHEET

Sikaplan® G-15

Polymeric membrane for mechanically fastened roof waterproofing

PRODUCT DESCRIPTION

Sikaplan® G-15 (thickness 1.5mm) is a polyester reinforced multilayer, synthetic roof waterproofing sheet based on premium-quality polyvinyl chloride (PVC) according to EN 13956.

USES

Waterproofing membrane for exposed flat roofs:
- Mechanically fastened roofing systems.
- Detailing.

CHARACTERISTICS / ADVANTAGES

- Resistant to permanent UV irradiation.
- Resistant to permanent wind exposure.
- High water vapour permeability.
- Resistant to all common environmental influences.
- Hot air welding without use of open flames.
- Recyclable.

ENVIRONMENTAL INFORMATION

- Environmental Product Declaration (EPD) available.

APPROVALS / STANDARDS

- Polymeric sheets for roof waterproofing according to EN 13956, certified by notified body 1213-CPD-4125/4127 and provided with the CE-mark.
- BS476 Part 3 (membrane included as part of roof system)
- Reaction to fire according to EN 13501-1. Class E (membrane alone).
- External fire performance tested according to ENV 1187 and classified according to EN 13501-5: BROOF(t1), BROOF(t3).
- Factory Mutual (FM) Approval Class: 4470.
- Quality Management system in accordance with EN ISO 9001/14001.

PRODUCT INFORMATION

Packaging	Packing unit:	see price list
	Roll length:	20.00 m
	Roll width:	0.77 m
	Roll weight:	27.72 kg

Appearance / Colour	**Surface:**	**structured**
	Colours:	
	Top surface:	light grey (nearest RAL 7047) slate grey (nearest RAL 7015)
	Bottom surface:	dark grey

Top surface of sheet in other colours available on request, subject to minimum order quantities.

Shelf Life	5 years from date of production in unopened, undamaged and original packaging.	
Storage Conditions	Rolls must be stored between +5 °C and +30 °C in a horizontal position on pallet, protected from direct sunlight, rain and snow. Do not stack pallets of rolls or any other material during transport or storage.	
Product Declaration	EN 13956	
Visible Defects	Pass	(EN 1850-2)
Length	20 m (- 0 % / + 5 %)	(EN 1848-2)
Width	0.77 m / 1.00 m / 1.54 m / 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 unit area	1.8 kg/m² (- 5 % / + 10 %)	(EN 1849-2)

TECHNICAL INFORMATION

Resistance to Impact	hard substrate	≥ 400 mm	(EN 12691)
	soft substrate	≥ 700 mm	
Hail Resistance	rigid substrate:	≥ 18 m/s	(EN 13583)
	flexible substrate:	≥ 30 m/s	
Tensile Strength	longitudinal (md)[1)]	≥ 1000 N/50 mm	(EN 12311-2)
	transversal (cmd)[2)]	≥ 900 N/50 mm	

1) md = machine direction
2) cmd = cross machine direction

Elongation	longitudinal (md)[1)]	≥ 15 %	(EN 12311-2)
	transversal (cmd)[2)]	≥ 15 %	

1) md = machine direction
2) cmd = cross machine direction

Dimensional Stability	longitudinal (md)[1)]	≤ |0.5| %	(EN 1107-2)
	transversal (cmd)[2)]	≤ |0.5| %	

1) md = machine direction
2) cmd = cross machine direction

Tear Strength	longitudinal (md)[1]	≥ 150 N	(EN 12310-2)
	transversal (cmd)[2]	≥ 150 N	

1) md = machine direction
2) cmd = cross machine direction

Joint Peel Resistance	no failure of the joint	(EN 12316-2)
Joint Shear Resistance	≥ 600 N/50 mm	(EN 12317-2)
Foldability at Low Temperature	≤ -25 °C	(EN 495-5)
External Fire Performance	B_{ROOF}(t1) < 20°	(EN 13501-5)
	B_{ROOF}(t3) < 10°	
	AC (As part of roof system)	BS476 Part 3
Reaction to Fire	Class E	(EN ISO 11925-2, classification to EN 13501-1)
Effect of Liquid Chemicals, Including Water	On request	(EN 1847)
UV Exposure	Pass (> 5000 h / grade 0)	(EN 1297)
Water Vapour Transimission	μ = 20 000	(EN 1931)
Water Tightness	Pass	(EN 1928)

Solar Reflectance Index (ASTM E 1980)

Colour	Initial	3 years aged	Test institute
RAL 9016	109	81	CRRC
RAL 7047	61		Sika

CRRC tested products are listed in Cool Roof Rating Council (CRRC) product data base.

USGBC LEED Rating (ASTM E 1980)

Colour	Initial	3 years aged
RAL 9016	SRI > 82	-

Conform on the minimum requirements of LEED V4 SS credit 5 option 1 Heat Island reduction - Roof.

SYSTEM INFORMATION

System Structure

The folowing accessories shall be used:
- Moulded corner pieces, prefabricated corners and pipe flashings
- Sika-Trocal® Metal Sheet Type S
- Sika-Trocal® Cleaner L 100
- Sika-Trocal® Welding Agent
- Sika-Trocal® Seam Sealant
- Sika-Trocal® C 733 (contact adhesive)

Compatibility

Not compatible with direct contact to other plastics, e.g. EPS, XPS, or PF. Not resistant to tar, bitumen, oil and solvent containing materials.

APPLICATION INFORMATION

Ambient Air Temperature	-15 °C min. / +60 °C max.
Substrate Temperature	-25 °C min. / +60 °C max.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

The substrate surface must be uniform, smooth and free of any sharp protrusions or burrs, etc. Sikaplan® G-15 must be separated from any incompatible substrates by an effective separation layer to prevent accelerated ageing. Prevent from direct contact with bitumen, tar, fat, oil, solvent containing materials and direct contact to other plastic materials, e.g. expanded polystyrene (EPS), extruded polystyrene (XPS) and polyurethane (PUR) as this could adversely affect the product properties.

APPLICATION

Installation works must be carried out only by Sika-Trocal® Licensed roofing Contractors.
Installation of some ancillary products, e.g. contact adhesives / thinners is limited to temperatures above +5 °C. Please refer to the respective Product Data Sheets. Special measures may be compulsory for installation below +5 °C ambient temperature due to safety requirements in accordance with national regulations.

APPLICATION METHOD / TOOLS

Installation procedure:
According to the valid installation instructions for Sikaplan®-G -type system for mechanically fastened roofing systems.
Welding Method:
Overlap seams are welded by electric hot welding equipment, such as manual hot air welding machines and pressure rollers or automatic hot air welding machines with controlled hot air temperature capability of minimum 600 °C. Or with THF solvent.
Recommended type of equipment:
LEISTER for manual welding
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 situation prior to welding. The effective width of welded overlaps must be minimum 20 mm.
The seams must be mechanically tested with screw driver to ensure the integrity / completion of the weld. Any imperfections must be rectified by hot air welding.
Cold welding of sheet overlaps with Sika-Trocal® Welding Agent is permitted for small repair work within application limits. Cold welded seam edges must be sealed with Sika-Trocal® Seam Sealant after testing.

LIMITATIONS

Geographical / Climate
The use of Sikaplan® G-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.

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.

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 exact product data and uses.

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 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 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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