BUILDING TRUST

PRODUCT DATA SHEET

Sikaplan® G-15

1.5 mm thick polymeric PVC membrane for mechanically-fastened roof waterproofing

DESCRIPTION

Sikaplan® G-15 (thickness 1.5 mm) is a multi-layer synthetic waterproofing membrane designed for roofing applications. Manufactured from polyvinyl chloride (PVC), it incorporates an internal polyester reinforcement, in compliance with EN 13956 standards. The product is hot air weldable, formulated for UV exposure and independently assessed for external fire performance. Can be applied in all climatic zones.

USES

Sikaplan® G-15 is used as a waterproofing membrane in the following roofing applications:
- Mechanically-fastened roofing systems

CHARACTERISTICS / ADVANTAGES

- Highly flexible membrane allows for easy application
- Increased resistance to damage through wind uplift
- Hot-air welding application avoids fire risk
- White coloured membranes reduce air conditioning costs by reducing heat transmission into the building
- IMPORTANT Requires named reference to an established recycling programme for post-consumer PVC that is easily accessible for > 65 % of customers and that feeds post-consumer recycling material to production of new products. Delete if no such recycling programme is available.Recyclable through [named] recycling program

ENVIRONMENTAL INFORMATION

- Specific Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by Institut für Bauen und Umwelt e.V. (IBU)
- Contributes towards satisfying Sustainable Sites (SS) Credit: Heat Island Reduction under LEED® v4 — 1–2 points
- Contributes towards satisfying Materials and Resources (MR) Credit: Building Product Disclosure and Optimization — Sourcing of Raw Materials under LEED® v4 — 1 point
- Contributes towards satisfying Materials and Resources (MR) Credit: Building product disclosure and optimization — Environmental Product Declarations under LEED® v4 — 1 point
- Contributes towards satisfying Materials and Resources (MR) Credit: Building Product Disclosure and Optimization — Material Ingredients under LEED® v4 — 1 point

CERTIFICATES AND TEST REPORTS

- CE marking and declaration of performance based on EN 13956:2012 Flexible sheets for waterproofing — Plastic and rubber sheets for roof waterproofing — Definitions and characteristics
- FM Approved, Certificate of Compliance, Sikaplan G, Approval Identification No. 4D3A9.AM & RR220930 & RR238057

PRODUCT INFORMATION

Composition	Polyvinyl chloride (PVC-p)	
Packaging	Roll width	2.00 m
	Roll length	20 m
Colour	Top layer colour	lead grey (~RAL 7012)
	Bottom layer colour	dark grey

Shelf Life	5 years from date of production	
Storage Conditions	The Product must be stored in original unopened and undamaged sealed packaging in dry conditions and temperatures between -5 °C and +40 °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 the packaging.	
Product Declaration	EN 13956 - Polymeric sheets for roof waterproofing	
Visible Defects	Pass	(EN 1850-2)
Length	20 m (+1 m / -0 m)	(EN 1848-2)
Width	2 m (+0.02 m / -0.01 m)	(EN 1848-2)
Effective Thickness	1.5 mm (+0.15 mm / -0.08 mm)	(EN 1849-2)
Straightness	≤ 30 mm	(EN 1848-2)
Flatness	≤ 10 mm	(EN 1848-2)
Mass per Unit Area	1.8 kg/m² (+0.18 kg/m² / -0.09 kg/m²)	(EN 1849-2)
Colour	matt	

TECHNICAL INFORMATION

Resistance to Impact	Method A, Hard support	≥ 600 mm	(EN 12691)
	Method B, Soft support	≥ 800 mm	
Hail Resistance	Hard support	≥ 25 m/s	(EN 13583)
	Soft support	≥ 30 m/s	
Dimensional Stability	Longitudinal (MD), aged 6 hours at +80 °C	≤ |0.5| %	(EN 1107-2)
	Transversal (CMD), aged 6 hours at +80 °C	≤ |0.5| %	
Resistance to tear (nail shank)	Longitudinal (MD)	≥ 250 N	(EN 12310-2)
	Transversal (CMD)	≥ 250 N	
Joint Peel Resistance	≥ 300 N/50 mm Failure mode C, 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, roof angle < 20°	Pass	(EN 13501-5)
	B_{Roof} T3, roof angle < 10°	Pass	
Reaction to Fire	Class E		(EN 13501-1)
Chemical Resistance	Resistant to specific chemicals. Contact Sika Technical Services for additional information.		(EN 1847)
Resistance to UV Exposure	> 5000 hours UV exposure	Grade 0	(EN 1297)
Diffusion Resistance to Water Vapour	Resistance factor, Method A, tested at +23 °C and 75 % r.h.	μ = 20 000	(EN 1931)
Water Tightness	Method B: at 10 kPa	Pass	(EN 1928)

Maximum Tensile Force	Longitudinal (MD)	≥ 1100 N/50 mm	(EN 12311-2)
	Transversal (CMD)	≥ 1000 N/50 mm	
Elongation at Maximum Tensile Force	Longitudinal (MD)	≥ 15 %	(EN 12311-2)
	Transversal (CMD)	≥ 15 %	

APPLICATION INFORMATION

Ambient Air Temperature	Maximum	+60°C
	Minimum	-15°C
Substrate Temperature	Maximum	+60 °C
	Minimum	-25 °C

SYSTEM INFORMATION

Compatibility

Membrane must be separated from any incompatible substrates / materials by an effective separation layer to prevent accelerated ageing. Not compatible in direct contact with bitumen, tar, fat, oil, solvent containing materials and plastic / thermoplastic materials, e.g. expanded polystyrene (EPS), extruded polystyrene (XPS), polyurethane (PUR), polyisocyanurate (PIR) or phenolic foam (PF). These materials could adversely affect the product properties.

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.

ECOLOGY, HEALTH AND SAFETY

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).

APPLICATION INSTRUCTIONS

EQUIPMENT

HOT-WELDING OVERLAP SEAMS

- Electric hot-air-welding equipment such as hand-held, manual hot-air-welding equipment and pressure rollers.
- Automatic hot-air-welding machines with controlled hot-air temperature capability of a minimum +600 °C.

Recommended equipment:

Manual	Leister Triac
Automatic	Varimat

SUBSTRATE PREPARATION

The substrate surface must be smooth and uniform. The supporting layer must be compatible with the membrane, resistant to solvents and dry.

1. Remove any sharp protrusions or burrs from the substrate.
2. If contaminants such as grease or dust are present, clean the supporting layer.

APPLICATION

IMPORTANT
Strictly follow installation procedures
Strictly follow installation procedures as defined in Method Statements, application manuals and working instructions which must always be adjusted to the actual site conditions.
IMPORTANT
Application by trained personnel
The application of this Product must only be carried out by an applicator that is trained or approved by Sika. The applicator must also be experienced in this type of application.
FIXING METHOD - GENERAL
The waterproofing membrane is installed by loose laying – without stretching the membrane or installing under tension – with mechanical fastening in the seam overlaps or independently of overlaps. Overlap seams are hot-air-welded using specialised hot-air equipment.
FIXING METHOD - SPOT FASTENING (SARNAFAST®)
1. Install the Product at right angles to the deck direction. Unroll the waterproofing membrane, overlapping it by 120 mm.
2. Fix the waterproofing membrane using Sarnafast® fasteners, barbed washers and tubes along the marked line, 35 mm from the edge of the membrane. The spacing of the fasteners must be in accordance with the project specific Sika calculations.
3. At upstands and at all penetrations, secure the Product with a Sarnabar®.
4. Use the 4 mm diameter SikaRoof® Welding Cord PVC to protect the roof covering against tearing and peeling off by wind uplift.

FIXING METHOD - FIELD FASTENING
1. Install the membrane at right angles to the deck direction. Unroll the waterproofing membrane, overlapping it by 80 mm.
2. Fix the membrane by induction-welding Sarnadisc hot-melt-coated washers and Sarnafast® fasteners along the marked line, 35 mm from the edge of the membrane. The spacing of the fasteners must be in accordance with the project specific Sika calculations.
3. At upstands and at all penetrations, secure the Product with a Sarnabar®.
4. Use the 4 mm diameter SikaRoof® Welding Cord PVC to protect the roof covering against tearing and peeling off by wind uplift.

HOT-WELDING OVERLAP SEAMS
Overlap seams must be welded by electric hot-welding equipment. Prior to 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 conditions. The effective width of overlaps welded by hot air must be a minimum of 20 mm.
TESTING OVERLAP SEAMS
1. Mechanically test seams with a rounded-edge screwdriver to ensure the integrity and completion of the weld.
2. Rectify any imperfections using hot-air-welding.

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.

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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