

PRODUCT DATA SHEET

Sikaplan® U-15 Tex

POLYMERIC PVC MEMBRANE FOR MECHANICALLY FASTENED AND BALLASTED ROOF WATER-PROOFING

DESCRIPTION

Sikaplan® U-15 Tex (thickness 1.5 mm) is a polyester reinforced multi-layer, synthetic roof waterproofing sheet based on polyvinyl chloride (PVC) with an inlay of glass non-woven according to EN 13956. Sikaplan® U-15 Tex is a hot air weldable roof membrane formulated for direct exposure and designed for use in all global climatic conditions.

USES

Waterproofing membrane for exposed roofs:

- Loose laid and mechanically fastened

Waterproofing membrane for protected roofs:

- Loose laid ballasted roofs with different ballast materials (e.g. gravel, concrete slabs)
- Green roofs (intensive, extensive)
- Utility roofs
- Terraces with pedestrian traffic

CHARACTERISTICS / ADVANTAGES

- Proven performances over decades
- Resistant to permanent UV exposure
- High dimensional stability from glass fleece inlay
- Resistant to permanent wind exposure
- High water vapour permeability
- Resistant to many common environmental influences
- Resistant to mechanical influences
- Resistant to micro-organisms
- Resistant to root penetration
- Hot air weldable
- No open flame equipment required

SUSTAINABILITY

- Conformity with LEED v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations.
- Conformity with LEED v4 MRc 3 (Option 2): Building Product Disclosure and Optimization - Sourcing of Raw Materials.
- Conformity with LEED v4 MRc 4 (Option 2): Building Product Disclosure and Optimization - Material Ingredients.
- Conformity with LEED v2009 MRc 4 (Option 2): Recycled Content.
- Environmental Product Declaration (EPD).

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 13956 - Polymeric sheets for roof waterproofing.

PRODUCT INFORMATION

Product declaration	EN 13956: Polymeric sheets for roof waterproofing	
Composition	Polyvinyl chloride (PVC)	
Packaging	Packing unit	Refer to price list
	Roll length	20,00 m
	Roll width	2,00 m
	Roll weight	76,00 kg
	Refer to current price list for packaging variations.	
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. Always refer to packaging.	
Appearance and colour	Surface	textured
	Colours	
	Top surface	light grey (~RAL 7047)
	Bottom surface	dark grey
Visible defects	Pass	(EN 1850-2)
Length	20,00 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	1,9 kg/m ² (-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	
Resistance to static loading	soft substrate	≥ 20 kg	(EN 12730)
	rigid substrate	≥ 20 kg	
Resistance to root penetration	Pass		(EN 13948)
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		
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)
Dimensional stability	longitudinal (md)1) ≤ 0,5 %	(EN 1107-2)
	transversal (cmd)2) ≤ 0,5 %	
1) md = machine direction 2) cmd = cross machine direction		
Foldability at low temperature	≤ -25 °C	(EN 495-5)
Watertightness	Pass	(EN 1928)
Water-vapour transmission rate	μ = 20 000	(EN 1931)
Effect of liquid chemicals, including water	Resistant to many chemicals Contact Sika Technical Services for additional information.	(EN 1847)
Resistance to UV exposure	Pass (> 5000 h / grade 0)	(EN 1297)
External fire performance	BROOF(t1) < 20°	(EN 13501-5)
Reaction to fire	Class E	(EN ISO 11925-2, classification to EN 13501-1)

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 un-reinforced sheet for detailing ▪ Moulded corner pieces ▪ Prefabricated corners ▪ Pipe flashings ▪ Sika-Trocal® Metal Sheet Type S ▪ Sika-Trocal® Cleaner 2000 ▪ Sika-Trocal® Cleaner L 100 ▪ Sika-Trocal® Welding Agent ▪ Sika-Trocal® C 733 (Contact adhesive)
Compatibility	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.

APPLICATION INFORMATION

Ambient air temperature	-15 °C min. / +60 °C max.
Substrate temperature	-25 °C min. / +60 °C max.

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

Installation

- Installation instructions: Sikaplan® U-type systems

IMPORTANT CONSIDERATIONS

Installation work must only be carried out by Sika

trained and approved contractors, experienced in this type of application.

- Roof construction and associated components must comply with national and local regulations.
- Ensure Sikaplan® U-15 Tex is prevented from direct contact with incompatible materials (refer to compatibility section)
- The use of Sikaplan® U-15 Tex membrane 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 are 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 welding overlap seams

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

Recommended type of equipment:

- Manual: Leister Triac PID
- Automatic : Leister Variamat

SUBSTRATE QUALITY

The supporting structure must be of sufficient structural strength to apply all new and existing layers of the roof build-up. 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. Sikaplan® U-15 Tex must be separated from any incompatible substrates / materials by an effective separation layer to prevent accelerated ageing. The supporting layer must be compatible with the membrane, solvent resistant, clean, dry and free of grease and dust.

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.

Fixing Methods

Loosely laid and mechanically fastened:

- The roof waterproofing sheet is installed by loose laying with mechanical fastening in seam overlaps or independent from overlaps.
- The membrane is mechanically fixed at the roof perimeter to resist to wind uplift.

Loosely laid and covered with ballast:

- The roof waterproofing membrane is installed by loose laying and covered with ballast according to the local wind load situation.
- If ballast weight is insufficient to restrain against wind uplift, the membrane may be fixed mechanically in the seam overlap or independent from the overlap.
- The membrane is mechanically fixed at the roof perimeter to keep the membrane in place.

Hot welding overlap seams

Overlap seams must be welded by electric hot welding equipment. 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 prior to welding. The effective width of welded overlaps by hot air must be minimum 20 mm.

Testing overlap seams

The seams must be mechanically tested with a screwdriver (rounded edges) to ensure the integrity/completion of the weld. Any imperfections must be rectified by hot air welding.

LOCAL RESTRICTIONS

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

PRODUCT DATA SHEET

Sikaplan® U-15 Tex
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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.

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