

# Sikaplan®-20 G

## Polymeric membrane for roof waterproofing

<b>Product Description</b>	Sikaplan®-20 G (thickness 2.0 mm) is a polyester reinforced multi-layer, synthetic roof waterproofing sheet based on premium-quality polyvinyl chloride (PVC) according to EN 13956.
<b>Uses</b>	Roof waterproofing membrane for exposed flat roofs: <ul style="list-style-type: none"><li>■ Loose laid and mechanically fastened</li></ul>
<b>Characteristics / Advantages</b>	<ul style="list-style-type: none"><li>■ Outstanding resistance to weathering, including permanent UV irradiation</li><li>■ High resistance to ageing</li><li>■ High resistance to hailstones</li><li>■ Resistant to all common environmental influences</li><li>■ High resistance to mechanical influences</li><li>■ High tensile strength</li><li>■ Excellent flexibility in cold temperatures</li><li>■ High water vapour permeability</li><li>■ Outstanding weldability</li><li>■ Recyclable</li></ul>
<b>Approval / Standards</b>	<ul style="list-style-type: none"><li>■ Polymeric sheets for roof waterproofing according to EN 13956, certified by notified body 1213-CPD-4125/4127 and provided with the CE-mark.</li><li>■ Reaction to fire according to EN 13501-1.</li><li>■ External fire performance tested according to ENV 1187 and classified according to EN 13501-5: BROOF(t1), BROOF(t3).</li><li>■ Official Quality Approvals and Agreement Certificates and approvals.</li><li>■ Monitoring and assessment by approved laboratories.</li><li>■ Quality Management system in accordance with EN ISO 9001/14001.</li><li>■ Production according to responsible Care policy of Chemical Industry.</li></ul>

Construction



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<b>Appearance / Colours</b>	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.	

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<b>Packaging</b>	Packing unit:	see price list
	Roll length:	15.00 m
	Roll width:	2.00 m
	Roll weight:	72.00 kg

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<b>Storage Conditions / Shelf-Life</b>	Rolls must be stored in a horizontal position on pallet and protected from direct sunlight, rain and snow. Product does not expire during correct storage.	
	Do not stack pallets of rolls during transport or storage.	

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## Technical Data

<b>Product Declaration</b>	EN 13956: 2005	
<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>Straightness</b>	≤ 30 mm	EN 1848-2
<b>Flatness</b>	≤ 10 mm	EN 1848-2
<b>Effective thickness</b>	2.0 mm (- 5 % / + 10 %)	EN 1849-2
<b>Mass per unit area</b>	2.4 kg/m <sup>2</sup> (- 5 % / + 10 %)	EN 1849-2
<b>Water tightness</b>	Pass	EN 1928
<b>Effects of liquid chemicals, including water</b>	On request	EN 1847
<b>External fire performance Part 1-4</b>	BROOF(t1) < 20° BROOF(t3) < 10°	EN 13501-5
<b>Reaction to fire</b>	Class E	EN ISO 11925-2, classification to EN 13501-1
<b>Hail resistance</b>		EN 13583
<b>rigid substrate</b>	≥ 20 m/s	
<b>flexible substrate</b>	≥ 36 m/s	
<b>Joint peel resistance</b>	≥ 300 N/50 mm	EN 12316-2
<b>Joint shear resistance</b>	≥ 600 N/50 mm	EN 12317-2
<b>Water vapour transmission properties</b>	μ = 20'000	EN 1931
<b>Tensile strength</b>		EN 12311-2
<b>longitudinal (md)<sup>1)</sup></b>	≥ 1000 N/50 mm	
<b>transversal (cmd)<sup>2)</sup></b>	≥ 900 N/50 mm	
<b>Elongation</b>		EN 12311-2
<b>longitudinal (md)<sup>1)</sup></b>	≥ 15 %	
<b>transversal (cmd)<sup>2)</sup></b>	≥ 15 %	
<b>Resistance to impact</b>		EN 12691
<b>hard substrate</b>	≥ 600 mm	
<b>soft substrate</b>	≥ 900 mm	
<b>Tear strength</b>		EN 12310-2
<b>longitudinal (md)<sup>1)</sup></b>	≥ 150 N	
<b>transversal (cmd)<sup>2)</sup></b>	≥ 150 N	
<b>Dimension stability</b>		EN 1107-2
<b>longitudinal (md)<sup>1)</sup></b>	≤  0.5  %	
<b>transversal (cmd)<sup>2)</sup></b>	≤  0.5  %	
<b>Foldability at low temperature</b>	≤ -25 °C	EN 495-5
<b>UV exposure</b>	Pass (> 5'000 h / grade 0)	EN 1297

<sup>1)</sup> md = machine direction

<sup>2)</sup> cmd = cross machine direction

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## System Information

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### System Structure

Ancillary products according to local price list:

- Sikaplan® -18 D, un-reinforced sheet for detailing
  - Moulded corner pieces, prefabricated corners and pipe flashings
  - Sika-Trocal® Metal Sheet Type S
  - Sika-Trocal® Cleaner 2000
  - Sika-Trocal® Cleaner L 100
  - Sika-Trocal® Welding Agent
  - Sika-Trocal® Seam Sealant
  - Sika-Trocal® C 733 (Contact adhesive)
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### Application Details

#### Substrate Quality

The substrate surface must be uniform, smooth and free of any sharp protrusions or burrs, etc.

Sikaplan® -20 G must be separated from any incompatible substrates by an effective separation layer to prevent accelerated ageing. Prevent direct contact with bitumen, tar, fat, oil, solvent containing materials and other plastic materials, e.g. expanded polystyrene (EPS), extruded polystyrene (XPS), polyurethane (PUR), polyisocyanurate (PIR) or phenolic foam (PF) as this could adversely affect the product properties.

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### Application Conditions / Limits

#### Temperature

The use of Sikaplan® -20 G membranes is limited to geographical locations with average monthly minimum temperatures of -25 °C.  
Permanent ambient temperature during use is limited to +50 °C.

#### Compatibility

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

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### Installation Instructions

#### Installation Method / Tools

Installation procedure:

According to the valid installation instructions for Sikaplan® -G -type system for mechanically fastened roofs.

Fixing Method:

Loosely laid and mechanically fastened.

The roof waterproofing sheet is installed by loose laying and mechanical fastening in seam overlaps or independent from overlaps.

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.

Recommended type of equipment: LEISTER TRIAC PID for manual welding and  
LEISTER VARIMAT for automatic 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 should be minimum 20 mm.

The seams must be mechanically tested with screw driver or steel needle 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.

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<b>Notes on Installation / Limits</b>	<p>Installation works must be carried out only by Sika instructed contractors for roofing.</p> <p>Temperature limits for the installation of the membrane:</p> <p>Substrate temperature: -25 °C min. / +60 °C max.          Ambient temperature: -15 °C min. / +60 °C max.</p> <p>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.</p> <p>Special measures may be compulsory for installation below +5 °C ambient temperature due to safety requirements in accordance with national regulations</p>
<b>Value Base</b>	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.
<b>Local Restrictions</b>	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.
<b>Ecology, Health and Safety Information</b>	A Safety Data Sheet following EC-Regulation 1907/2006, Article 31 is not needed to bring the product to the market, to transport or to use it. The product does not damage the environment when used as specified.
<b>REACH</b>	<p><b>European Community Regulation on chemicals and their safe use (REACH: EC 1907/2006)</b></p> <p>This product is an article within the meaning 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. Therefore, there are no registration requirements for substances in articles within the meaning of Article 7.1 of the Regulation.</p> <p>Based on our current knowledge, this product does not contain SVHC (substances of very high concern) from the candidate list published by the European Chemicals Agency in concentrations above 0.1 % (w/w).</p>
<b>Protective Measures</b>	Fresh air ventilation must be ensured, when working (welding) in closed rooms. Local safety regulations must be observed.
<b>Transportation Class</b>	The product is not classified as hazardous good for transport.
<b>Disposal</b>	The material is recyclable. Disposal must be according to local regulations. Please contact your local Sika sales organisation for more information.

**Legal note:** 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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