

## PRODUCT DATA SHEET

# Sikaplan® SGmA-20

Polymeric membrane for ballasted roof waterproofing

### PRODUCT DESCRIPTION

Sikaplan® SGmA-20 is a multi-layer, synthetic roof waterproofing sheet based on premium-quality polyvinyl chloride (PVC) with inlay of glass non-woven according to EN 13956.

### USES

Roof waterproofing membrane for roofs with ballast (e.g. gravel, concrete slabs, green roof (intensive, extensive), terraces with pedestrian traffic):

- Loose laid with ballast
- Green roofs
- Utility roofs

### CHARACTERISTICS / ADVANTAGES

- High dimensional stability due to glass fleece inlay
- High water vapour permeability
- Resistant to all common environmental influences
- Resistant to mechanical influences
- Resistant to micro-organisms
- Resistant to root penetration
- Hot air welding without use of open flames
- Specially formulated for below grade applications, including plaza decks, planters, foundations, balconies,
- terraces and split slab applications.
- Recyclable

### APPROVALS / STANDARDS

- Polymeric sheets for roof waterproofing according to EN 13956, certified by notified body 1213-CPD-4125 and provided with the CE marking.
- Reaction to fire according to EN 13501-1.
- Root penetration resistance tested according to FLL-Test Procedure.
- Official Quality Approvals and Agreement Certificates and approvals.
- Monitoring and assessment by approved laboratories.
- Quality Management system in accordance with EN ISO 9001/14001.
- Production according to Responsible Care policy of Chemical Industry.

### PRODUCT INFORMATION

|                            |                                                                     |                |
|----------------------------|---------------------------------------------------------------------|----------------|
| <b>Product Declaration</b> | EN 13956                                                            |                |
| <b>Packaging</b>           | Packing unit:                                                       | see price list |
|                            | Roll length:                                                        | 15.00 m        |
|                            | Roll width:                                                         | 2.00 m         |
|                            | Roll weight:                                                        | 75.00 kg       |
| <b>Shelf Life</b>          | 5 years from date of production in unopened, undamaged and original |                |

packaging.

|                            |                                                                                                                                                                                                                   |                     |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| <b>Storage Conditions</b>  | 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. |                     |
| <b>Appearance / Colour</b> | <b>Surface:</b>                                                                                                                                                                                                   | slightly structured |
|                            | <b>Colours:</b>                                                                                                                                                                                                   |                     |
|                            | <b>Top surface:</b>                                                                                                                                                                                               | beige               |
|                            | <b>Bottom surface:</b>                                                                                                                                                                                            | beige               |
| <b>Visible Defects</b>     | Pass                                                                                                                                                                                                              | (EN 1850-2)         |
| <b>Length</b>              | 15.00 m (- 0 % / + 5 %)                                                                                                                                                                                           | (EN 1848-2)         |
| <b>Width</b>               | 2.0 m (- 0.5 % / + 1 %)                                                                                                                                                                                           | (EN 1848-2)         |
| <b>Effective Thickness</b> | 2.0 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)         |

## SYSTEM INFORMATION

|                                                               |                                                                                                                                                         |                         |              |
|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|--------------|
| <b>Compatibility</b>                                          | 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. |                         |              |
| <b>Resistance to Impact</b>                                   | hard substrate                                                                                                                                          | ≥ 1000 mm               | (EN 12691)   |
|                                                               | soft substrate                                                                                                                                          | ≥ 1250 mm               |              |
| <b>Resistance to Static Load</b>                              | soft substrate                                                                                                                                          | ≥ 20 kg                 | (EN 12730)   |
|                                                               | rigid substrate                                                                                                                                         | ≥ 20 kg                 |              |
| <b>Resistance to Root Penetration</b>                         | Pass                                                                                                                                                    |                         | (EN 13948)   |
| <b>Tensile Strength</b>                                       | longitudinal (md) <sup>1)</sup>                                                                                                                         | ≥ 9.5 N/mm <sup>2</sup> | (EN 12311-2) |
|                                                               | transversal (cmd) <sup>2)</sup>                                                                                                                         | ≥ 8.5 N/mm <sup>2</sup> |              |
| 1) md = machine direction<br>2) cmd = cross machine direction |                                                                                                                                                         |                         |              |
| <b>Elongation</b>                                             | longitudinal (md) <sup>1)</sup>                                                                                                                         | ≥ 200 %                 | (EN 12311-2) |
|                                                               | transversal (cmd) <sup>2)</sup>                                                                                                                         | ≥ 200 %                 |              |
| 1) md = machine direction<br>2) cmd = cross machine direction |                                                                                                                                                         |                         |              |
| <b>Joint Shear Resistance</b>                                 | ≥ 500 N/50 mm                                                                                                                                           |                         | (EN 12317-2) |
| <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<br>2) cmd = cross machine direction |                                                                                                                                                         |                         |              |
| <b>Foldability at Low Temperature</b>                         | ≤ -25 °C                                                                                                                                                |                         | (EN 495-5)   |
| <b>Water Tightness</b>                                        | Pass                                                                                                                                                    |                         | (EN 1928)    |
| <b>Water Vapour Transimission</b>                             | μ = 20 000                                                                                                                                              |                         | (EN 1931)    |
| <b>Effect of Liquid Chemicals, Including Water</b>            | On request                                                                                                                                              |                         | (EN 1847)    |
| <b>UV Exposure</b>                                            | Not applicable for permanent exposure to UV irradiation.                                                                                                |                         |              |

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## APPLICATION INFORMATION

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

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## VALUE BASE

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.

## LIMITATIONS

### Geographical / Climate

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

## 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).

## SUBSTRATE QUALITY

The substrate surface must be uniform, smooth and free of any sharp protrusions or burrs, etc. Sikaplan® SGmA-20 must be separated from any incompatible substrates by an effective separation layer to prevent accelerated ageing.

## APPLICATION METHOD / TOOLS

### Installation procedure:

According to the valid installation instructions of manufacturer for Sikaplan® SGmA-types for ballasted roof system.

### Fixing Method:

Loosely laid and covered with ballast. Mechanical fixing at the roof perimeter is recommended to keep membrane in place.

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

### 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.

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 works. The effective width of welded overlaps should be minimum 20 mm.

## APPLICATION

Installation works must be carried out only by Sika instructed contractors for roofing.

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.

## 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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