

PRODUCT DATA SHEET

Sarnafil® TG 66-18 AP

POLYMERIC FPO MEMBRANE FOR BALLASTED ROOF WATERPROOFING

DESCRIPTION

Sarnafil® TG 66-18 AP (thickness 1.8mm) is a multi-layer, synthetic roof waterproofing sheet based on premium-quality flexible polyolefins (FPO), containing stabilizers, with inlay of glass non-woven according to EN 13956.

Sarnafil® TG 66-18 AP is a 66-18 AP (thickness hot air weldable, UV-resistant roof membrane, designed to use in all global climatic conditions.

USES

Waterproofing membrane for:

- Roofs fully adhered with Sarnacol® 2152 or loosely laid with ballast (e.g. gravel roofs, green roofs, utility roofs, inverted roofs)

FEATURES

- Resistant to permanent UV exposure
- High dimensional stability due to glass fleece inlay
- Resistant to all common environmental influence
- Resistant to mechanical influences
- Resistant to micro-organisms
- Resistant to root penetration
- Compatible to old bitumen
- Hot air welding, no open flame equipment required

SUSTAINABILITY

- 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
- Contributes towards satisfying Sustainable Sites (SS) Credit: Heat Island Reduction under LEED® v4

CERTIFICATES AND TEST REPORTS

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

PRODUCT INFORMATION

Composition	Flexible polyolefins (FPO).	
Packaging	Sarnafil® TG 66-18 AP standard rolls are wrapped individually in a yellow PE-foil.	
	Packing unit:	see price list
	Roll length:	15.00 m
	Roll width:	2.00 m
	Roll weight:	55.20 kg
Appearance and colour	Surface:	matt
	Colours:	
	Top surface:	white
	Bottom surface:	black
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 +30 °C. Always refer to packaging.	
Product declaration	EN 13956 - Polymeric sheets for roof waterproofing.	
Visible defects	Pass	(EN 1850-2)
Length	15 m (-0 % / +5 %)	(EN 1848-2)
Width	2 m (-0.5 % / +1 %)	(EN 1848-2)
Effective thickness	1.8 mm (-5 % / +10 %)	(EN 1849-2)
Straightness	≤ 30 mm	(EN 1848-2)
Flatness	≤ 10 mm	(EN 1848-2)
Mass per area	1.8 kg/m ² (-5 % / +10 %)	(EN 1849-2)

TECHNICAL INFORMATION

Resistance to impact	hard substrate	≥ 800 mm	(EN 12691)
	soft substrate	≥ 1000 mm	
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⁾	≥ 6 N/mm ²	(EN 12311-2)
	transversal (cmd) ²⁾	≥ 6 N/mm ²	
	¹⁾ md = machine direction ²⁾ cmd = cross machine direction		
Elongation	longitudinal (md) ¹⁾	≥ 500 %	(EN 12311-2)
	transversal (cmd) ²⁾	≥ 500 %	
	¹⁾ md = machine direction ²⁾ cmd = cross machine direction		
Dimensional stability	longitudinal (md) ¹⁾	≤ 0.3 %	(EN 1107-2)
	transversal (cmd) ²⁾	≤ 0.2 %	
	¹⁾ md = machine direction ²⁾ cmd = cross machine direction		
Joint shear resistance	≥ 400 N/50 mm		(EN 12317-2)

Foldability at low temperature	≤ -40 °C	(EN 495-5)
Reaction to fire	Class E	(EN ISO 11925-2, classification to EN 13501-1)
Effect of liquid chemicals, including water	On request	(EN 1847)
Exposure to bitumen	Pass ³⁾ <small>³⁾ Sikaplan® TB is compatible to old bitumen</small>	(EN 1548)
Resistance to UV exposure	Pass (> 5 000 h / grade 0)	(EN 1297)
Water-vapour transmission rate	μ = 190 000	(EN 1931)
Watertightness	Pass	(EN 1928)

APPLICATION INFORMATION

Ambient air temperature	-20 °C min. / +60 °C max.
Substrate temperature	-30 °C min. / +60 °C max.

SYSTEM INFORMATION

System structure	<p>Wide range of accessories is available e.g. prefabricated parts, roof drains, scuppers, protection sheets and separation layers.</p> <p>The following accessories shall be used:</p> <ul style="list-style-type: none"> ▪ Sarnafil® T 66-15 D Sheet for detailing ▪ Sikaplan® T Metal Sheet ▪ Sarnabar or S U-bar ▪ Sarnafil® T Welding Cord ▪ Sarnafil® T Prep / Sikaplan® T Wet Task Set ▪ Sarnacol® T-660 ▪ Solvent T-660 ▪ Sarnafil® T Clean
Compatibility	<p>Sarnafil® TG 66-18 AP may be installed on all thermal insulations and leveling layers suitable for roofing. No additional separation layer is required. Sarnafil® TG 66-18 AP is suitable for installation directly on top of existing, care- fully cleaned, level bituminous roofing, e.g. re-roofing over old flat roofs. Colour changes in membrane surface may occur in case of direct contact with bitumen.</p> <p>In case of existing roof build-up needs to be removed, Sarnafil® TG 66-18 AP can be adhered directly on to the bituminous vapour control layer for partitioning and protection of the day work.</p>

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.

IMPORTANT CONSIDERATIONS

Geographical / Climate

The use of Sarnafil® TG 66-18 AP membrane is limited to geographical locations with average monthly minimum temperatures of -50 °C. Permanent ambient temperature during use is limited to +50 °C.

ECOLOGY, HEALTH AND SAFETY

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).

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

The substrate surface must be uniform, smooth and free of any sharp protrusions or burrs, etc.
The supporting layer must be compatible to the membrane, solvent resistant, clean, dry and free of grease and dust. Metal sheets must be degreased with Sika-plan® Cleaner before adhesive is applied.

APPLICATION METHOD / TOOLS

Installation procedure:

According to the valid installation instructions of manufacturer for Sarnafil® TG 66-18 AP types system for ballasted or fully adhered roofs.

Fixing Method:

Roof waterproofing membranes can be installed either loose-laid or fully adhered using Sarnacol® 2152, then covered with ballast (e.g., green roof, screed, pavers) in accordance with local wind load requirements. For full adhesion, the membrane's backside must be flamed to activate the surface and ensure a strong bond between the adhesive and the membrane. For detailed instructions, please contact the Sika Technical Department.

Adhered roof junction areas and flashings:

Sarnafil® TG 66-18 AP is adhered to substrate layers such as reinforced concrete rendering, timber panels, metal sheets, etc. by contact adhesive Sarnacol® T 660. Seam overlaps are welded by hot air.

Welding Method:

In case of slightly soiled membrane surface the seams of Sarnafil® TG 66-18 AP have to be prepared by using Sarnafil® T Prep. However it is recommended to use Sarnafil® T Prep prior to hot air welding. Overlap seams are welded by electric hot air welding equipment, such as manual hot air welding machines and pressure rollers or automatic hot air welding machines with controlled hot air temperature.

Recommended type of equipment:

- Manual Leister Triac
- Automatic Varimat or UniRoof

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 by hot air should be minimum 20 mm.

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

APPLICATION

Installation works must be carried out only by Sika instructed contractors for roofing. Installation of some ancillary products, e.g. contact adhesives / cleaners is limited to temperatures above +5 °C. Please observe information given by 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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