

## PRODUCT DATA SHEET

# Sarnafil® TG 66-15

Polymeric membrane for ballasted roof waterproofing

### DESCRIPTION

Sarnafil® TG 66-15 is a multi-layer, synthetic roof waterproofing sheet based on flexible polyolefins (FPO), with an inlay of glass non-woven according to EN 13956. Sarnafil® TG 66-15 is a hot air weldable, UV-resistant roof membrane, designed for use in all global climatic conditions. Thickness 1,5mm.

### USES

Sarnafil® TG 66-15 may only be used by experienced professionals.

Waterproofing membrane for:

- Loosely laid, exposed roofs
- Ballasted roofs with different ballast materials, Green roofs, Utility roofs, Inverted roofs
- Junctions and flashings on all types of Sarnafil® TG 66, TS 77 and TG 76 Felt waterproofing systems

### CHARACTERISTICS / ADVANTAGES

- Proven performance over decades
- Resistant to micro-organisms
- Resistant to root penetration
- High dimensional stability from glass fleece inlay
- Compatible with old bitumen
- Resistant to permanent UV exposure
- Resistant against impact load and hail
- Resistant to all common environmental influences
- Resistant to mechanical influences
- 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
- BRE Environmental Product Declaration (EPD)

### APPROVALS / STANDARDS

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

## PRODUCT INFORMATION

<b>Product Declaration</b>	EN 13956: Polymeric sheets for roof waterproofing	
<b>Chemical base</b>	Flexible polyolefins (FPO)	
<b>Packaging</b>	Standard rolls are wrapped individually in a blue PE-foil.	
	Roll length	20,00 m
	Roll width	2,00 m
	Roll weight	60,00 kg
	Refer to current price list for packaging variations.	
<b>Shelf life</b>	5 years from date of production.	
<b>Storage conditions</b>	Product must be stored in original unopened and undamaged sealed packaging in dry conditions and temperatures between +5 °C and +30 °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 packaging.	
<b>Appearance / Colour</b>	Surface	matt
	<b>Colours</b>	
	Top surface	beige grey (nearest RAL 7040)
	Bottom surface	black
	Top surface in other colours available on request, subject to minimum order quantities.	
<b>Visible Defects</b>	Pass	(EN 1850-2)
<b>Length</b>	20 m (-0 % / +5 %)	(EN 1848-2)
<b>Width</b>	2 m (-0,5 % / +1 %)	(EN 1848-2)
<b>Effective Thickness</b>	1,5 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>	1,36 kg/m <sup>2</sup> (-5 % / +10 %)	(EN 1849-2)

## SYSTEM INFORMATION

<b>System Structure</b>	<p>The following products must be considered for use depending on roof design:</p> <ul style="list-style-type: none"><li>▪ Sarnafil® T 66-15 D Sheet for detailing</li><li>▪ Sarnafil® T Metal Sheet</li><li>▪ Sarnabar</li><li>▪ Sarnafil® T Welding Cord</li><li>▪ Sarnafil® T Prep / Sarnafil® T Wet Task Set</li><li>▪ Sarnacol® T 660</li><li>▪ Solvent T 660</li><li>▪ Sarnafil® T Clean</li></ul> <p>Ancillary Products: Prefabricated parts, roof drains, scuppers, Protection sheets and separation layers.</p>
<b>Compatibility</b>	<p>Sarnafil® TG 66-15 can be installed on all thermal insulation types and levelling layers suitable for roofing. No additional separation layer is required. Sarnafil® TG 66-15 is suitable for installation directly on top of existing, clean, level bituminous roofing, e.g. re-roofing over old flat roofs. Discolouration of the membrane surface may occur if in direct contact with bitumen.</p>

## TECHNICAL INFORMATION

<b>Resistance to Impact</b>	<u>hard substrate</u>	<u>≥ 800 mm</u>	(EN 12691)
	<u>soft substrate</u>	<u>≥ 1000 mm</u>	
<b>Resistance to Static Load</b>	<u>soft substrate</u>	<u>≥ 20 kg</u>	(EN 12730)
	<u>rigid substrate</u>	<u>≥ 20 kg</u>	
<b>Resistance to Root Penetration</b>	Pass		(EN 13948)
<b>Tensile Strength</b>	<u>longitudinal (md)<sup>1)</sup></u>	<u>≥ 9 N/mm<sup>2</sup></u>	(EN 12311-2)
	<u>transversal (cmd)<sup>2)</sup></u>	<u>≥ 7 N/mm<sup>2</sup></u>	
	<small><sup>1)</sup> md = machine direction <sup>2)</sup> cmd = cross machine direction</small>		
<b>Elongation</b>	<u>longitudinal (md)<sup>1)</sup></u>	<u>≥ 550 %</u>	(EN 12311-2)
	<u>transversal (cmd)<sup>2)</sup></u>	<u>≥ 550 %</u>	
	<small><sup>1)</sup> md = machine direction <sup>2)</sup> cmd = cross machine direction</small>		
<b>Joint Shear Resistance</b>	≥ 500 N/50 mm		(EN 12317-2)
<b>Dimensional Stability</b>	<u>longitudinal (md)<sup>1)</sup></u>	<u>≤  0,2  %</u>	(EN 1107-2)
	<u>transversal (cmd)<sup>2)</sup></u>	<u>≤  0,1  %</u>	
	<small><sup>1)</sup> md = machine direction <sup>2)</sup> cmd = cross machine direction</small>		
<b>Foldability at Low Temperature</b>	≤ -45 °C		(EN 495-5)
<b>Watertightness</b>	Pass		(EN 1928)
<b>Water Vapour Transmission</b>	μ = 190'000		(EN 1931)
<b>Exposure to Bitumen</b>	Pass <sup>3)</sup>		(EN 1548)
	<small><sup>3)</sup> Sarnafil® T is compatible to old bitumen</small>		
<b>Effect of Liquid Chemicals, Including Water</b>	Resistant to many chemicals. Contact Sika Technical Services for additional information.		
<b>Resistance to UV Exposure</b>	Pass (> 5000 h / grade 0)		(EN 1297)
<b>Reaction to Fire</b>	Class E		(EN ISO 11925-2, classification to EN 13501-1)

## APPLICATION INFORMATION

<b>Ambient Air Temperature</b>	-20 °C min. / +60 °C max.
<b>Substrate Temperature</b>	-30 °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 DOCUMENTS

### Installation

- Application Manual

## IMPORTANT CONSIDERATION

Installation work must only be carried out by Sika® trained and approved contractors, experienced in this

type of application.

- Ensure Sarnafil® TG 66-15 is prevented from direct contact with incompatible materials (refer to compatibility section)
- The use of Sarnafil® TG 66-15 membrane is limited to geographical locations with average monthly minimum temperatures of - 50 °C. Permanent ambient temperature during use is limited to + 50°C
- The use of some ancillary products such as adhesives, cleaners and solvents is 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 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 or automatic hot air welding machines with controlled hot air temperature capability of a minimum +600 °C.

Recommended type of equipment:

- Manual: Leister Triac
- Automatic : Sarnamatic 681
- Semi-automatic: Leister Triac Drive

### SUBSTRATE QUALITY

The substrate surface must be uniform, smooth and free of any sharp protrusions or burrs, etc. Sarnafil® TG 66-15 must be separated from any incompatible substrates / materials by an effective separation layer to prevent accelerated ageing. The supporting layer must be compatible to the membrane, solvent resistant, clean, dry and free of grease and dust.

### APPLICATION

#### 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 method

The roof waterproofing membrane is installed by loose laying and covered with the appropriate roof material according to the roof design and the local wind loading conditions. Mechanical fixing along the roof perimeter with Sarnabar® including S-Welding Cord must be used to keep membrane in place.

#### Fully bonded roof junctions and flashings

The membrane is bonded to the substrate and flashing by using Sarnacol® T 660 contact adhesive. Refer to

Product Data Sheet.

#### 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 screw-driver or steel needle 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.

## 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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### Product Data Sheet

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