Roofing
Product Data Sheet
Edition 02.2013
Identification no: 02 09 10 03 200 0 150000
Version no. 05

Construction

Sarnafil® TG 66-15

Polymeric membrane for roof waterproofing

Product Description

Sarnafil® TG 66-15 (thickness 1.5 mm) 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 66-15 is a hot air weldable, UV-resistant roof membrane, designed to use in all global climatic conditions. Sarnafil® TG 66-15 is produced with an inlay of glass non-woven for dimensional stability. Sarnafil® TG 66-15 is the Sarnafil® roof membrane used with the loose-laid ballasted systems and for detail work.

Sarnafil® TG 66-15 has no built-in stress at the time of production and has a fully encapsulated carrier with no risk to delamination or water-wicking. The dimensional stability of Sarnafil® TG 66-15 is excellent.

Uses

Roof waterproofing membrane for roofs with ballast (e.g. gravel, concrete slabs, green roof) and / or exposed flat roofs:

- Loosely laid and Ballasted roofs
- Green roofs
- Utility roofs
- Inverted roofs
- Roof waterproofing membrane for exposed roof junction zones:
  - Roof waterproofing for junctions and flashings, e.g. wall and parapet junctions, roof lights, etc., which are permanently exposed in installations of Sarnafil® TG 66-15 roof waterproofing systems with ballast.
  - Roof waterproofing for junctions and flashings in installations of all types of Sarnafil® TS 77 and TG 76 Felt exposed roof waterproofing systems.

Characteristics / Advantages

- Outstanding resistance to weathering, including permanent UV irradiation
- Excellent flexibility in cold temperatures
- Resistant to micro-organisms
- No built-in stress at the time of production
- High dimensional stability
- High resistance against impact load
- Excellent weldability
- No risk of delamination or water-wicking
- Compatible to old bitumen
- Recyclable

Approval / Standards

Sarnafil® TG 66-15 is designed and manufactured to meet most international recognised standards.

- Polymeric sheets for roof waterproofing according to EN 13956, certified by notified body 1213-CPD-3914 and provided with the CE-mark.
- Reaction to fire according to EN 13501-1.
- Official Quality Approvals and Agrement Certificates and approvals.
- Monitoring and assessment by approved laboratories.
- Quality Management system in accordance with EN ISO 9001/14001.
- Root penetration resistance tested according to FLL-Test Procedure.

Appearance / Colours	Surface:	matt
	Colours:	
	Top surface:	beige grey (nearest RAL 7040)
	Bottom surface:	black
Packaging	Sarnafil® TG 66-15 standard rolls are wrapped individually in a blue PE-foil.	
	Packing unit:	see price list
	Roll length:	20.00 m
	Roll width:	2.00 m
	Roll weight:	60.00 kg
Storage Conditions / Shelf-Life	Rolls must be stored in a horizontal position on pallet and protected from direct sunlight, rain and snow. Product does not expire if correctly stored.	
	Do not stack pallets of rolls during transport or storage.	

Technical Data

Product Declaration	EN 13956	
Visible defects	Pass	EN 1850-2
Length	20 m (-0 % / +5 %)	EN 1848-2
Width	2 m (-0.5 % / +1 %)	EN 1848-2
Straightness	≤ 30 mm	EN 1848-2
Flatness	≤ 10 mm	EN 1848-2
Effective thickness	1.5 mm (-5 % / +10 %)	EN 1849-2
Mass per unit area	1.5 kg/m² (-5 % / +10 %)	EN 1849-2
Water tightness	Pass	EN 1928
Effects of liquid chemicals, including water	On request	EN 1847
Reaction to fire	E	EN ISO 11925-2, classification to EN 13501-1
Joint shear resistance	≥ 500 N/50 mm	EN 12317-2
Water vapour transmission properties	μ = 150'000	EN 1931
Tensile stress		EN 12311-2
longitudinal (md)[1)]	≥ 9 N/mm²	
transversal (cmd)[2)]	≥ 7 N/mm²	
Elongation		EN 12311-2
longitudinal (md)[1)]	≥ 550 %	
transversal (cmd)[2)]	≥ 550 %	
Resistance to impact		EN 12691
hard substrate	≥ 800 mm	
soft substrate	≥ 1000 mm	
Resistance to static load		EN 12730
soft substrate	≥ 20 kg	
rigid substrate	≥ 20 kg	
Resistance to root penetration	Pass	EN 13948
Dimension stability		EN 1107-2
longitudinal (md)[1)]	≤ |0.2| %	
transversal (cmd)[2)]	≤ |0.1| %	
Foldability at low temperature	≤ - 45°C	EN 495-5
UV exposure	Pass (> 5000 h / grade 0)	EN 1297
Exposure to bitumen[3)]	Pass	EN 1548

[1)] md = machine direction
[2)] cmd = cross machine direction

[3)] Sarnafil® T is compatible to old bitumen

System Information

System Structure	Wide range of accessories is available e.g. prefabricated parts, roof drains, scuppers, protection sheets and separation layers. The following materials are strongly recommended: Sarnafil® T 66-15 D Sheet for detailing Sarnafil® T Metal Sheet Sarnabar Sarnafil® T Welding Cord Sarnafil® T Prep / Sarnafil® T Wet Task Set Sarnacol® T 660 Solvent T 660 Sarnafil® T Clean

Application Details

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 Sarnafil® Cleaner before adhesive is applied.

Application Conditions / Limits

Temperature	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.
Compatibility	Sarnafil® TG 66-15 may be installed on all thermal insulations and levelling layers suitable for roofing. No additional separation layer is required. Probably a fire protection layer is necessary. Sarnafil® TG 66-15 is suitable for installation directly on top of existing, carefully 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. In case of existing roof build up needs to be removed, Sarnafil® TG 66-15 can be adhered directly on to the bituminous vapour control layer for partitioning and protection of the day work.

Installation Instructions

Installation Method / Tools

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

Fixing Method:
Loosely laid and covered with ballast. Mechanical fixing at the roof perimeter with Sarnabar including Sarnafil® T Welding Cord is obligatory to keep membrane in place.
Roof waterproofing membrane is installed by loose laid and covered with ballast according to local wind load situation.

Adhered roof junction areas and flashings:
Sarnafil® TG 66-15 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:
Before welding the seams are prepared with Sarnafil® T Prep. 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: Leister Triac PID for manual welding
Sarnamatic 661^{plus} 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 by hot air should be minimum 20 mm.

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

Notes on Installation / Limits

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

Temperature limits for the installation of the membrane:

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

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.

Construction

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.
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.
Ecology, Health and Safety Information	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.
REACH	**European Community Regulation on chemicals and their safe use (REACH: EC 1907/2006)** 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. 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).
Protective Measures	Fresh air ventilation must be ensured, when working (welding) in closed rooms. Local safety regulations must be observed.
Transportation Class	The product is not classified as hazardous good for transport.
Disposal	The material is recyclable. Disposal must be according to local regulations. Please contact your local Sika sales organisation for more information.

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