BUILDING TRUST

PRODUCT DATA SHEET

Sarnafil® TG 66-20

POLYMERIC MEMBRANE FOR BALLASTED ROOF WATERPROOFING

CE

DESCRIPTION

Sarnafil® TG 66-20 (thickness 2.0 mm) is a multi-layer, synthetic roof waterproofing sheet based on premium-quality flexible polyolefins (FPO), with inlay of glass non-woven according to EN 13956.
Sarnafil® TG 66-20 is a hot air weldable, UV-resistant roof membrane.
Suitable for use in hot and tropical climatic conditions.

USES

Roof waterproofing membrane for roofs with ballast (example 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, example wall and parapet junctions, roof lights, etc., which are permanently exposed in installations of Sarnafil® TG 66-20 roof waterproofing systems with ballast.
- Roof waterproofing for junctions and flashings in installations of all types of Sarnafil® TG 66-20 and TG 76 Felt exposed roof waterproofing systems.

CHARACTERISTICS / ADVANTAGES

- Proven performance over decades
- Resistant to micro-organisms
- Resistant to root penetration
- High dimensional stability due to glass fleece inlay
- Compatible to bitumen
- Resistant to permanent UV exposure
- Resistant against impact load and hail
- Resistant to all common environmental influences
- Resistant to mechanical influences
- Hot air welding without use of open flame
- Recyclable

APPROVALS / CERTIFICATES

Sarnafil® TG 66-20 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
- Root penetration resistance tested according to FLL-Test Procedure

PRODUCT INFORMATION

Packaging	Sarnafil® TG 66-20 standard rolls are wrapped individually in a blue PE-foil.		
	Packing unit	See price list	
	Roll length	15.00 m	
	Roll width	2.00 m	
	Roll weight	60.00 kg	
Appearance / Colour	Surface	Matt	
	Colours		
	Top surface	Beige Grey (nearest RAL 7040)	
	Bottom surface	Black	
Shelf life	5 years from date of production in unopened, undamaged and original packaging.		
Storage conditions	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.		
Product Declaration	EN 13956		
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	2.0 mm (-5 % / +10 %)		(EN 1849-2)
Straightness	≤ 30 mm		(EN 1848-2)
Flatness	≤ 10 mm		(EN 1848-2)
Mass per unit area	2.0 kg/m² (-5 % / +10 %)		(EN 1849-2)

TECHNICAL INFORMATION

Resistance to Impact	Hard substrate	≥ 1250 mm	(EN 12691)
	Soft substrate	≥ 1500 mm	
Hail Resistance	Rigid substrate	≥ 30 m/s	(EN 13583)
	Flexible substrate	≥ 40 m/s	
Resistance to Static Load	Soft substrate	≥ 20 kg	(EN 12730)
	Rigid substrate	≥ 20 kg	
Resistance to Root Penetration	Pass		(EN 13948)
Tensile Strength	Longitudinal (md)[1)]	≥ 9 N/mm²	(EN 12311-2)
	Transversal (cmd)[2)]	≥ 7 N/mm²	
	[1)] md = machine direction [2)] cmd = cross machine direction		
Elongation	Longitudinal (md)[1)]	≥ 550 %	(EN 12311-2)
	Transversal (cmd)[2)]	≥ 550 %	
	[1)] md = machine direction [2)] cmd = cross machine direction		
Dimensional Stability	Longitudinal (md)[1)]	≤ 0.2 %	(EN 1107-2)
	Transversal (cmd)[2)]	≤ 0.1 %	
	[1)] md = machine direction [2)] cmd = cross machine direction		

Joint Shear Resistance	≥ 500 N/50 mm	(EN 12317-2)
Foldability at Low Temperature	≤ -45 °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] [3] Sarnafil® T is compatible to old bitumen.	(EN 1548)
Resistance to UV Exposure	Pass (> 5000 h / grade 0)	(EN 1297)
Water Vapour Transmission	μ = 150 000	(EN 1931)
Watertightness	Pass	(EN 1928)

SYSTEMS

System Structure	Wide range of accessories is available e.g. prefabricated parts, roof drains, scuppers, protection sheets and separation layers. **The following accessories shall be used:** ▪ Sarnafil® T 66-15 D Sheet for detailing ▪ Sarnafil® T Metal Sheet ▪ Sarnabar ▪ Sarnafil® T Welding Cord ▪ Sarnafil® T Prep ▪ Sarnacol® T 660 ▪ Sarnafil® T Clean
Compatibility	Sarnafil® TG 66-20 may be installed on all thermal insulations and levelling layers suitable for roofing. No additional separation layer is required. Sarnafil® TG 66-20 is suitable for installation directly on top of existing, carefully cleaned, level bituminous roofing, example re-roofing over old flat roofs. Colour changes in membrane surface may occur in case of direct contact with bitumen.

APPLICATION INFORMATION

Ambient Air Temperature	-20 °C min. / +60 °C max.
Substrate Temperature	-30 °C min. / +60 °C max.

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 Sarnafil® Cleaner before adhesive is applied.

APPLICATION

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

Installation of some ancillary products, example 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.

APPLICATION 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 66-20 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} / 681 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.

IMPORTANT CONSIDERATIONS

Geographical / Climate

Permanent ambient temperature during use is limited to +50 °C.

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

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)

LEGAL NOTES

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ISO 9001 - ISO 14001 OHSAS 18001

ISO 9001: Sika UAE LLC, Sika Gulf B.S.C. (c), Sika Saudi Arabia Co. Ltd, Sika Qatar LLC
ISO 14001: Sika UAE LLC, Sika Gulf B.S.C. (c), Sika Saudi Arabia Co. Ltd
OHSAS: Sika UAE LLC, Sika Gulf B.S.C. (c)

All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.