

PRODUCT DATA SHEET

Sarnafil® G 476-20

Polymeric Membrane for ballasted Roof Waterproofing

DESCRIPTION

Sarnafil® G 476-20 (thickness 2.0 mm) 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. Sarnafil® G 476-20 is a hot air weldable roof membrane, formulated and designed to use in all global climatic conditions.

USES

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

- Green roofs
- Utility roofs
- Inverted roofs

CHARACTERISTICS / ADVANTAGES

- Specially formulated for below grade applications, including plaza decks, planters, foundations, balconies, terraces and split slab applications
- Proven performance over decades
- 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
- Recyclable

APPROVALS / STANDARDS

Sarnafil® G 476-20 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-5107 and provided with the CE marking.
- Reaction to fire according to EN 13501-1.
- Official Quality Approvals and Agreement Certificates and approvals.
- Monitoring and assessment by approved laboratories.
- Quality Management system in accordance with EN ISO 9001/1400.

PRODUCT INFORMATION

Product Declaration	EN 13956	
Packaging	Packaging unit:	see price list
	Roll length:	15.00 m
	Roll width:	2.00 m
	Roll weight:	72.00 kg
Shelf Life	Product does not expire if correctly stored.	

Storage Conditions	Rolls must be stored in a horizontal position on pallet and protected from direct sunlight, rain and snow. Do not stack pallets of rolls during transport or storage.	
Appearance / Colour	Surface:	slightly structured
	Colour top surface:	red
	Colour bottom surface:	dark grey
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	2.4 kg/m ² (-5 % / +10 %)	(EN 1848-2)

SYSTEM INFORMATION

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® G 410-15 Sheet for detailing ▪ Sarnafil® Metal Sheet ▪ Sarnabar ▪ S Welding Cord ▪ Sarna Seam Cleaner ▪ Sarna Cleaner ▪ S Felt	
Compatibility	Not compatible with direct contact to other plastics, e.g. EPS, XPS, PUR, PIR or PF. Not resistant to tar, bitumen, oil and solvent containing materials.	

TECHNICAL INFORMATION

Resistance to Impact	hard substrate	≥ 700 mm	(EN 12691)
	soft substrate	≥ 1250 mm	
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⁾	≥ 10.0 N/mm ²	(EN 12311-2)
	transversal (cmd) ²⁾	≥ 9.0 N/mm ²	
¹⁾ md = machine direction ²⁾ cmd = cross machine direction			
Elongation	longitudinal (md) ¹⁾	≥ 240 %	(EN 12311-2)
	transversal (cmd) ²⁾	≥ 230 %	
¹⁾ md = machine direction ²⁾ cmd = cross machine direction			
Joint Shear Resistance	≥ 600 N/50 mm		(EN 12317-2)

Dimensional Stability	longitudinal (md) ¹⁾	≤ 0.2 %	(EN 1107-2)
	transversal (cmd) ²⁾	≤ 0.1 %	
	¹⁾ md = machine direction ²⁾ cmd = cross machine direction		
Foldability at Low Temperature	≤ -25 °C		(EN 495-5)
Water Tightness	Pass		(EN 1928)
Water Vapour Transimission	μ = 15 000		(EN 1931)
Effect of Liquid Chemicals, Including Water	On request		(EN 1847)
Resistance to UV Exposure	not resistant for permanent exposure to UV irradiation.		
Reaction to Fire	Class E		(EN ISO 11925-2, classification to EN 13501-1)

APPLICATION INFORMATION

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

LIMITATIONS

Geographical / Climate

The use of Sarnafil® G 476-20 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 solvent resistant, clean, dry and free of grease and dust. Metal sheets must be degreased with Sarna Cleaner before adhesive is applied.

APPLICATION METHOD / TOOLS

Installation procedure:

According to the valid installation instructions for Sarnafil® G 476-types system for ballasted roofs.

Fixing Method:

Unroll Sarnafil® G 476-20 flat without waves or creases and position to overlap by 80 mm. The overlapped sheets must be welded immediately (on the same working day) and the loose laid Sarnafil® G 476-20 membrane ballasted as soon as possible.

Flat roofs with pedestrian walkway:

- A protective layer must be installed on top of the Sarnafil® G 476-20 membrane (e.g. Sarnafil® Protective Sheet or S Felt Type GK).
- The wear surface (composite slabs, concrete slabs or similar) must be installed on top of a drainage layer (chippings, elevated bed or similar).

Welding Method:

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 661plus / 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 over-

laps 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.

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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