

PRODUCT DATA SHEET

Sarnafil® G 476-15

POLYMERIC MEMBRANE FOR ROOF WATERPROOFING

DESCRIPTION

Sarnafil® G 476-15 is a multi-layer, synthetic roof waterproofing membrane based on premium-quality-polyvinyl chloride (PVC) with an inlay of non-woven glassfiber .

USES

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

- Green roof
- Utility roof
- Inverted roof

CHARACTERISTICS / ADVANTAGES

- Outstanding root resistance
- Excellent weldability
- Good flexibility in cold temperatures
- Excellent dimensional stability
- Good tensile and tearing strength
- High resistance to mechanical impact
- High water vapour permeability
- Recyclable (Delete if recycling facilities or recycling offerings for roofing membranes are not available in local country)

APPROVALS / CERTIFICATES

Sarnafil® G 476-15 is designed and manufactured to meet most international recognised standards.

- Polymeric PVC sheets for waterproofing according to GB12952, Type G
- Polymeric sheets for roof waterproofing according to EN 13956
- Official quality approvals and agreement certificates and approvals
- Monitoring and assessment by approved laboratories

PRODUCT INFORMATION

Composition	Polyvinyl Chloride (PVC)	
Packaging	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:	70,00 kg
Appearance / Colour	Top Surface:	orange
	Bottom surface:	dark grey
Shelf life	5 years from date of production.	
Storage conditions	Product must be stored in original unopened and undamaged sealed pack-	

aging 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.

Product Declaration	EN 13956 - Polymeric sheets for roof waterproofing	
Visible Defects	Pass	(EN 1850-2)
Length	20 m (-0 / +5 %)	(EN 1848-2)
Width	2 m (-0,5 / +1 %)	(EN 1848-2)
Effective Thickness	1,5 mm (-5 / +10 %)	(EN 1849-2)
Overall Thickness	1,5 mm (-5 % / +10 %)	(GB 12952)
Straightness	≤ 30 mm	(EN 1848-2)
Flatness	≤ 30 mm	(EN 1848-2)

TECHNICAL INFORMATION

Resistance to Impact	hard substrate	≥ 500 mm	(EN 12691)
	soft substrate	≥ 1000 mm	
		watertight	(GB/T20624.2)
Resistance to Static Load	soft substrate	≥ 20 kg	(EN 12730)
	rigid substrate	≥ 20 kg	
		watertight	(GB/T328.25)
Resistance to Root Penetration	Pass		(EN 13948)
	Pass		(JC/T1075)
	Pass		(FLL)
Tensile Strength	longitudinal (md) ¹⁾	≥ 10 N/mm ²	(EN 12311-2)
	transversal (cmd) ²⁾	≥ 9 N/mm ²	
		≥ 10 MPa	(GB/T328.9)
	¹⁾ md = machine direction ²⁾ cmd = cross machine direction		
Elongation	longitudinal (md) ¹⁾	≥ 230 %	(EN 12311-2)
	transversal (cmd) ²⁾	≥ 210 %	
		≥ 200 %	(GB/T328.9)
	¹⁾ md = machine direction ²⁾ cmd = cross machine direction		
Dimensional Stability	longitudinal (md) ¹⁾	≤ 0,2 %	(EN 1107-2)
	transversal (cmd) ²⁾	≤ 0,1 %	
		≤ 0,1 %	
	¹⁾ md = machine direction ²⁾ cmd = cross machine direction		
Joint Peel Resistance	≥ 3 N/mm		(GB/T328.21)
Joint Shear Resistance	≥ 550 N/50 mm		(EN 12317-2)
Foldability at Low Temperature	≤ -25 °C		(EN 495-5)
	no crack		(GB/T328.15)
Reaction to Fire	Class E	(EN ISO 11925-2, classification to EN 13501-1)	
	Class E		(GB 8624 / EN 13501-1)

Effect of Liquid Chemicals, Including Water	On request	(EN 1928)
Resistance to Alkalinity	tensile strength retention	≥ 85 % (GB/T12952)
	elongation retention	≥ 80 %
	low temperature bend	no crack
Retention of Properties after Heat Ageing	tensile strength retention	≥ 85 % (GB/T18244)
	elongation retention	≥ 85 %
	low temperature bend	no crack
Resistance to UV Exposure	Not resistant for permanent exposure to UV irradiation.	
Water Vapour Transmission	μ = 15 000	(EN 1931)
Water Absorption	wet weight	≤ 4 % (GB/T 12952)
	dry weight	≤ -0,4 %
Watertightness	pass	(EN 1928)
	watertight	(GB/T328.10)

SYSTEMS

System Structure	<p>The following products must be considered for use depending on roof design:</p> <ul style="list-style-type: none"> ▪ Sarnafil® G 410-15 Sheet for detailing ▪ Sarnafil® Metal Sheet ▪ Sarnabar ▪ S-Welding Cord ▪ Sarna Seam Cleaner ▪ Sarna Cleaner ▪ S-Felt <p>Ancillary products: wide range of accessories is available e.g. prefabricated parts, roof drains, scuppers, protection sheets and separation layers.</p>	
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.	

APPLICATION INFORMATION

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

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

SUBSTRATE QUALITY

The substrate surface must be uniform, smooth and free of any sharp protrusions or burrs, etc. Sarnafil® G 476-15 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. Metal sheets must be degreased with Sarna Cleaner before adhesive is applied.

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.

Adhered roof membrane and flashings

The membrane is bonded to the substrate and flashings by using Sarnacol® 2170 / 2172 Spray contact adhesive.

Ballasted roof membrane

The roof waterproofing membrane is installed by loose laying and covering with ballast. The weight of ballast required must be calculated in accordance with project specific calculations based on national standards. The membrane is then covered with a protective layer of S-Felt protective layer or Sarnafil® Protective Sheet which is then fully covered evenly with a minimum 50 mm thickness of washed gravel (8-16 or 16-32 mm diameter).

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 screwdriver to ensure the integrity/completion of the weld. Any imperfections must be rectified by hot air welding.

FURTHER INFORMATION

Installation

- Application Manual

IMPORTANT CONSIDERATIONS

Installation work must only be carried out by Sika® trained and approved contractors experienced in this type of application.

- Ensure Sarnafil® G 476-15 is prevented from direct contact with incompatible materials (refer to compatibility section).
- Do not apply to wet, damp or unclean surfaces
- 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.

PRODUCT DATA SHEET

Sarnafil® G 476-15

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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

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)

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.