BUILDING TRUST

PRODUCT DATA SHEET

Sarnafil® G 410-15 L

POLYMERIC MEMBRANE FOR BALLASTED ROOF WATERPROOFING

CE

DESCRIPTION

Sarnafil® G 410-15 L (thickness 1.5 mm) is a multi-layer, synthetic roof waterproofing sheet based on premium-quality polyvinyl chloride (PVC) with inlay of glass non-woven containing ultraviolet light stabilizers according to EN 13956.
Sarnafil® G 410-15 L is a hot air weldable roof membrane, formulated for direct exposure and designed to use in all global climatic conditions.
Sarnafil® G 410-15 L has a unique lacquer coating applied to the top of the membrane.
Suitable for use in hot and tropical climatic conditions.

USES

Roof waterproofing membrane for roofs with ballast (example: gravel, concrete slabs, green roof):
- Loosely laid and ballasted
- 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 junctions, roof lights, etc., which are permanently exposed in roof lights, etc. which are permanently exposed in installations of Sarnafil® G 410-15 L roof waterproofing systems with ballast.
- Fully bonded junction areas with contact adhesive Sarnacol®-2170 in mechanically fastened roof systems with Sarnafil® S 327-types.

CHARACTERISTICS / ADVANTAGES

- Proven performance over decades.
- Lacquer coated surface.
- High dimensional stability due to glass fleece inlay.
- Resistant to permanent UV irradiation.
- High water vapour permeability.
- Resistant to all common environmental influences.
- Hot air welding without use of open flames.
- Recyclable.

APPROVALS / CERTIFICATES

Sarnafil® G 410-15 L 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-4919 and provided with the CE marking.
- Reaction to fire according to EN 13501-1.
- Official Quality Approvals and Agreement Certificates.
- Monitoring and assessment by approved laboratories.

PRODUCT INFORMATION

Packaging

Sarnafil® G 410-15 L 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	73.50 kg

Appearance / Colour

Surface	Matt
Colours	
Top surface	Light grey (nearest RAL 7047)
Bottom surface	Dark grey

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.

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)
Effective Thickness	1.5 mm (-5 / +10 %)	(EN 1849-2)
Straightness	≤ 30 mm	(EN 1848-2)
Flatness	≤ 10 mm	(EN 1848-2)
Mass per unit area	1.84 (-5 / +10 %) kg/m²	(EN 1849-2)

TECHNICAL INFORMATION

Resistance to Impact	Hard substrate	≥ 600 mm	(EN 12691)
	Soft substrate	≥ 1000 mm	
Resistance to Static Load	Soft substrate	≥ 20 kg	(EN 12730)
	Rigid substrate	≥ 20 kg	
Resistance to Root Penetration	Pass		(EN13948)
Tensile Strength	Longitudinal (md) [1]	≥ 9.5 N/mm²	(EN 123111-2)
	Transversal (cmd)[2]	≥ 8.5 N/mm²	
Elongation	Longitudinal (md)[1]	≥ 230 %	(EN 12311-2)
	Transversal (cmd)[2]	≥ 210 %	
Dimensional Stability	Longitudinal (md)[1]	≤ 0.2 %	(EN 1107-2)
	Transversal (cmd)[2]	≤ 0.1 %	
Joint Shear Resistance	≥ 600 N/50 mm		(EN 12317-2)
Foldability at Low Temperature	≤ -25°C		(EN 495-5)
Reaction to Fire	Class E		(EN ISO 11925-2, classification to EN 13501-1)

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

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Effect of Liquid Chemicals, Including Water	On request	(EN 1847)
Resistance to UV Exposure	Pass (> 5 000 h / grade 0)	(EN 1297)
Water Vapour Transmission	μ = 15 000	(EN 1931)
Watertightness	Pass	(EN 1928)

SYSTEMS

System Structure	Wide range of accessories is available, for example prefabricated parts, roof drains, scuppers, protection sheets and separation layers. **The following materials shall be used:** ▪ Sarnafil® G 410-15 Sheet for detailing ▪ Sarnafil® Metal Sheet ▪ Sarnabar® ▪ S-Welding Cord ▪ Sarna Seam Cleaner ▪ Sarnacol®-2170 (contact adhesive) ▪ Sarna Cleaner
Compatibility	Not compatible with direct contact to other plastics, example EPS, XPS, PUR, PIR or PF. Not resistant to tar, bitumen, oil and solvent containing materials.
Ambient Air Temperature	Ambient temperature: -20 °C min. / +60 °C max.
Substrate Temperature	Substrate temperature: -30 °C min. / +60 °C max.

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 Sarna 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.

APPLICATION METHOD / TOOLS

Installation procedure:
According to the valid installation instructions for Sarnafil® G 410-types system for roofs with ballast.

Fixing Method:
Loosely laid and covered with ballast. Mechanical fixing at the roof perimeter with Sarnabar® including S-Welding Cord is obligatory to keep membrane in place. The roof waterproofing membrane is installed by loose laying and covered with ballast according to local wind load situation.
Flat roofs with a minimum 50 mm thick gravel ballast and protective layer:
▪ Install S-Felt protective layer or Sarnafil® Protective Sheet
▪ Spread washed gravel, 8/16 of 16/32 mm diameter, evenly
Adhering flashings
Sarnafil® G 410-15 L is adhered to substrate layers such as reinforced concrete, rendering, timber panels, metal sheets etc. using Sarnacol® 2170 adhesive.

Welding Method:
Overlap seams are welded by electric heat 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

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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