PRODUCT DATA SHEET

Sarnafil® G 410-15 EL Felt

PVC adhered membrane for roof waterproofing

PRODUCT DESCRIPTION

Sarnafil® G 410-15 EL Felt is a PVC, multi-layer, fully adhered, lacquered matt finish, weldable sheet membrane with a glass fibre reinforcing inlay and polyester fleece backing for roof waterproofing. Contains ultraviolet light stabilizers and flame retardants to provide a colour stable, fast installation, low maintenance and durable membrane. Thickness 1,5 mm.

USES

This product may only be used by Sika® trained professionals.

- Bonded, roof waterproofing membrane for exposed roofs

CHARACTERISTICS / ADVANTAGES

- Proven performance over decades
- Lacquer coated surface
- Various colours available
- Fast installation with Sarnacol® adhesives
- Resistant to UV exposure
- High dimensional stability due to glass fleece inlay.
- High water vapour permeability.
- Resistant to all common environmental influences
- Felt backing compatible with old bitumen surfaces
- Heat weldable

ENVIRONMENTAL INFORMATION

- Conformity with LEED v4 SSc 5 (Option 1): Heat Island Reduction - Roof (only traffic white (SR))
- Conformity with LEED v4 MRc 2 (Option 1): Building Product Disclosure and Optimization – Environmental Product Declarations
- Conformity with LEED v4 MRc 3 (Option 2): Building Product Disclosure and Optimization - Sourcing of Raw Materials
- Conformity with LEED v4 MRc 4 (Option 2): Building Product Disclosure and Optimization - Material Ingredients
- Conformity with LEED v2009 MRc 4 (Option 2): Recycled Content
- BRE Environmental Product Declaration (EPD) available

APPROVALS / STANDARDS

- CE Marking and Declaration of Performance to EN 13956 - Polymeric sheets for roof waterproofing.

PRODUCT INFORMATION

Packaging

Standard rolls are wrapped individually in a blue PE-foil.

Roll size	
Length	15,00 m
Width	2,00 m
Weight	66,00 kg

Appearance / Colour

Surface	matt
Colours	
Top surface	light grey (nearest RAL 7047) lead grey (Sika colour no. 9500) copper patina (Sika colour no. 6525) copper brown (nearest RAL 8004) traffic white (nearest RAL 9016)
Bottom surface	dark grey

Top surface colour available in other colours subject to minimum order quantities.

Shelf Life

5 years from date of production

Storage Conditions

Product must be stored in original unopened and undamaged sealed packaging 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	15 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	2,2 kg/m² (-5 % / +10 %)	(EN 1849-2)

TECHNICAL INFORMATION

Resistance to Impact	hard substrate	≥ 700 mm	(EN 12691)
	soft substrate	≥ 1500 mm	
Hail Resistance	rigid substrate	≥ 22 m/s	(EN 13583)
	flexible substrate	≥ 30 m/s	
Resistance to Static Load	soft substrate	≥ 20 kg	(EN 12730)
	rigid substrate	≥ 20 kg	
Tensile Strength	longitudinal (md)[1)]	≥ 700 N/50 mm	(EN 12311-2)
	transversal (cmd)[2)]	≥ 700 N/50 mm	

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

Elongation	longitudinal (md)[1)]	≥ 65 %	(EN 12311-2)
	transversal (cmd)[2)]	≥ 65 %	
	[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 Peel Resistance	≥ 300 N/50 mm		(EN 12316-2)
Joint Shear Resistance	≥ 600 N/50 mm		(EN 12317-2)
Foldability at Low Temperature	≤ -25 °C		(EN 495-5)
External Fire Performance	B_{ROOF} (t4) < 20°		(EN 1187, classification to EN 13501-5) * PENDING
Reaction to Fire	Class E		(EN ISO 11925-2, classification to EN 13501-1)
Effect of Liquid Chemicals, Including Water	Contact Sika Technical Services for additional information		(EN 1847)
UV Exposure	Pass (> 5'000 h / grade 0)		(EN 1297)
Water Vapour Transimission	μ = 15 000		(EN 1931)
Water Tightness	Pass		(EN 1928)

Solar Reflectance Index (ASTM E 1980)

Colour	Initial	3-years aged	Test Institute
RAL 9016	106	77	CRRC
Nr. 9525	55	-	Sika
Nr. 9500	4	-	Sika

CRRC tested products are listed in Cool Roof Rating Council (CRRC) product data base.

USGBC LEED Rating (ASTM E 1980)

Colour	Initial	3-years aged
RAL 9016 traffic white	SRI > 82	SRI > 64

SYSTEM INFORMATION

Compatibility	Not compatible in direct contact with plastics, e.g. EPS, XPS, 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.

VALUE BASE

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

FURTHER DOCUMENTS

- Installation instructions: Sarnafil® G 410-EL types system fully bonded for exposed roofs.

LIMITATIONS

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

- Do not apply to wet, damp or unclean surfaces
- Installation of some ancillary products, e.g. contact adhesives / cleaners are limited to temperatures above +5 °C. (Refer to appropriate Product Data Sheet).
- Be aware special measures may be compulsory for

certain installations below +5 °C ambient temperature due to safety and national regulations.

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).

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY

The substrate surface/supporting layer must be uniform, smooth and free of any sharp protrusion or burrs, clean, dry and free of grease, bitumen, oil and dust. All layers of the roof build-up and substrate must be secured against wind uplift. Metal sheets must be degreased with Sarna Cleaner before adhesive application.

SUBSTRATE PREPARATION

If dust exists on the surface, it must be completely removed before application of the product, preferably by vacuum extraction equipment.
Metal sheets must be degreased before adhesive application.

APPLICATION METHOD / TOOLS

Reference must be made to further documentation where applicable, such as relevant method statement, application manual and installation or working instructions.

Installation procedure
Reference must be made to the installation instructions: Sarnafil® G 410-EL types system fully bonded for exposed roofs.

Fully bonded roof surfaces and detailing
The membrane is bonded to the substrate by Sarnacol® 2170, SikaRoof® 400 Spray adhesive or Sarnacol® 2142V adhesive depending on the type and slope of substrate.

Welding overlap seams
All membrane seam overlaps must be welded by using hand welding guns and pressure rollers or automatic heat welding machines, with individually adjustable and electronically controlled welding temperatures.

Recommended welding equipment
Manual - Leister Triac PID. Automatic - Sarnamatic 681. Welding parameters, such as speed and temperature must be established with trials on site, prior to any welding works. The effective width of welded overlaps by hot air must be minimum 20 mm. The seams must be mechanically tested with a screw driver to ensure the integrity / completion of the weld. Any imperfections must be rectified by hot air welding.

Bonding to flashings
Sarnafil® G 410-15 EL Felt is bonded to flashing surfaces using Sarnacol® 2170 or SikaRoof® 400 Spray adhesive.

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 exact product data and uses.

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.

TECHNICAL ENQUIRIES
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