



## G410-EL Adhered Roof System – Sarnavap 1000E

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### Detailed description

PVC-P single-ply roofing system for adhered warm roofs.

#### System includes:

- Sarnafil G410-EL waterproof membrane.
- SarnaTherm G insulation.
- Sarnavap 1000E vapour control layer.

#### - Waterproof membrane:

Sarnafil G membranes are manufactured using a state of the art extrusion coating process that eliminates shrinkage and plastic memory and produces a dynamically stable membrane. In the coating process, a glass fibre carrier is coated on both sides with liquid Plastisol, prior to the application of a lacquer coating on the upper surface and laser marking of the membrane surface for identification. The unique lacquer coating eliminates the need for biocides, provides the membrane with an easy to clean surface and prolongs the life of the membrane by reducing plasticiser loss.

The process enables between 2% and 5% of recycled material to be used in the production of new membranes.

#### - Insulation:

Rigid polyisocyanurate foam insulation boards to BS 13166; with mineral tissue facing. Available in uniform thickness or tapered.

#### - Vapour control layer:

A 0.20 mm thick, polyethylene based, vapour control layer. Sarnavap 1000E is manufactured from low density polyethylene, blended to produce a vapour control layer that is flexible when cold, resistant to chemicals and ageing and rot proof. It is suitable for use in most mechanically fastened systems using both Sarnafil PVC and FPO membranes. Not suitable for high humidity applications or under green roofs.

#### Performance:

Certified by BBA, in their opinion, to have a "life expectancy in excess of 40 years" for exposed applications, with periodic maintenance as stated below.

"A planned maintenance cycle, including inspections by the Certificate holder at minimum intervals of five years, should be introduced if an extended service life is required. The Certificate holder can advise on methods of extending the service life. This could include the use of thicker membranes, specific maintenance requirements or localised replacement and repair."

Should the maintenance cycle not be followed Sarnafil G/S membranes

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have been given, by the BBA in their opinion, a life expectancy of "in excess of 35 years".

#### Installation:

##### - Waterproof membrane:

In adhered applications Sarnafil G410-EL is adhered directly to the substrate or a suitable thermal insulation board with Sarnacol 2170 or Sarnacol 2172 spray adhesive. Laps are then hot air welded to form seams which are stronger than the membrane itself.

Installation is carried out by Sarnafil trained contractors.

##### - Insulation:

SarnaTherm G can be attached to the substrate (deck or suitable vapour control layer) by mechanically fastening with SBT tubes and SBIW-70x70 pressure plates.

A vapour control layer will be required when SarnaTherm G is used.

##### - Vapour control layer:

Loose laid over any smooth surface with all side and end laps overlapped a minimum 80 mm, then sealed with Sarnavap jointing tape. At parapets and upstands, Sarnavap must be carried up to the upper edge of the thermal insulation and sealed to the upstand/ penetration with SarnaVap jointing tape, to form an airtight seal. When installed vertically, Sarnavap must be mechanically fastened along its top edge.

If the surface is rough, a layer of Sarnafil Type T should be used as cushioning layer.

### Product guidance - As Standard

#### Waterproof membrane:

##### - Width:

2.0 m.

##### - Length of roll:

20 m (15 m for 1.8 mm thick membrane).

##### - Weight:

- 1.2 mm thick: 1.50 kg/m<sup>2</sup>.
- 1.5 mm thick: 1.90 kg/m<sup>2</sup>.
- 1.8 mm thick: 2.30 kg/m<sup>2</sup>.

#### Insulation:

- Low thermal conductivity: 0.027 W/mK (thicknesses <80 mm), 0.026 W/mK (thicknesses from 80–120 mm) and 0.025 W/mK (thicknesses >120 mm).
- Compressive strength >150 kPa at 10% deformation.
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- Typical Density of 32 kg/m<sup>3</sup>.
- <5% smoke emission when tested to BS 5111-1.
- CFC/ HCFC-free.
- Zero ozone depletion potential (ODP).
- Class O fire rating.

#### Vapour control layer:

##### - Material:

Low density polyethylene (LDPE).

##### - Dimensions:

- Thickness: 0.20 mm.
- Width: 5.0 m.
- Roll width: 1.3 m.
- Roll length: 25 m.

##### - Weight:

0.192 kg/m<sup>2</sup>.

##### - Colour:

Blue (opaque).

##### - Performance:

Water vapour resistance: >800 MNs/g.

## Options

#### Waterproof membrane:

##### - Colour:

Available in standard colours. Other colours may be available, subject to a lead time and minimum order quantities.

#### Accessories:

- Double L rainwater outlets: Insulated outlets.
- G/S rainwater outlets: Injection moulded PVC outlets and scuppers.
- Primer 110: Surface primer creating a key for Sarnaplast 2235.
- Sarnafil Constant Force post: Cable-based fall arrest and restraint system.
- Sarnafil Double L: High drainage capacity insulated rainwater outlet.
- Sarnafil heat weldable lightning conductor clips.
- Sarnafil Type T: For use with Sarnavap 1000E VCL.
- Sarnametal: Galvanized metal sheet with Sarnafil G410-12EL factory laminated to it, for use in prefabricated flashings and drip details.
- Sarnaplast 2235: Elastic one-part silicone sealant for sealing edges



and perimeter upstand flashing terminations.

- Sarnavap jointing tape: For use with Sarnavap 1000E VCL.

## Product specification

### Manufacturer

- Name: Sika Sarnafil
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**Product reference** G410-EL Adhered Roof System – Sarnavap 1000E

**Primer** Not required  
Primer 110

### Waterproof membrane

- Type Sarnafil G410-EL
- Thickness 1.2  
1.5  
1.8  
2.0
- Colour Copper Patina Green  
Lead grey  
Light grey  
White RAL 9016 SR (solar reflective)

- Attachment Adhered

### Insulation

- Type SarnaTherm G  
SarnaTherm G Tapered

- Thickness [ ]

- Attachment Mechanically Fastened

### Vapour control layer

- Type Sarnavap 1000E

- Attachment Loose laid

**Accessories** [Double L rainwater outlets]

Sika Sarnafil



[G/S rainwater outlets]  
[Sarnafil Constant Force post]  
[Sarnafil heat weldable lightning  
conductor clips]  
[Sarnafil Type T]  
[Sarnametal]  
[Sarnaplast 2235]  
[Sarnavap jointing tape]