

# Sarnavap 5000E SA

## Vapour Control Layer

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**Positioning Description** Sarnavap 5000E SA is a multi-layer self-adhesive vapour control layer made of polymer modified bitumen with a glass-fibre mat reinforcement and an aluminium foil as top layer.

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**Uses** Vapour control layer (VCL) is applied over most common substrates such as concrete, metal decks, plywood, timber boards and/or oriented strand fibre board (OSB) decks.

Special application within adhered systems:

- Adhered system: Self-adhesion strength limits maximum wind uplift design load.
- Combined adhered system: Self-adhesion strength is part of wind uplift design.

Temporary waterproofing layer: Sarnavap 5000E SA can also be used as a temporary waterproofing layer, as the top layer can be left exposed for up to four weeks.

Important: If used in an adhered roof build-up, additional installation requirements must be applied e.g. use of Primer 600 to achieve full self adhesion strength.

- Self-adhesion strength on metal decks with a maximum design load of 2.4kN/m<sup>2</sup>.
- Self-adhered on concrete decks in combination with Primer 600, with a maximum design load of 2.8kN/m<sup>2</sup>.
- Self-adhered on plywood/OSB decks in combination with Primer 600, with a maximum design load of 2.8kN/m<sup>2</sup>.

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**Advantages**

- Ease and speed of installation, due to self-adhesive properties of the back layer and its specific weight.
- Can be used in a totally adhered roof build-up. No additional fasteners required for securing the thermal insulation boards to the structural deck.
- Can be used as a temporary waterproof layer for up to four weeks, as a top layer without the need for additional weight/ballast and/or mechanical fastening.
- Due to its high adhesion strength the VCL can withstand high wind loads, design load between 2.4kN/m<sup>2</sup> and 2.8kN/m<sup>2</sup>.
- High adhesion/bonding strength leading to an air tight roof construction.
- High tearing resistance under foot traffic makes it ideal for use on profiled metal decks.
- High water vapour resistance makes it suitable in combination with all membranes.
- Wide range of system applications.
- Improved fire resistance.
- Can be bonded on roof slopes and up vertical abutments.

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**Approvals / Standards**

- CE marking according to EN 13970
- Reaction to fire according to EN 13501-1
- Fire behaviour according to BS 476-6,7
- Quality management system EN ISO 9001/14001



## Product Data

<b>Appearance</b>	Surface:	Aluminium foil with Sarnavap 5000E SA printed on it.
<b>Colour</b>	Top surface:	Aluminium matt and product name printed in blue.
	Bottom surface:	A line to mark overlap area (7.5 cm), on one roll side. White/black with release liner (PE-LD foil)
<b>Packaging</b>	Roll length:	30.00m
	Roll width:	1.08m
	Roll weight:	22.68kg
<b>Storage &amp; Shelf Life</b>	Store rolls in vertical position and protect against sunlight, rainfall, snow and heat. During cold weather the rolls shall be protected against frost. Do not stack pallets of rolls during transport or storage. The product must be installed within twelve (12) months of production date.	

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## Technical Data

<b>Product Declaration</b>		EN 13970
<b>Chemical Basis</b>	Polymer modified bitumen (self adhesive) with a glass fleece carrier, a composite aluminium foil as top layer and a PE-LD release liner.	
<b>Length</b>	30.00m (+ 2 %)	EN 1848-2
<b>Width</b>	1.08m (± 1 %)	EN 1848-2
<b>Thickness</b>	0.60mm (±10 %)	EN 1849-2
<b>Mass per unit area</b>	700g/m <sup>2</sup> (±10 %)	EN 1849-2
<b>Straightness</b>	Pass	EN 1848-1
<b>Visible defects</b>	Pass	EN 1850-1
<b>Reaction to fire, freely suspended</b>	Class E	EN ISO 11952-2: 2002, classification to EN 13501-1
<b>Water vapour permeability</b>	> 1800m	EN 1931
<b>Water tightness</b>	Pass	EN 1928
<b>Tensile strength</b>	≥ 440N	N 29073-3
<b>Elongation at break</b>	≥ 2 %	EN 29073-3
<b>Resistance to impact</b>	Ø 10mm	EN 12 691
<b>Cold bending test</b>	-20°C	EN 495-5
<b>Tear resistance (nail shank)</b>	≥ 100N	EN 12 310-1



<b>Joint peel strength</b>	≥ 50N/50mm	EN 12 316-2
<b>Joint shear strength</b>	≥ 5N/50mm	EN 12 317-2
<b>Durability against alkaline</b>	Pass	EN 1847
<b>Durability against ageing</b>	Pass	EN1296/EN1931

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## System Information

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<b>System Structure</b>	Ancillary, complementary products according to local price list:	
	- Primer 600 (on concrete and plywood/OSB substrates, if required)	
	- Sarnacol <sup>®</sup> 2162, to adhere specified insulation board onto Sarnavap 5000E SA	
	- Sarna Cleaner	

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## Application Details

<b>Consumption</b>	~ 1.08m <sup>2</sup> / square metre surface
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<b>Substrate Quality</b>	<p>Sarnavap 5000E SA is suitable on all major structural decks including concrete, corrugated/profiled metal and plywood/OSB. Any other substrate type requires approval by Sika.</p> <p>Generally, substrates must be in plane, even and clean, free of dust, oil and grease. Depending on substrate type and roofing assembly (system application), Sarnavap 5000E EA may only be used in combination with Primer 600.</p>
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*Concrete deck:*

Substrate shall fulfil general requirements and shall not contain any jagged and/or coarse-grained surface areas. Primer 600 must be used at approx 200g/m<sup>2</sup> – 400g/m<sup>2</sup>, depending on surface smoothness and porosity, if used in an adhered system.

*Plywood/OSB deck:*

Substrate shall be clean and dry.

The substrate must be primed first with Primer 600, at approx. 200g/m<sup>2</sup>, if used in an adhered system.

*Corrugated metal deck:*

Corrugated metal decks shall be clean, dry and free of oil, dust and grease. No primer is required.

*Vertical areas/upstands and flashings:*

Flashings and terminations form the edges of the vapour control function and airtight layer; thus these must be executed with care (until top edge of the insulation boards).

- Without primer: Plywood, OSB, metallic substrates (free of oil and grease), plasticizer-free synthetics (except for rigid polystyrene), bituminous materials (after sand or slate chip surfacing has been removed).

- With Primer 600: Concrete, masonry, raw wood products and porous materials require two primer coatings, at approx. 200g/m<sup>2</sup> - 500g/m<sup>2</sup>.

<b>Substrate Preparation</b>	Remove loose ends, clean and prime depending on substrate.
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## Application Conditions / Limits

### Notes on Application/ Limits

In systems where a single point of responsibility is required, only Sika products and/or Sika approved products must be used.

## Installation Instructions

### Application Guideline

Depending on system used (mechanically fastened/ballasted/adhered) refer to relevant system information.

### Application Method

Fixing Method – Adhered Systems:

Sarnavap 5000E SA is adhered to the substrate. In case of a concrete or plywood/OSB substrate, Primer 600 must be applied as substrate treatment, to achieve the required adhesion strength.

An approved thermal insulation board must be selected. In an adhered system, the specified thermal insulation board is adhered to the Sarnavap 5000E SA, using Sarnacol® 2162.

Finally, the selected Sarnafil® membrane is adhered to the surface of the insulation board, using either Sarnacol® 2170 or Sarnacol® 2142S (only in combination with fleece backed membrane) adhesive.

### Installation Procedure

Before adhering the Sarnavap 5000E SA, the substrate must be checked (clean without any surface contaminations, free of foreign objects and/or surface toppings, oil and grease free, and dry).

On profiled metal decks, the sheets must be laid in the direction of the deck, where the side/longitudinal seams are fully supported, positioned on the top flange of the profiled metal deck. At the end of the roll, an additional 20cm wide Sarnavap 5000E SA strip has to be adhered firmly on the already laid VCL sheets, positioned on centre and running perpendicular to the deck direction (laid rolls). This provides a firm backer to which the ends of the sheets can be adhered to.

Sarnavap 5000E SA seams (side and end laps) are formed with an overlap of 7.5 cm by self-adhesion; no additional primer is needed. To achieve tightly sealed seams the laps must be rolled down firmly with a pressure roller (silicone roller). If seams are not immediately closed after unrolling the Sarnavap 5000E SA, all seams need to be properly cleaned with Sarna Cleaner. Allow Sarna Cleaner to evaporate completely.

Roll out first Sarnavap 5000E SA in the direction of the metal profile. Following rolls must be rolled out and aligned with the line marking which marks the overlap area at 7.5 cm. Adhere the first part of the self-adhesive vapour barrier and peel away the release liner sideways.

At T-joints the edge of the middle, covered sheet is to be bevelled at 45°. Using a silicone roller, all laps including the steps at bevels are to be firmly pressed together after being adhered into position. All flashings, upstands and penetrating elements e.g. vent pipes, must be closed airtight, whereby the Sarnavap 5000E SA must always be attached on the warm side of the insulation.

The full area of Sarnavap 5000E SA must be pressed into place immediately after adhering, using a pressure roller or similar.

OSB and plywood boards of more than 50 cm width are not primed at the joints. Leave a strip of max. 10 cm width free of primer each side of the joint, to facilitate smaller movements of the boards. Where the width of the OSB or plywood boards is less than 50 cm, the boards are primed with Primer 600 to a full spread.

If the Sarnavap 5000E SA layer is to serve as temporary waterproofing during construction (four weeks), a slope of at least 2% must be provided to ensure drainage. Roof drainage lines must be adequately sized.

### Tool Cleaning

Tools and equipment must be cleaned with Sarna Cleaner immediately after use.



**Notes on Installation/  
Limits**

Installation works must be carried out only by Sika instructed and approved roofing contractors.

Temperature limits for the installation of Sarnavap 5000E SA:

Substrate temperature: at least +5 °C min.

Ambient temperature: at least +5 °C min.

Note:

Correctly installed, the Sarnafil® membrane will provide a vertical adhesion resistance of up to 10kN/m<sup>2</sup>. The limiting factor in the wind up-lift resistance of the adhered roofing assembly will be the adhesion strength of the Sarnavap 5000E SA to the substrate. See information under "Uses".

Sarnavap 5000E SA is not suitable as permanent waterproofing. It is not designed as a roofing membrane and therefore can not replace the waterproofing membrane.

**Value Base**

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.

**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.

**Ecology, Health and  
Safety Information**

A Safety Data Sheet following EC-Regulation 1907/2006, Article 31 is not needed to bring the product to the market, to transport or to use it. The product does not damage the environment when used as specified.

**Protective Measures**

Fresh air ventilation must be ensured, when working (welding) in closed rooms. Local safety regulations must be observed.

**Transportation Class**

The product is not classified as a hazardous good for transport.

**Disposal**

Disposal must be according to local regulations. Please contact your local Sika sales organisation for more information.

**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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