

Sarnavap® 5000E SA

Vapour Control Layer

Product 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.

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) deck.

Special application within adhered systems:

- Adhered system: Self-adhesion strength limits max 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 temporary waterproofing layer, as top layer can be left exposed for up to 4 weeks.

Important: If used in an adhered roof build-up, additional installation requirements must be applied e.g. use of Primer 610/600 to achieve full self adhesion strength:

- Self adhesion strength on metal decks, in combination with Primer 610/600, max. design load of 2.4 kN/m²
- Self-adhered on concrete deck in combination with Primer 610/600, max. design load 2.4 kN/m².
- Self-adhered on plywood/OSB deck in combination with Primer 610/600, max. design load 2.4 kN/m².

Characteristics / Advantages

- Ease and speed of installation, due to self-adhesive property of 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 temporary waterproof layer for up to 4 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 up to 2.4 kN/m².
- 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 application range, in regard to use in different system applications and/or in combination with different structural deck types, substrates.
- Improved fire resistance achieved by added flame-retardant.
- Can be bonded on roof slopes and up vertical abutments.

Tests

Approvals / Standards	■	CE marking according EN 13970
	■	Reaction to fire according to EN 13 501-1
	■	Fire behaviour according BS 476-6,7
	■	Quality management system EN ISO 9001/14001

Product Data

Form

Appearance	Surface:	Aluminium foil.
Colour	Top surface:	Aluminium matt and product name printed in blue. Additionally a line to mark overlap area (7.5 cm), on one roll side.
	Bottom surface:	White/black with release liner (PE-LD foil)
Packaging	Packing unit:	see price list
	Roll length:	30.00 m
	Roll width:	1.08 m
	Roll weight:	19.50 kg

Storage

Storage Conditions	Store rolls in vertical position and protected 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.
Shelf-Life	The product must be installed within 12 months of production date.

Technical Data

Product Declaration		EN 13970
Chemical Basis	Polymer modified bitumen (self adhesive) with a glass fleece carrier, a composite aluminium foil as top layer and a PE-LD release liner.	
Length	30.00 m (+ 2 %)	EN 1848-2
Width	1.08 m (± 1 %)	EN 1848-2
Thickness	0.60 mm (±10 %)	EN 1849-2
Mass per unit area	600 g/m ² (±10 %)	EN 1849-2
Straightness	Pass	EN 1848-1
Visible defects	Pass	EN 1850-1
Reaction to fire, freely suspended	Class E	EN ISO 11952-2: 2002, classification to EN 13501-1
Water vapour permeability	> 1800 m	EN 1931

Water tightness	Pass	EN 1928
Tensile strength	≥ 500 N /50 mm	EN 29073-3
Elongation at break	≥ 2%	EN 29073-3
Resistance to impact Procedure A 150 mm	Pass	EN 12 691
Cold bending test	-20°C	EN 495-5
Tear resistance (nail shank)	≥ 100 N	EN 12 310-1
Joint peel strength	≥ 50 N/50 mm	EN 12 316-2
Joint shear strength	≥ 400 N/50 mm	EN 12 317-2
Durability against alkaline	Pass	EN 1847
Durability against aging	Pass	EN1296/EN1931

System Information

System Structure	Ancillary, complementary products according to local price list: <ul style="list-style-type: none"> - Primer 610/600 on concrete, metal deck and plywood/OSB substrates - Sarnacol® 2162, to adhere specified insulation board onto Sarnavap® 5000E SA - Sarna Cleaner - Sarnafil® T Prep - Solvent T 660
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Application Details

Substrate Quality	<p>Sarnavap® 5000E SA is released on all major structural decks; concrete decks, corrugated/profiled metal deck, and plywood/OSB decks. Any other substrate type requires approval by Sika Limited.</p> <p>Generally, substrates must be in plane, even and clean; further free of dust, oil and grease.</p> <p>Depending on substrate type and roofing assembly (system application) Sarnavap® 5000E SA may only be used in combination with Primer 610/600.</p>
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Concrete deck:
In plane concrete deck and or/levelled screed. Substrate shall fulfil general requirements and shall not contain any pointy and/or coarse-grained surface areas. Primer 610/600 must be used in any case. See relevant PDS/SDS for instructions.

Plywood/OSB deck:
Substrate shall be clean and dry.
Primer 610/600 must be used in any case. See relevant PDS/SDS for instructions.

Corrugated metal deck:
Corrugated metal deck shall be clean, dry and free of oil, dust and grease.
Primer 610/600 must be used in any case. See relevant PDS/SDS for instructions.

Vertical areas / upstands and flashing
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).
Primer 610/600 must be used in any case. See relevant PDS/SDS for instructions.

Substrate Preparation	Remove loose ends, clean or 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.
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**Installation
Instructions**

Application Guideline	Depending on system used (mechanically fastend/ballasted/adhered) refer to relevant system information.
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Application Method	<p>Fixing Method – Adhered Systems: Sarnavap® 5000E SA is adhered to the substrate. In case of a concrete, metallic or plywood/OSB substrate Primer 610/600 must be applied as substrate treatment, to achieve the required adhesion strength.</p> <p>An approved thermal insulation board must be selected. In an adhered system, the specified thermal insulation board is being adhered to the Sarnavap® 5000E SA, using the Sarnacol® 2162.</p> <p>Finally the selected Sarnafil® membrane is adhered to the surface of the insulation board, using either Sarnacol® 2172/2170 or 2142S (only in combination with fleece backed membrane) adhesive.</p>
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Installation Procedure

Before beginning to adhere the Sarnavap® 5000E SA, the substrate must be checked (clean without any surface contamination, 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 20 cm 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 backing 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 needed. To achieve tightly sealed seams the laps must be rolled down firmly with a pressure roller (silicone roller) or by applying pressure. If seams are not immediately closed after unrolling the Sarnavap® 5000E SA, all seams then need to be properly cleaned with cleaner, Sarna Cleaner, Sarnafil® T Prep or Solvent T660. Allow the cleaners to evaporate completely.

If the Sarnavap® 5000E SA serves as a temporary waterproofing layer (max. 4 weeks during construction) and is applied between 5°C and 10°C ambient temperature it is necessary to have all seams heated first (by hot air e.g. Leister Triac). From above (approx. 300°C with 5 m/min) before firmly rolled down with a pressure roller.

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 pipe 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 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 610/600 to a full spread.

If the Sarnavap® 5000E SA layer is to serve as temporary waterproofing during construction (for up to 4 weeks), a slope of at least 1:80 must be provided to ensure drainage with no standing water. Roof drainage lines must be adequately sized.

Tool Cleaning

Tools and equipment must be cleaned with cleaner immediately after use.

**Notes on Installation/
Limits**

Installation works shall be performed only by Sarnafil® Registered Roofing Contractors.

Temperature limits for the installation of the Sarnavap® 5000E SA:

Substrate temperature: at least +10 °C min.

Ambient temperature: at least +10 °C min.

Sarnavap® 5000E SA is not suitable as permanent waterproofing. It is not designed as 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.
REACH	<p>European Community Regulation on chemicals and their safe use (REACH: EC 1907/2006)</p> <p>This product is an article within the meaning 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. Therefore, there are no registration requirements for substances in articles within the meaning of Article 7.1 of the Regulation.</p> <p>Based on our current knowledge, this product does not contain SVHC (substances of very high concern) from the candidate list published by the European Chemicals Agency in concentrations above 0.1 % (w/w).</p>
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 hazardous good for transport.
Disposal	Disposal must be according to regulatory requirements.
Legal Note	All data in our product information are based on our current knowledge and experience. They do not release users from careful testing of the application and strict observation of the relevant processing regulations because of the wide range of possible influences during the application and use of our products. Legally valid assurances of specific characteristics or suitability for special purposes of application other than those provided in our documentation for the specific product cannot be inferred from our information. Any protective rights or existing laws and provisions must be followed by the recipient or processor of our products at their own responsibility. Moreover our general terms and conditions of sale and guarantee are valid.



SIKA LIMITED
 Head Office · Watchmead · Welwyn Garden City
 Hertfordshire · AL7 1BQ · United Kingdom
 Phone: +44 1 707 394444 · Fax: +44 1 707 329129 ·
 www.sika.co.uk

