

## PRODUCT DATA SHEET

# S-Vap 5000 E SA

Self-adhesive vapour barrier and carrier membrane

### PRODUCT DESCRIPTION

S-Vap 5000 E SA is a multi-layered, self-adhesive vapour barrier manufactured from polymer modified bitumen with a glass-fibre mat reinforcement and an aluminium foil top layer.

### USES

S-Vap 5000 E SA may only be used by experienced professionals.

As a vapour barrier over most common roof deck types:

- Concrete / cementitious
- Metal
- Plywood panels, timber boards, oriented strand board (OSB)

As a carrier layer for use with approved liquid applied membranes.

Temporary waterproofing layer for up to 4 weeks.

### CHARACTERISTICS / ADVANTAGES

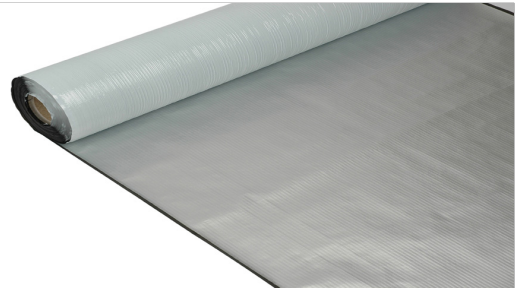
- Ease and speed of installation from self-adhesive properties
- Can be used in a fully adhered roof build-up. No additional fasteners required for securing the thermal insulation boards to the structural deck
- Temporary waterproof top layer for up to 4 weeks, without the requirement for additional weight/ballast and/or mechanical fastenings
- High self adhesion strength allows high wind design loads from 2,4 kN/m<sup>2</sup> to 2,8 kN/m<sup>2</sup>

### PRODUCT INFORMATION

#### Chemical Base

Polymer modified bitumen (self-adhesive) with composite aluminium top layer

- Provides an air tight layer
- High tear resistance to foot traffic during roof build up activities
- High water vapour resistance makes it suitable in combination with all types of membranes
- Accommodates a wide range of roof system, deck types and substrate combinations
- Can be bonded onto flashings, inclined or vertical surfaces



### APPROVALS / STANDARDS

- CE Marking and Declaration of Performance to EN 13970 - Bitumen water vapour control layers
- Fire Testing , S-Vap 5000 E SA, Hoch Test report No. 120600-2
- Vapour Permeability, S-Vap 5000 E SA, SKZ Test report No. 99572/12-P2
- Vapour Permeability, S-Vap 5000 E SA, SKZ, Test report No. 212581/20-II
- Watertightness, S-Vap 5000 E SA, SKZ Test report No. 110014/14-II-P1

|  |   |             |
|--|---|-------------|
| <b>Packaging</b>                                     | Roll size   |             |
|  | Length  | 30,00 m     |
|  | Width   | 1,08 m      |
|  | Weight  | 19,00 kg    |
| Refer to current price list for packaging variations |   |             |
| <b>Appearance / Colour</b>                           | Surface: Aluminium foil with PET film   |             |
| <b>Shelf Life</b>                                    | 12 months from production date.   |             |
| <b>Storage Conditions</b>                            | Product must be stored in original unopened and undamaged sealed packaging in dry conditions and temperatures between + 5 °C and + 35 °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. |             |
| <b>Product Declaration</b>                           | EN 13970: Bitumen water vapour control layers   |             |
| <b>Visible Defects</b>                               | Pass  | (EN 1850-1) |
| <b>Length</b>  | 30,00 m (+2 %)  | (EN 1848-2) |
| <b>Width</b>   | 1,08 m (±1 %)   | (EN 1848-2) |
| <b>Thickness</b>                                     | 0,60 mm (±10 %)   | (EN 1849-2) |
| <b>Straightness</b>                                  | Pass  | (EN 1848-1) |
| <b>Mass per unit area</b>                            | 600 g/m <sup>2</sup> (±100)   | (EN 1849-2) |

## TECHNICAL INFORMATION

|                                       |                           |                                      |
|---------------------------------------|---------------------------|--------------------------------------|
| <b>Resistance to Impact</b>           | Pass (procedure A 150 mm) | (EN 12691)                           |
| <b>Tensile Strength</b>               | ≥ 500 N/50 mm             | (EN 12311-1)                         |
| <b>Elongation at Break</b>            | ≥ 2 %                     | (EN 12311-1)                         |
| <b>Tear Strength</b>                  | ≥ 100 N                   | (EN 12310-1)                         |
| <b>Joint Peel Resistance</b>          | ≥ 50 N/50 mm              | (EN 12316-2)                         |
| <b>Joint Shear Resistance</b>         | ≥ 400 N/50 mm             | (EN 12317-2)                         |
| <b>Flexibility at low temperature</b> | -20 °C                    | (EN 495-5)                           |
| <b>Reaction to Fire</b>               | Class E                   | (EN ISO 11925-2: 2002)<br>(EN 13501) |
| <b>Resistance to Alkalinity</b>       | Pass                      | (EN 1847)                            |
| <b>Artificial Ageing</b>              | Pass                      | (EN 1296)<br>(EN 1931)               |
| <b>Water Vapour Transimission</b>     | ≥ 1800 m                  | (EN 1931)                            |
| <b>Water Tightness</b>                | Pass                      | (EN 1928)                            |

## SYSTEM INFORMATION

|                         |   |
|-------------------------|---|
| <b>System Structure</b> | The following products must be considered for use depending on roof design: |
|-------------------------|---|

|                                |                                    |
|--------------------------------|------------------------------------|
| <b>Deck type</b>               | <b>Metal</b>                       |
| Primer                         | SikaRoof® Primer-600 or Primer-610 |
| Consumption                    | ~100 g/m <sup>2</sup>              |
| Wind Uplift design load (Max)* | 2,4 kN/m <sup>2</sup>              |
| <b>Deck type</b>               | <b>Concrete / cementitious</b>     |
| Primer                         | SikaRoof® Primer-600 or Primer-610 |
| Consumption                    | ~200– 400 g/m <sup>2</sup>         |
| Wind uplift design load (Max)* | 2,8 kN/m <sup>2</sup>              |
| <b>Deck type</b>               | <b>Plywood, timber boards, OSB</b> |
| Primer                         | SikaRoof® Primer-600 or Primer-610 |
| Consumption                    | ~200 g/m <sup>2</sup>              |
| Wind uplift design load (Max)* | 2,8 kN/m <sup>2</sup>              |

Very porous substrate may require 2 coats of Primer-600: ~200–500 g/m<sup>2</sup> Primer required for fully adhered roof build-up systems.

Consumption figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc. Refer to individual product data sheets for specific guidance.

\* Wind uplift design load based on self adhesion strength

Ancillary products:

- Sika RoofBond to bond insulation board onto S-Vap 5000 E SA
- Sika-Trocal® L 100
- Sarna Cleaner
- Sarnafil® T Prep
- Solvent T 660

## Compatibility

The substrate can be one of the following materials: Concrete, lightweight concrete, screed, Oriented Strand Boards (OSB), plywood panels, timber boards, metal decking and Sikatherm PIR GT. For other substrate types contact Sika Technical Services for additional information.

## 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.

## LIMITATIONS

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

The limiting factor in the wind up-lift resistance of the adhered roofing assembly will be the adhesion strength of the S-Vap 5000 E SA to the substrate.

- S-Vap 5000 E SA must only be used in combination with SikaRoof® Primer-600 or Primer-610.
- Do not use as permanent waterproofing.
- Do not use as a roofing membrane only as a vapour barrier or carrier layer for liquid applied membranes.

## 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 supporting structure must be of sufficient structural strength to apply all new and existing layers of the roof build-up and the complete roof system must be designed and secured against wind uplift loadings. The substrate must be uniform, firm, smooth and free of any sharp protrusion or burrs, clean, dry, free of grease, bitumen, oil, dust and loose surface sand / gravel dressing.

### SUBSTRATE PREPARATION

Use the appropriate preparation equipment to achieve the required substrate quality. If dust exists on the surface, it must be completely re-

moved before application of the product by suitable dust extraction equipment.

## APPLICATION

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

### Priming

Apply where required to the prepared substrate, Primer-600 at the required consumption.

### Alignment

Profiled metal decks:

The sheets must be laid in the direction of the deck ribs. Where side/longitudinal overlap seams occur, they must be fully supported by aligning over the full surface of a top rib.

All deck types:

Unroll a sheet and align into the correct position. Subsequent sheets must be rolled out and aligned taking into consideration the overlap seam requirements.

### Overlap seams

Side/longitudinal: 75 mm

End / T-joints: 75 mm

To achieve effectively sealed overlap seams, they must be rolled down firmly with a pressure roller or by applying pressure. If seams are not immediately closed after unrolling the S-Vap 5000 E SA, all seams must be cleaned with cleaner Sika Trocal L-100, Sarna Cleaner or Sarnafil T Prep. Allow the cleaners to evaporate completely before bonding.

Profiled metal decks:

At the end of the rolled sheet, an additional 20 cm wide S-Vap 5000 E SA support strip must be applied. It must be positioned so it aligns perpendicular to the deck rib direction. This provides a continuous support over the ribs allowing the ends of the sheets to be fully bonded.

### Bonding

Check the alignment of the sheets before bonding. Re-align where necessary. At one end of the sheet, peel away part of the release liner from the underside and bond this part to the substrate. Then peel away the release liner sideways from the rest of the S-Vap 5000 E SA sheet to allow it to bond to the substrate. Then roll the entire surface area of the applied membrane with a suitable heavy roller.

At T-joints the edge of the middle, covered sheet is to be bevelled at 45°. Using a small pressure roller, all overlaps including the steps at the bevels must be firmly pressed together after being bonded into position.

### Detailing

All details such as internal and external corners, up-stands, vent pipes, support metalwork etc. must be

cut and sealed effectively. S-Vap 5000 E SA must always be attached on the warm side of the thermal insulation. The upper edge of the S-Vap 5000 E SA must be taken up to the top edge / surface of the insulation.

### Temporary waterproofing

If S-Vap 5000 E SA is to provide a temporary waterproofing layer during construction (up to 4 weeks), a slope of at least 2 % (~ 1,1°) must be provided to ensure drainage with no standing water. Roof drainage lines must be adequately sized.

If S-Vap 5000 E SA is applied between +5 °C and +10 °C ambient temperature, it is necessary to have all the seams heated first using hot air welding equipment e.g. Leister Triac. Equipment must be set at ~+300 °C with a speed of ~5 m/min before being rolled down firmly with a pressure roller.

## 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.

## 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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#### Product Data Sheet

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