# SikaShield® VB E71 PE SA 3 kg/m²

Self-adhesive aluminum-reinforced bituminous vapour control layer

## PRODUCT DESCRIPTION

SikaShield® VB E71 PE SA 3 kg/m² is an SBS-modified, self-adhesive bituminous vapour control layer. It weighs 3 kg/m² and is flexible at -25 °C. It is reinforced with aluminium foil and a dimensionally stable non-woven polyester inlay to provide an effective barrier against the passage of vapour. The top surface is covered with a polyethylene foil to bond the insulation panels with molten bitumen or by mechanical fixation. The underside has a removable liner over the adhesive compound for easy application.

## USES

The Product is used as a waterproofing membrane for:
▪ Flat and sloped roofs
▪ High humidity roof spaces (+20 °C, ≤ 80 % RH)
The Product is used as a:
▪ Vapour control layer

## CHARACTERISTICS / ADVANTAGES

▪ Flame-free application
▪ Highly flexible in cold temperatures
▪ Good adhesion in cold temperatures
▪ High durability
▪ Fast and easy installation

## APPROVALS / STANDARDS

▪ CE marking and declaration of performance based on EN 13970:2004/A1:2006 Flexible sheets for waterproofing — Bitumen water vapour control layers — Definitions and characteristics

## PRODUCT INFORMATION

| Chemical Base | Composition | SBS modified bitumen | |
|---|---|---|---|
| | Reinforcing material | Aluminium foil and non-woven polyester fabric stabilised with glass fibre | |
| Packaging | Roll width | 1.0 m | (EN 1848-1) |
| | Roll length | 10.0 m | |
| | Refer to the current price list for available packaging variations. | | |
| Shelf Life | 12 months from date of production | | |

| Storage Conditions | The Product must be stored in original unopened and undamaged packaging in dry conditions and temperatures between +5 °C and +35 °C. Protect the Product from direct weather exposure and sunlight. Store in a vertical position. Pallets may be stacked on top of the rolls if all following conditions are met:<br>▪ The rolls have a wooden board on top, separating them from the pallet above.<br>▪ The weight of the pallet above is equal to or less than the weight of the rolls.<br>Always refer to packaging. |
|---|---|

| Appearance / Colour | Top surface | Polyethylene foil | |
|---|---|---|---|
| | Bottom Surface | Removable foil | |

| Mass per unit area | Mass per unit area | 3.0 kg/m² ± 0.3 kg/m² | (EN 1849-1) |
|---|---|---|---|

## TECHNICAL INFORMATION

| Maximum tensile force | Longitudinal (MD) | 250 N/50 mm ± 50 N/50 mm | (EN 12311-1) |
|---|---|---|---|
| | Transversal (CMD) | 120 N/50 mm ± 24 N/50 mm | |

| Elongation at maximum tensile force | Longitudinal (MD) | 15 % ± 5 % | (EN 12311-1) |
|---|---|---|---|
| | Transversal (CMD) | 20 % ± 5 % | |

| Resistance to Tearing (nail shank) | Longitudinal (MD) | 100 N ± 30 N | (EN 12310-1) |
|---|---|---|---|
| | Transversal (CMD) | 100 N ± 30 N | |

| Joint Shear Resistance | Longitudinal (MD) | 250 N/50 mm ± 50 N/50 mm | (EN 12317-1) |
|---|---|---|---|
| | Transversal (CMD) | 120 N/50 mm ± 24 N/50 mm | |

| Flexibility at low temperature | ≤ -25 °C | | (EN 1109) |
|---|---|---|---|

| Water Tightness | Method B, 24 hours at 60 kPa | Pass | (EN 1928) |
|---|---|---|---|

| Diffusion Resistance to Water Vapour | Resistance factor, Method B, tested at +23 °C and 75 % r.h. | $\mu = 1\ 500\ 000 \pm 300\ 000$ | (EN 1931) |
|---|---|---|---|

| External Fire Performance | $B_{roof}$ t4 | (EN 13501-5) |
|---|---|---|

| Reaction to Fire | Class E | (EN 13501-1) |
|---|---|---|

## APPLICATION INFORMATION

| Ambient Air Temperature | Maximum | +30 °C |
|---|---|---|
| | Minimum | +5 °C |

| Relative Air Humidity | Maximum | 80 % |
|---|---|---|

| Substrate Temperature | Maximum | +30 °C |
|---|---|---|
| | Minimum | +5 °C |

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# 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.

# ECOLOGY, HEALTH AND SAFETY

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 this 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

SYSTEM DESIGN
Consider the following when designing the system:
- The supporting structure must be of sufficient structural strength to support all new and existing layers of the system build-up.
- If used as a roof system, the complete system must be designed to withstand and be secured against wind uplift loadings.

SUBSTRATE CONDITION
The substrate surface must be uniform, firm, smooth and free of any sharp protrusion or burrs, clean, dry, free of grease, laitance, oil, dust and loosely adhering particles.

## SUBSTRATE PREPARATION

PRIMING
**Primer selection**
Note: For information on selecting the appropriate primer, contact Sika technical service.
1. Apply the appropriate Sika® primer with the required consumption onto the prepared dry surface.Note Refer to the individual Product Data Sheet of the primer.
2. Allow the primer to dry before membrane installation.

## APPLICATION

IMPORTANT
**Unrolling at low temperatures**
At low temperatures, the membrane becomes less flexible.
1. Be careful when unrolling to avoid damaging the membrane.

IMPORTANT
**Damage through footwear**
Footwear with spikes or sharp protrusions may puncture the membrane.
1. Use footwear with a flat profile when walking over the membrane.

IMPORTANT
**Application on sloped surfaces**
For slopes with an inclination greater than 15 %, multi-layered roofs must be carefully designed and, if necessary, integrated with mechanical fastenings.

IMPORTANT
**Application at less than +5 °C**
When applying the membranes at temperatures lower than +5 °C, use heating equipment to ensure that the substrate temperature is within the given temperature range.

IMPORTANT
**Application in humid or wet conditions**
When applying the membranes in wet or humid conditions, use heating equipment to ensure that the substrate is dry before application.

IMPORTANT
**Vertical application**
Sheets applied vertically must be secured mechanically at the end.

**Seasonal symbol**
Note: If a seasonal symbol is printed on the roll's label, it is advisable to use the membrane during the indicated season.

**Tackiness at high temperatures**
Note: When laying the membrane at high temperatures, the integral adhesive will become 'tacky' and may restrict laying operations.

ALIGNMENT
IMPORTANT
**Avoid coinciding joints**
To avoid coinciding joints, lay the membranes parallel to one another. When applying on another bituminous membrane, make sure to straddle the overlaps of the previous layer.
1. Unroll the membrane.
2. Align the membrane.
3. Re-roll the membrane before application.

MEMBRANE OVERLAPS
1. Overlap the membranes by a minimum of 100 mm on the sides and 150 mm on each end or as specified by the supplier.
2. At the end overlap, cut off a corner measuring 100 mm per side at an angle of 45°.

SELF-ADHESIVE BONDING
1. At one end of the sheet, peel away part of the release liner from the underside and bond this end to the substrate.
2. Continue to peel away the release liner sideways from the rest of the sheet membrane and bond it to the substrate.
3. Roll the entire surface area of the applied membrane with a heavy roller to ensure any air bubbles are removed.

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### Suitable substrates

▪ Concrete
▪ Wood
▪ Metal
▪ Bituminous membranes with a smooth surface
▪ Tiles
▪ Brick masonry
▪ Cementitious screeds
▪ Plasterboards
▪ Plasters
▪ Foamed concrete blocks, if properly primed. Contact Sika® Technical Services for more information.

DETAILING

1. Use a sharp knife to cut in all details such as internal and external corners, upstands, vent pipes, drains, and support metalwork.

Refer to the relevant method statement for further information on detailing.

## MAINTENANCE

Check the functionality of the auxiliary works, flashings, drainage outlets, and overflow pipes.
Remove any leaves, moss and other vegetation, which could cause ponding on the roof and overload the drainage system.
To maintain the function of the roof waterproofing membrane during its lifespan, it is advisable to arrange periodically for inspection of the membrane and detailing.

## 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 the 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.

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**Product Data Sheet**
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