BUILDING TRUST

PRODUCT DATA SHEET

SikaShield® VB E71 PE SA 2,4 mm

Self-adhesive air & vapour control layer

PRODUCT DESCRIPTION

SikaShield® VB E71 PE SA 2,4 mm is an SBS modified bituminous, self-adhesive air & vapour control layer with a thickness of 2.4 mm and flexibility at -25°C. It is reinforced with aluminium foil and a dimensionally stable non-woven polyester inlay. The underside has a removable liner over the adhesive compound for an easy application. It can be applied to various substrates. Top surface finish: sand.

USES

Roof waterproofing membrane for:
- Flat and sloping roofs
- As an air & vapour control layer

Roof deck substrate types:
- Metal
- Timber
- Concrete

CHARACTERISTICS / ADVANTAGES

- High resistance to water vapour diffusion
- Fast and easy installation from self-adhesive properties
- Good watertightness
- High elongation
- High mechanical properties
- Good adhesion at low temperatures
- Accommodates a wide range of roof system, deck types and substrate combinations
- Choice of substrates primers

APPROVALS / STANDARDS

CE marking and Declaration of Performance to EN 13970 – Bituminous layers for Vapour Control — Definitions and characteristics

PRODUCT INFORMATION

Chemical Base	Composition	SBS modified bitumen	
	Reinforcing material	Aluminium foil and a non-woven polyester fabric stabilised with fibreglass	
Packaging	Roll width	1.0 m	(EN 1848-1)
	Roll length	10.0 m	
Appearance / Colour	Top surface	Sanded bitumen	
	Backing	Release liner	
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. Always refer to packaging.		

Effective Thickness	Effective thickness	2.4 mm ± 0.2 mm	(EN 1849-2)
Weight	Approximately 3kg/m²		
Tear Strength	Longitudinal (MD) Transversal (CMD)	100 N ± 30 N 100 N ± 30 N	(EN 12310-1)
Reaction to Fire	Class E		(EN 13501-1)
Water Tightness	Method B, 24 hours at 60 kPa	Pass	(EN 1928)
Water permeability	μ = 1 500 000 -20 %		(EN 1931/EN 1296)
Flexibility at low temperature	≤ -25 °C		(EN 1109)
Maximum tensile force	Longitudinal (MD) Transversal (CMD)	250 N/50 mm ± 50 N/50 mm 120 N/50 mm ± 24 N/50 mm	(EN 12311-1)
Elongation at maximum tensile force	Longitudinal (MD) Transversal (CMD)	15 ± 10 [%] 20 ± 10 [%]	(EN 12311-1)

APPLICATION INFORMATION

Ambient Air Temperature	Maximum Minimum	+40 °C +5 °C
Relative Air Humidity	Maximum	80 %
Substrate Temperature	Maximum Minimum	+40 °C +5 °C

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

Application of self-adhesive membranes
Note: Always make reference to local regulations, standards, guidelines and established practice when using bituminous membranes.

ECOLOGY, HEALTH AND SAFETY

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

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

Installation procedure
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 the appropriate primer, Sika® Primer 600 or Sika® Primer 610, at the correct consumption to the prepared dry surface and allow to dry before next application stage. Refer to the individual Product Data Sheets.

APPLICATION

IMPORTANT

Unrolling at low temperatures

At low temperatures, the membrane becomes less flexible.

1. Be careful when unrolling to avoid damaging the membrane.
2. Laying the membrane at temperatures ≤+10 °C and or in high humidity conditions, use suitable heat producing equipment to heat and / or dry the substrate.

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.

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°.

BONDING

1. Check the alignement of the sheet before bonding. Re-align where necessary.
2. At one end of the sheet, peel away part of the silicone release liner from the underside and bond this part to the substrate.
3. Peel away the release liner sideways from the rest of the SikaShield® VB E71 PE SA 2,4 mm sheet to allow it to bond on the substrate.
4. Roll the entire surface are of the applied membrane with a suitable heavy roller ensuring any air bubbles are removed.

When laying insulating panels over the membrane, they must be mechanically fixed to the substrate through the membrane.

Suitable substrates for bonding

- Primed Concrete
- Plywood panels, timber boards, OSB
- Metal

DETAILING

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

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

MAINTENANCE

Check the functionality of the auxiliary works, flashings, drainage outlets, overflow pipes etc.
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

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.

SIKA LIMITED
Watchmead
Welwyn Garden City
Hertfordshire, AL7 1BQ
Tel: 01707 394444
Web: www.sika.co.uk
Twitter: @SikaLimited