BUILDING TRUST

PRODUCT DATA SHEET

SikaShield® VB P41 S 3 mm

Bituminous Air & Vapour Control Layer (AVCL)

PRODUCT DESCRIPTION

SikaShield® VB P41 S 3 mm is an APP modified bituminous roofing air & vapour control layer with a thickness of 3 mm and flexible at -10 °C. It is reinforced with aluminium foil and glass fibre to provide a barrier to the passage of air and vapour. The top surface is coated with sand to improve the bond to insulation boards with cold adhesives. The underside of the product has a burn-off film for easy torch-application.

USES

The Product is used as an Air & Vapour Control Layer for:
- Flat and sloped roofs
- Only suitable for use on non-combustible substrates such as concrete or metal decks.

CHARACTERISTICS / ADVANTAGES

- Thickness: ~3,0 mm
- Top surface finish: sand
- Flexibility at -10 °C
- Good mechanical properties (tensile, tear, shear)
- High elongation
- High dimensional stability
- Easy to install by torching

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	APP modified bitumen	
	Reinforcing material	Aluminium foil and 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.		
Appearance / Colour	Top surface	Sand	
	Bottom Surface	Polyethylene foil	
Shelf Life	24 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: ▪ The rolls have a wooden board on top, separating them from the pallet above. ▪ The weight of the pallet above is equal to or less than the weight of the rolls. Always refer to packaging.		
Effective Thickness	Effective thickness	3.0 mm ± 0.2 mm	(EN 1849-2)
Surface	Sand surfaced. SikaShield® VB P41 S 3 mm can be used as a temporary waterproofing layer for up to 4 weeks in accordance with the Product Data Sheet.		

TECHNICAL INFORMATION

Tensile Strength	Longitudinal (MD) Transversal (CMD)	450N/50 mm ± 90 N/50 mm 350N/50 mm ± 70 N/50 mm	(EN 12311-1)
Elongation	Longitudinal (MD) Transversal (CMD)	3 % ± 1 % 3 % ± 1 %	(EN 12311-1)
Tear Strength	Longitudinal (MD) Transversal (CMD)	70 N ± 21 N 70 N ± 21 N	(EN 12310-1)
Reaction to Fire	Class E		(EN 13501-1)
Permeability to Water Vapour	μ = 1 500 000 ± 300 000		(EN 1931)
Water Tightness	Method B, 24 hours at 60 kPa	Pass	(EN 1928)
Flexibility at low temperature	≤ -10 °C		(EN 1109)

APPLICATION INFORMATION

Ambient Air Temperature	Maximum Minimum	+40 °C +5 °C
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.

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.
- The complete system must be designed to withstand wind uplift.

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

1. Apply the specified 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.

Damage through foot traffic

Footwear with sharp protrusions may puncture the membrane.

1. Use footwear with a flat profile when walking over the membrane.

Damage through overheating

The polyester melts at +260 °C. If it is damaged through overheating, the membrane becomes unusable.

1. Keep moving the flame while torching to avoid overheating the membrane.

Reduced adhesion through insufficient heating

Make sure to heat the membrane sufficiently. If it is not sufficiently heated, the adhesion to the substrate, between layers or on the overlaps will be reduced.

Application on sloped surfaces

For slopes with an inclination greater than 5°, roofs must be carefully designed and, if necessary, integrated with mechanical fastenings.

ALIGNMENT

MEMBRANE LAPS

1. Overlap the membranes by a minimum of 100 mm on the sides and 150 mm on each headlap or as specified by the supplier.

DETAILING

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

TORCHING

1. Heat the substrate and the backing film on the underside of the membrane with a gas torch.
   - When the backing film starts to melt, the membrane is ready to stick.
2. Roll the heated membrane forward and press it firmly against the substrate to bond it.
3. Make sure a bead of melted bitumen is visible along the full length of the overlap sides and ends when laying.

Suitable substrates for torching

- Concrete decks
- Existing bituminous roofs
- Brick/Blockwork
- Cementitious screeds
- Metal decks

Note: For other substrates, please contact Technical Services.

MAINTENANCE

The roof should be maintained in line with recommendations as detailed within BS6229:2018. For further advice, please contact Technical Services.

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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