

PRODUCT DATA SHEET

SikaShield® VB P42 S 3 mm

118 mil bituminous vapor barrier

PRODUCT DESCRIPTION

SikaShield® VB P42 S 3 mm is a 118 mil thick APP modified bituminous roofing vapor control layer. It is reinforced with glass fiber to provide a barrier to the passage of vapor. The top surface is covered with sand to improve the bonding of the overlying layer or to bond the insulation boards with cold adhesives or by mechanical fixation.

USES

The Product is used as a vapor barrier for:

- Flat and sloped roofs
- High humidity roof spaces (+20 °C / 68 °F ≤ 80 % RH)

CHARACTERISTICS / ADVANTAGES

- It can be left exposed for up to six (6) months
- Vapor diffuser and waterproofing incorporated in the same membrane
- High resistance to water vapor movement
- Easy to install
- Fully bonded
- Good durability

APPROVALS / STANDARDS

- FM Global
- Underwriters Laboratory (UL)
- Tested according to ASTM E2178
- Tested according to ASTM E96

PRODUCT INFORMATION

Chemical Base	APP modified bitumen		
Reinforcing Material	Glass fiber		
Packaging	Roll width	39.4" (1.0 m)	(EN 1848-1)
	Roll length	32.8 ft (10.0 m)	
Refer to the current price list for available packaging variations.			
Shelf Life	36 months from date of production		
Storage Conditions	The Product must be stored in original unopened and undamaged packaging in dry conditions and temperatures between 41°F (5°C) and 95°F (35°C). Store in a vertical 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.		
Appearance / Color	Top surface	Sand	
	Bottom Surface	Polyethylene foil	
Top surface	Sand		
Bottom Surface	Type	Application method	
	Polyethylene Foil	Torch	
	Non-woven polypropylene	Cold and Mop	
Thickness	118 mil (3.0 mm)		(ASTM D5147)
Weight	73 lbs/roll		

TECHNICAL INFORMATION

Maximum tensile force	Longitudinal (MD)	50 lbf/in	(ASTM D5147)
	Transversal (CMD)	23 lbf/in	
Elongation at maximum tensile force	Longitudinal (MD)	3%	(ASTM D5147)
	Transversal (CMD)	3%	
Tear Strength	Longitudinal (MD)	95 lbf	(ASTM D5147)
	Transversal (CD)	55 lbf	
Joint Shear Resistance	Longitudinal (MD)	34.26 lbf/in (300 N/50 mm)	(EN 12311-1)
	Transversal (CMD)	22.84 lbf/in (200 N/50 mm)	
Dimensional Stability	Longitudinal (MD)	0.0 %	(ASTM D5147)
	Transversal (CMD)	0.1 %	
Low Temperature Bend	≤ 14 °F (-10 °C)		(ASTM D5147)
Flow resistance	≥ 265 °F (130 °C)		(ASTM D5147)
Permeability to Water Vapor	0.007 perms (0.377 ng/Pa·s·m ²)		(ASTM E96)
Permeability to air	0.0000 L/s·m ² at 75 Pa		(ASTM E2178)

APPLICATION INFORMATION

Ambient Air Temperature	Minimum	41°F (5°C)
	Maximum	104°F (40°C)
Relative Air Humidity	Maximum	80 %
Substrate Temperature	Minimum	41°F (5°C)
	Maximum	104°F (40°C)

BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

AVAILABILITY/WARRANTY

LIMITATIONS

- At low temperatures, the membrane becomes less flexible. Be careful when unrolling to avoid damaging the membrane.
- Footwear with spikes or sharp protrusions may puncture the membrane. Use footwear with a flat profile when walking over the membrane.
- 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. If the membrane does not adhere to other elements, lift and retorch the unbonded areas.
- When applying the membranes at temperatures lower than 41°F (5°C), use heating equipment to ensure that the substrate temperature is within the given temperature range.
- For slopes with an inclination greater than 15 %, multi-layered roofs must be carefully designed and, if necessary, integrated with mechanical fastenings.
- If a seasonal symbol is printed on the roll's label, it is advisable to use the membrane during the indicated season.
- When laying the membrane at high temperatures, the integral adhesive will become 'tacky' and may restrict laying operations.

ENVIRONMENTAL, 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).

REGULATION (EC) NO 1907/2006 - REACH

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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.

APPLICATION

ALIGNMENT

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 4" (100 mm) on the sides and 6" (150 mm) on each end or as

- specified by the supplier.
2. At the end overlap, cut off a corner measuring 4" (100 mm) per side at an angle of 45°.

TORCHING

1. Heat the substrate and the backing film on the underside of the membrane with a gas burner.
2. When the backing film starts to melt, the membrane is ready to stick.
3. Roll the heated membrane forward and press it firmly against the substrate to bond it.
4. 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
- Perlite screed
- Bituminous membranes with a smooth surface
- Coatings (check the compatibility)
- Brick masonry
- Cementitious screeds

HOT ADHESIVE BONDING (MOPPING)

Apply the hot melt at the required consumption onto the surface.

1. Note: Refer to the individual Product Data Sheet of the hot melt adhesive.
2. Apply the membrane onto the hot melt while still hot.
3. Roll the surface of the applied membrane with a roller from the center to the edge to remove any air bubbles.
4. Seal the overlaps with hot melt or by torching.

Suitable substrates for mopping

- Concrete
- Bituminous membranes with a smooth surface
- Coatings (check the compatibility)
- Brick masonry
- Cementitious screeds

NOTE: Different hot melt products are compatible with this membrane. Contact Sika® Technical Services for information on choosing the right one for your project.

COLD ADHESIVE BONDING

1. Apply the recommended adhesive at the required consumption onto the surface.
2. Apply the membrane onto the adhesive while still fresh. It cannot be cured.
3. Roll the surface of the applied membrane with a roller

4. Seal the overlaps with hot melt or by torching.

Suitable substrates for cold adhesion

- Concrete
- Metal
- Perlite screed
- Bituminous membranes with a smooth surface
- Brick masonry
- Cementitious screeds
- Plasterboards
- Plasters

DETAILING

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.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within the product's shelf

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