

PRODUCT DATA SHEET

SikaShield® HB79 MG 4 mm

Hybrid bituminous membrane surfaced with granules and flexible at -25 °C

PRODUCT DESCRIPTION

SikaShield® HB79 MG 4 mm is an SBS and APAO modified bituminous roof waterproofing membrane with a thickness of 4 mm. The upper layer is APAO modified, which provides good heat resistance, the under layer is SBS modified, increasing the elongation and cold flexibility properties. It is reinforced with a dimensionally stable composite inlay of a fiberglass matt compressed between two layers of non-woven spunbond polyetser fabric and is flexible at -25 °C. The top surface is coated with mineral granules, which allows the permanent exposure to UV radiation. The underside of the product has a burn-off film for easy torch-application.

USES

The Product is used as a waterproofing membrane for:

- Balconies and terraces
- Flat or sloped roofs with up to 15 % gradient

The Product is used as a:

- Exposed single-layer or as a top sheet in a multi-layer roofing system

CHARACTERISTICS / ADVANTAGES

- Combines the advantages of APAO and SBS bitumen
- Can be painted immediately after application
- Easy to install by torching method
- Fully bonded
- Highly flexible in cold temperatures
- High durability
- High heat resistance
- Very good mechanical properties (tensile, tear, shear)
- Tiles can be placed directly onto the membrane

APPROVALS / STANDARDS

- CE marking and declaration of performance based on EN 13707:2004+A2:2009 Flexible sheets for waterproofing — Reinforced bitumen sheets for roof waterproofing — Definitions and characteristics

PRODUCT INFORMATION

Chemical Base	Composition	SBS and APAO modified bitumen	
	Reinforcing material	Composite inlay of a fibreglass matt compressed between two layers of non-woven spunbond polyester fabric	
Packaging	Roll width	1.0 m	(EN 1848-1)
	Roll length	6.0 m ± 0.6 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 +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.

Appearance / Colour	Top surface	Mineral Granules
	Bottom surface	Polyethylene film
	Top layer colour	Refer to current price list for color variations

Effective Thickness	Effective thickness	4.0 mm ± 0.2 mm	(EN 1849-1)
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TECHNICAL INFORMATION

Maximum tensile force	Longitudinal (MD)	750 N/50 mm ± 150 N/50 mm	(EN 12311-1)
	Transversal (CMD)	650 N/50 mm ± 130 N/50 mm	

Elongation at maximum tensile force	Longitudinal (MD)	50 % ± 15 %	(EN 12311-1)
	Transversal (CMD)	50 % ± 15 %	

Resistance to Tearing (nail shank)	Longitudinal (MD)	250 N ± 75 N	(EN 12310-1)
	Transversal (CMD)	250 N ± 75 N	

Joint Shear Resistance	Longitudinal	650 N/50 mm ± 130 N/50 mm	(EN 12317-1)
	Transversal	550 N/50 mm ± 110 N/50 mm	

Flexibility at low temperature	≤ -25 °C	(EN 1109)
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Water Tightness	Method B: 24 hours at 60 kPa	Pass	(EN 1928)
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External Fire Performance	B _{roof} t4	(EN 13501-5)
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Reaction to Fire	Class E	(EN 13501-1)
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APPLICATION INFORMATION

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

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

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.

FURTHER DOCUMENTS

Application of torch-applied membranes

Note: Always make reference to local regulations, standards, guidelines and established practice when using torch-applied membranes.

- Method Statement - Roofing build-up with bituminous membranes

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

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.

IMPORTANT

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.

1. If the membrane does not adhere to other elements, lift and retorch the unbonded areas.

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 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°.

FASTENING

When used as a roofing sheet, the membrane can be mechanically fixed to the substrate by using the correct type of fasteners.

The number of fixings, type and position depend on wind uplift forces to be resisted, pull-out strength of the fixing screws, the elastic limit of the membrane and the appropriate safety factors.

Contact Sika Technical Service for additional information.

Suitable substrates for fastening

- Concrete
- Wood
- Metal
- Perlite screed
- Bituminous membranes
- Coatings (check the compatibility)

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

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.

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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