

PRODUCT DATA SHEET

SikaShield® VMS P55 MG 4 kg/m²

Elastoplastomeric bituminous membrane with heat activated strips for damp substrates

PRODUCT DESCRIPTION

SikaShield® VMS P55 MG 4 kg/m² is an elastoplastomeric modified bituminous roofing membrane with a weight of 4 kg/m². It has heat activated strips on the underside with a bonding area of 40 %, which allows the diffusion of residual moisture from damp substrates. It is reinforced with a non-woven polyester fabric dimensionally stabilised with glass fibre and is flexible at -15 °C. The top surface is coated with mineral granules as a base for laying ceramic tiles or cement mortar.

USES

The Product is used as a waterproofing membrane for:

- Balconies and terraces
- Flat or sloping roofs with up to 15 % gradient
- New construction and refurbishment projects

The Product is used as a:

- Single layer under heavy protection

CHARACTERISTICS / ADVANTAGES

- Adhesive strips reduce the strain from cyclic movement across the substrate
- Can be applied over damp surfaces at low temperatures
- Tiles can be placed directly onto the membrane
- Highly flexible in cold temperatures
- Very good mechanical properties (tensile, tear, shear)
- Provides consistent level and thickness
- Quick to apply without removal or disposal of the old substrate
- Rainproof immediately after application

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 Reinforcing material	SBS and APP modified bitumen non-woven polyester fabric dimensionally stabilised with glass fibre
Packaging	Roll width Roll length	1.0 m 10.0 m (EN 1848-1)
	Refer to current price list for 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. 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 / Colour	Top surface	Mineral Granules
	Bottom surface	Strips covered by a polyethylene foil
	Top layer colour	Grey
Mass per unit area	Mass per unit area	4.0 kg/m ² ± 0.4 kg/m ² (EN 1849-1)

TECHNICAL INFORMATION

Maximum tensile force	Longitudinal (MD)	700 N/50 mm ± 140 N/50 mm	(EN 12311-1)
	Transversal (CMD)	500 N/50 mm ± 100 N/50 mm	
Elongation at maximum tensile force	Longitudinal (MD)	40 % ± 15 %	(EN 12311-1)
	Transversal (CMD)	45 % ± 15 %	
Resistance to Tearing (nail shank)	Longitudinal (MD)	200 N ± 60 N	(EN 12310-1)
	Transversal (CMD)	200 N ± 60 N	
Joint Shear Resistance	Longitudinal	600 N/50 mm ± 120 N/50 mm	(EN 12317-1)
	Transversal	400 N/50 mm ± 80 N/50 mm	
Flexibility at low temperature	≤ -15 °C		(EN 1109)
Water Tightness	Method B: 24 hours at 60 kPa	Pass	(EN 1928)
Reaction to Fire	Class E		(EN 13501-1)

APPLICATION INFORMATION

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

- Guidelines and good practice for torch-applied membranes
- Method Statement - Roofing Build-up with Bituminous Membranes
- Method Statement - Roofing Renovation 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 roof system:

- The supporting structure must be of sufficient structural strength to support all new and existing layers of the roof build-up.
- The complete roof system must be designed to withstand and be secured against wind uplift loadings.
- The wind uplift resistance of the adhered roofing assembly is limited by the adhesion strength of the Product to the substrate.

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

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

Damage through overheating

The polyester reinforcement 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.

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°.

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

Note: Detailing must follow the recommended guidelines and good practice for torch-applied membranes.

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

IMPORTANT Roof ventilators are required to assist with controlling moisture and limiting condensation. Refer to national and local regulations together with manufacturers installation instructions or contact Sika Technical Services for more information.

APPLICATION OF THE TILES OVER THE MEMBRANE

Preconditions

The bituminous membrane has been applied.

1. Seal the overlaps, joints and the perimeter with a double coat of Sikalastic®-685 reinforced with a non-woven polyester or glass fabric.
2. Apply the tiles adhesive over it and proceed with the new floor.

Note: Refer to the Product Data Sheet.

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

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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