BUILDING TRUST

PRODUCT DATA SHEET

SikaShield® P35 MG IN 3 mm

Atactic Poly Propylene (APP) modified bituminous membrane with mineral granules and flexible at -5 °C (Formerly SikaBit® T-130 MG)

DESCRIPTION

SikaShield® P35 MG IN 3 mm is an APP modified bituminous waterproofing membrane with a thickness of 3 mm. It is reinforced with a non-woven polyester fabric and is flexible at -5 °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 sloping roofs with up to 15 % gradient
- Bridge decks under asphalt wearing layer
- Horizontal reinforced concrete slabs, decks, podiums and protrusions

The product is used as a:
- Exposed single-layer or as a top sheet in a multi-layer roofing system

CHARACTERISTICS / ADVANTAGES

- Decorative mineral granules
- Can be painted immediately after application
- Fully bonded
- Long term flexibility
- Excellent water tightness
- Very good mechanical properties (tensile, tear, shear)
- Can be handled in warmer temperatures easily
- Low water absorption
- Easy to install by torching method
- Capable of withstanding thermal and structural stresses
- Good durability and performance under long term ageing
- Tiles can be placed directly onto the membrane

PRODUCT INFORMATION

Chemical Base	Composition	APP modified bitumen	
	Reinforcing material	Non-woven polyester fabric	
Packaging	Roll width	1.0 m	(EN 1848-1)
	Roll length	10.0 m	
	Rolls are wrapped on cardboard coil to reduce transit and storage damage.		
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.		

Appearance / Colour	Top surface	Mineral granules / Grey	
	Bottom surface	Polyethylene film / Black	
Thickness	3 mm (+0.3 mm / -0.2 mm)		(EN 1849-1)

TECHNICAL INFORMATION

Resistance to Impact	≥ 1000 mm		(EN 12691)
Resistance to Static Load	≥ 10 kg (Method A)		(EN 12730)
Tensile Strength	Longitudinal (MD)	(600 ± 120) N/50mm	(EN 12311-1)
	Transversal (CMD)	(450 ± 90) N/50mm	
Elongation	Longitudinal (MD)	(45 ± 15) %	(EN 12311-1)
	Transversal (CMD)	(45 ± 15) %	
Tear Strength	Longitudinal (MD)	(400 ± 100) N	(ASTM D5147)
	Transversal (CMD)	(300 ± 100) N	
Joint Shear Resistance	Longitudinal	(600 ± 120) N/50mm	(EN 12317-1)
	Transversal	(400 ± 120) N/50mm	
Flexibility at low temperature	≤ -5 °C		(EN 1109)
Softening Point	≥ 150 °C		(ASTM D36)
Flow Resistance	No flow at +120 °C, 2 h		(EN 1110)
Water Tightness	≥ 60 kPa (Method B, 24 h)		(EN 1928)

APPLICATION INFORMATION

Ambient Air Temperature	+5 °C min. / +40 °C max.
Substrate Temperature	+5 °C min. / +40 °C max.
Substrate Moisture Content	< 6 %

BASIS OF PRODUCT DATA

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.

FURTHER DOCUMENTS

- Guidelines and good practice for torch-applied membranes
- Method Statement - Bituminous Membranes for Roofing Build-up

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

SUBSTRATE QUALITY

SYSTEM DESIGN
Consider the following when designing the waterproofing 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

PREPARATION
New concrete should be cured for at least 28 days and should have a pull off strength ≥ 1.5 N/mm². Cementitious or mineral based substrates must be prepared mechanically to remove cement laitance and to achieve an open textured surface. Loose friable material and weak concrete must be completely removed and surface defects such as blowholes and voids must be fully exposed. The concrete must be carefully assessed for moisture content, air entrapment, and surface finish prior to any primer application.

PRIMING
Primer selection
Note: For information on selecting the appropriate primer, contact Sika Technical Service.
1. Apply the appropriate SikaShield® 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 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.

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 re-torch the unbonded areas.

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 with staggering. When applying on another bituminous membrane, make sure to stagger 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 80-100 mm on the sides and 150 mm on each end.
2. At the end overlap, cut off a corner measuring 80-100 mm per side at an angle of 45°.
3. Weld the overlaps with great care until you see a trickle of melted mixture about 10 mm wide coming out along the line of the overlap.

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
- Bituminous membranes with a smooth surface
- Coatings (check the compatibility)
- Plastered brick / block 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.

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 Philippines Inc.
888 Marcos Alvarez Ave.,
Talon V, Las Piñas City, Philippines 1747
Tel. No.: +63 2 8806-2875
Fax. No.:+63 2 8806-2883
Website: phl.sika.com