BUILDING TRUST

PRODUCT DATA SHEET

SikaShield® P35 PE EG 4 mm Gamma PLT

Plastomeric bituminous membrane surfaced with PE foil and flexible at -5 °C

DESCRIPTION

SikaShield® P35 PE EG 4 mm Gamma PLT is an APP modified bituminous waterproofing membrane with a thickness of 4 mm. It is reinforced with a non-woven polyester fabric and is flexible at -5 °C. The top surface is coated with a polyethylene foil, which ensures the bond of the overlying layer. The underside of the product has a burn-off film for easy torch-application.

USES

The Product is used as a waterproofing membrane for:
- Flat and sloping roofs under protective layers or ballast
- Wet areas
- Basements and other below ground structures
- Horizontal reinforced concrete slabs, decks, podiums and protrusions
- Vertical reinforced concrete walls

Please note:
- The Product is not suitable for roofs permanently exposed to UV radiation.

FEATURES

- Easy to install by torching method
- Fully bonded
- Good durability
- Good mechanical properties (tensile, tear, shear)

PRODUCT INFORMATION

Composition	Composition Reinforcing material	APP modified bitumen non-woven polyester fabric
Packaging	**Roll size**	
	Length	10,00 m ± 1%
	Width	1,00 m ± 1%
Appearance and colour	Top surface Bottom surface	Polyethylene film Polyethylene film
Shelf life	24 Months from date of production	
Storage conditions	Rolls must be stored in their original package, in vertical position and under cool and dry conditions. They must be protected from direct sunlight, rain, snow and ice.	
Effective thickness	4.0 mm ± 10%	(EN 1849-1)

Resistance to static loading	20 Kg		(EN 12730:2001)
Resistance to dynamic puncture	1750 mm		(EN 12691)
Resistance to tear	Longitudinal (MD) Transversal (CMD)	500 N ± 30% 400 N ± 30%	(ASTM 5147)
Joint shear resistance	Longitudinal Transversal	650 N/50 mm ± 25% 400 N/50 mm ± 25%	(EN 12317-1)
Watertightness	Method B: 24 hours at 60 kPa	Pass	(EN 1928)
Flexibility at low temperature	≤ -5 °C		(EN 1109)
Maximum tensile force	Longitudinal (MD) Transversal (CMD)	700 N/50 mm ± 25% 450 N/50 mm ± 25%	(EN 12311-1)
Elongation at maximum tensile force	Longitudinal (MD) Transversal (CMD)	(45±20)% (50±20)%	(EN 12311-1)
Ambient air temperature	Minimum Maximum	+5 °C +35 °C	
Substrate temperature	Minimum Maximum	+5 °C +40 °C	

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.

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.

- 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.
- Allow the primer to dry before membrane installation.

APPLICATION

IMPORTANT
Unrolling at low temperatures
At low temperatures, the membrane becomes less flexible.

- Be careful when unrolling to avoid damaging the membrane.

IMPORTANT
Damage through footwear
Footwear with spikes or sharp protrusions may puncture the membrane.

- 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.

- 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.

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

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.

- Unroll the membrane.
- Align the membrane.
- Re-roll the membrane before application.

MEMBRANE OVERLAPS

- Overlap the membranes by a minimum of 100 mm on the sides and 150 mm on each end.
- At the end overlap, cut off a corner measuring 100 mm per side at an angle of 45°.
- 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

- Heat the substrate and the backing film on the underside of the membrane with a gas burner.
- When the backing film starts to melt, the membrane is ready to stick.
- Roll the heated membrane forward and press it firmly against the substrate to bond it.
- 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

- 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

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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