BUILDING TRUST

PRODUCT DATA SHEET

SikaShield® E65 S 3 mm

Elastomeric bituminous membrane surfaced with sand and flexible at -20 °C

DESCRIPTION

SikaShield® E65 S 3 mm is an SBS modified bituminous waterproofing membrane with a thickness of 3 mm. It is reinforced with a non-woven polyester fabric dimensionally stabilized with glass fibre and is flexible at -20 °C. The top surface is coated with sand, 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:
- Balconies and terraces under a heavy protection layer such as tiles or gravel.
- Flat and sloping roofs under protective layers or ballast
- Car park decks
- Wet areas
- Basements and other below ground structures
- Horizontal reinforced concrete slabs, decks, podiums and protrusions
- Vertical reinforced concrete walls

The Product is used as a:
- Base sheet in multi-layer systems

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

CHARACTERISTICS / ADVANTAGES

- Can be painted immediately after application
- Easy to install by torching method
- Fully bonded
- High durability
- Very good mechanical properties (tensile, tear, shear)
- Insulation panels can be bonded without special adhesives or mechanical fixings

APPROVALS / CERTIFICATES

- 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
- CE marking and declaration of performance based on EN 13969:2004/A1:2006 Flexible sheets for waterproofing — Bitumen damp proof sheets including bitumen basement tanking sheets — Definitions and characteristics

PRODUCT INFORMATION

Composition

Composition	SBS modified bitumen
Reinforcing material	non-woven polyester fabric dimensioanlly stabilised with glass fibre

Packaging

Roll width	1.0 m	(EN 1848-1)
Roll length	10.0 m	

Refer to current price list for 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. 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 and colour	Top surface	Sand	
	Bottom surface	Polyethylene film	
Effective thickness	Effective thickness	3.0 mm ± 0.2 mm	(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 tear	Longitudinal (MD)	160 N ± 48 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	≤ -20 °C		(EN 1109)
Watertightness	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	+30 °C
Relative air humidity	Maximum	80 %
Substrate temperature	Minimum	+5 °C
	Maximum	+30 °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.

ECOLOGY, 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 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
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 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.
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.
2. At the end overlap, cut off a corner measuring 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.

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.

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 declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

LEGAL NOTES

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

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