

PRODUCT DATA SHEET

Sikalastic®-650

HIGH PERFORMANCE, ONE COMPONENT, SOLVENT AND ISOCYANATE FREE ROOF WATER-PROOFING MEMBRANE

DESCRIPTION

Sikalastic®-650 is a one component, cold applied, solvent and isocyanate free roof waterproofing membrane based on silane terminated polymers. It cures to form a seamless and durable waterproofing solution for exposed roof areas and structures.

USES

- For roof waterproofing solutions in both new construction and refurbishment projects
- For roofs displaying complex detail areas, even when accessibility is limited
- For cost efficient life cycle extension of failing roofs
- Applications scenarios sensitive to chemical handling and odour concerns

CHARACTERISTICS / ADVANTAGES

- Single component - no mixing, easy and ready to use
- Cold applied - requires no heat or flame
- Solvent & isocyanate free - non-toxic and VOC compliant
- Seamless membrane
- Reinforced with polyester fleece to give a tough and durable membrane
- Vapour permeable - allows substrate to breathe
- Elastic - retains flexibility even in low temperatures
- Good adhesion to most substrates - see table
- Wet-on-wet application - for fast installation

PRODUCT INFORMATION

Chemical Base	One component silane terminated polymer
Packaging	5 Litres (~ 6.75 kg), 15 Litres (~ 19.5 kg) metal pails
Colour	Liquid - Colour - Slate Grey (RAL 7015) & Cloud Grey (RAL 7045)
Shelf Life	12 months from the date of production

Storage Conditions

The product must be stored properly in original, unopened and undamaged sealed packaging in dry conditions . Higher storage temperatures may reduce shelf life of product.

Reference shall also be made to the storage recommendations within the safety data sheet.

Density	~ 1.35 kg/Litre	EN ISO 2811-1 All Density values at +20 °C
Solid Content	100 % by weight (+23 °C/50 % r.h.) 100 % by volume (+23 °C/50 % r.h.)	

TECHNICAL INFORMATION

Tensile Strength	~ 2.0 N/mm ² ~ 6.3 N/mm ²	EN ISO 527-3 Unreinforced EN ISO 527-3 Reinforced
Elongation at Break	~ 200 % ~ 82 %	EN ISO 527-3 Unreinforced EN ISO 527-3 Reinforced
Solar Reflectance	100 - in white RAL 9016	ASTM E1980
Service Temperature	-30 °C to +80 °C (intermittent)	

SYSTEM INFORMATION

System Structure	Reinforced Roof Waterproofing Sikalastic®-650 is applied in one coat reinforced with Sikalastic® Fleece-120 and sealed with the further coat of Sikalastic®-650 as wet on wet application.	
	Substrates	Concrete, metals, wood, tiles, asphalt*, felt*
	Primer	Please refer to Sikalastic® Primer-Cleaner chart below
	Total Thickness	~ 2.1 mm–2.3 mm
	Total Consumption	~ 2 Litre/m ² (2.7 kg/m ²)
	*Test compatibility before use - Bituminous materials may also soften temporarily and could produce a slight stain.	

APPLICATION INFORMATION

Ambient Air Temperature	+5 °C min to +40 °C max
Relative Air Humidity	85 % r.h. max
Substrate Temperature	+5°C min to +60°C max
Dew Point	Beware of condensation. The substrate and uncured membrane must be at least 3 °C above the dew point to reduce the risk of condensation. Condensation may affect adhesion and could affect appearance.
Substrate Moisture Content	≤ 6 % pbw moisture content. Test method: Sika® Tramex meter, CM - measurement or Oven-dry-method. No rising moisture according to ASTM (Polyethylene Sheet)

Substrate Pre-Treatment

Substrate Priming

Substrate	Primer	Consumption (ml/m ²)
Cementitious substrates	No primer required	n/a
Brick and Stone	Not normally required - but Sika Concrete Primer where necessary on porous or dusting substrates	If used: ≈ 100 - 200
Ceramic tiles (unglazed) and concrete slabs	No primer required	n/a
Bituminous felt	Only required for fresh (volatile) bitumen or high reflectivity applications (Sikalastic® Metal Primer)*	If used: ≈ 100 - 200
Single Ply	Adhesion to single ply may vary according to type, age etc. Subject to adhesion and compatibility tests	
Bituminous coatings	Not normally required. Only required for high reflectivity applications (Sikalastic® Metal Primer)*	If used: ≈ 100 - 200
Metals Ferrous or galvanized metals, lead, copper, aluminium, brass or stainless steel	Sikalastic® Metal Primer or SikaPrimer 204N as appropriate	100 - 200
Wooden substrates	Timber based roof decks require a complete layer of Carrier. For small exposed timber sections no priming necessary	n/a
Paints	Subject to adhesion and compatibility tests	
Existing Sikalastic® System	No primer required	n/a

These figures are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level and wastage etc.

For the Waiting Time/Overcoating you should refer to the PDS of the ap-

appropriate cleaner and primer. Other substrates must be tested for their compatibility. If in doubt, apply a test area first.

*Sikalastic® Metal Primer prevents migration of bituminous volatiles and improves long-term reflectivity.

Waiting Time / Overcoating

Sikalastic®-650 is designed for a wet on wet application. After 24 hours the surface has to be cleaned and pre-treated by Cleaner P.

Applied Product Ready for Use

Substrate Temperature	Relative Humidity	Touch Dry	Rain Resistant	Full Cure
+10 °C	50 %	~ 4 hour	~ 8 hour	~ 14 hour
+20 °C	50 %	~ 2 hour	~ 4 hour	~ 7 hour
+30 °C	50 %	~ 1 hour	~ 2 hour	~ 5 hour

Note: Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity. Low temperature and high relative air humidity retard curing, while high temperatures and low relative air humidity accelerate curing progression.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The surface must be sound, of sufficient strength, clean, dry and free of dirt, oil, grease and other contamination. Depending on the material the substrate must be primed or mechanically cleaned. Grinding may be necessary to level the surface. Suitable substrates are such as:- concrete, bituminous felts and coatings, metal, brickwork, asbestos cement, ceramic tiles, wooden substrates.

Please refer to the primer chart for pre-preparation

MIXING

Prior to application, stir Sikalastic®-650 gently but thoroughly for 1 minute in order to achieve a homogeneous mixture. Stirring gently will minimise air entrapment.

APPLICATION

Prior to the application of Sikalastic®-650 the priming coat if used, must have cured tack-free. For the Waiting Time/Overcoating please refer to the PDS of the appropriate primer. Damageable areas (handrails etc) have to be protected with tape or plastic wrapping.

Reinforced Roof Waterproofing: Sikalastic®-650 is applied as wet in wet application combination with Sikalastic® Fleece 120.

Please note, always begin with details prior to starting with waterproofing the horizontal surface. For details follow steps 1-3.

1. Apply first coat of approximately 1.3L/m² of Sikalastic®-650. Work only so far in advance that the material stays liquid.
2. Roll in the Sikalastic® Fleece 120 and ensure that there are no bubbles or creases. Overlapping of the fleece a minimum 50mm and ensure overlaps are sufficiently wet to bond.

3. Apply a further coat of approximately 0.7L/m² of Sikalastic®-650 as a wet in wet application.

Note: If more than 24 hours were left for a day joint, the overlapping must be pre-treated by Cleaner P.

Slip Resistant Walkways: Sikalastic®-650 is applied after pre-treatment with Cleaner P and fully broadcast with mineral grit. For details follow steps 1-5.

1. Pre-treat fully cured Sikalastic®-650 with Cleaner P using absorbent cloth or cotton-head mop and leave ~ 30 mins.
2. Stencil designated walkway area using appropriate barrier tape (duct tape recommended).
3. Apply 0.3 L/m² of Sikalastic®-650 and blind broadcast using Deco Mineralised grit.
4. Remove barrier tape upon completion of broadcasting whilst Sikalastic®-650 is still wet.
5. Sweep excess Deco Mineralised grit upon full cure.

CLEANING OF TOOLS

Clean all tools and application equipment with Thinner C immediately after use. Hardened and/or cured material can only be removed mechanically.

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.

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.

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 Material Safety Data Sheet (MSDS) containing physical, ecological, toxicological and other safety-related data.

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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Product Data Sheet

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