BUILDING TRUST

PRODUCT DATA SHEET

Sikalastic®-560

Economical liquid applied roof waterproofing solution based on Sika Co-Elastic Technology (CET)

DESCRIPTION

Sikalastic®-560 is a cold-applied, one-component waterborne liquid applied waterproofing membrane, highly elastic and UV resistant.

USES

- For roof waterproofing solutions in both new construction and refurbishment projects
- For roofs with many details and complex geometry when accessibility is limited
- For cost efficient life cycle extension of failing roofs
- For reflective coating to enhance energy efficiency by reducing cooling costs

CHARACTERISTICS / ADVANTAGES

- One-component - ready to use
- Cold applied - requires no heat or flame
- Seamless waterproofing membrane
- UV resistant and UV stable
- Highly elastic and crack-bridging
- Easily recoated when needed - no stripping required
- Economic – provides a cost efficient life cycle extension for failing roofs
- Low VOC emitting water-based coating
- Excellent adhesion on porous and non-porous substrates
- Water vapour permeable - allows the substrate to breathe
- 18 months shelf life

ENVIRONMENTAL INFORMATION

- Conformity with LEED v2009 IEQc 4.2: Low-Emitting Materials - Paints and Coatings
- Conformity with LEED v2009 SSc 7.2 (Option 1): Heat Island Effect - Roof

APPROVALS / STANDARDS

- Liquid applied roof waterproofing kit according to ETAG 005, ETA-12/0308 issued by technical assessment body Instituto de ciencias de la construction Eduardo Torroja, Declaration of performance 99240033, provided with the CE marking
- Fulfils initial solar reflectance requirements acc. Energy Star (0.820)
- Meets requirements of external fire performance ENV 1187 B_{Roof} (T1) on non-combustible substrates

PRODUCT INFORMATION

Chemical Base	Polyurethane modified acrylic dispersion
Packaging	20 ltr plastic pails 5 ltr plastic pails
Colour	Grey, terracotta, red and white (Energy Star)
Shelf Life	18 months from date of production

Storage Conditions	The product must be stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C.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/l (+23 °C) (EN ISO 2811-1)
Solid content by weight	~65 % (+23 °C / 50 % r.h.)
Solid content by volume	~48 % (+23 °C / 50 % r.h.)

TECHNICAL INFORMATION

Tensile Strength (DIN 53504)

Not reinforced	~1.5 N/mm²
Reinforced with Sikalastic® Fleece-120	~12.0 N/mm²
Reinforced with Sikalastic® Reemat Premium	~4.0–5.0 N/mm²

Elongation at Break (DIN 53504)

Not reinforced	~350 %
Reinforced with Sikalastic® Fleece-120	~40–60 %
Reinforced with Sikalastic® Reemat Premium	~70–80 %

Solar Reflectance

0.82[1)]

[1)]All values refer to the inital (properly cured, non-weathered) status of Sikalastic®-560 white.

Thermal Emittance

0.93[1)]

[1)]All values refer to the inital (properly cured, non-weathered) status of Sikalastic®-560 white.

Solar Reflectance Index

102[1)]

[1)]All values refer to the initial (properly cured, non-weathered) status of Sikalastic®-560 white.

Service Temperature

With Fleece	Without Fleece
-10 °C min. / +80 °C max.	-5° C min. / +80 °C max.

APPLICATION INFORMATION

Ambient Air Temperature

+8 °C min. / +35 °C max.

Relative Air Humidity

80 % r.h. max.

Substrate Temperature

+8 °C min. / +35 °C max.≥3 °C above dew point

Substrate Moisture Content

The product can be applied on substrates with a moisture content of ≤ 6 % part by weight. The substrate must be visibly dry with no standing water. The following test methods can be used to determine the substrate moisture content:

- Sika®-Tramex meter
- CM-measurement
- Oven-dry-method

No rising moisture according to ASTM (Polyethylene-sheet).

Waiting Time / Overcoating

Waiting time with Sikalastic® Fleece	Waiting time without Sikalastic® Fleece	Ambient condition
24 hours	6 hours	+20 °C / 50 % r.h.
12 hours	4 hours	+30 °C / 50 % r.h.

Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity.

Applied Product Ready for Use

Touch dry	Rain resistant	Full cure	Ambient condition
2 hour approx.	8 hours approx.	4 days approx.	+20 °C / 50 % r.h.
1 hour approx.	4 hours approx.	2 days approx.	+30 °C / 50 % r.h.

Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity.

SYSTEM INFORMATION

System Structure

Roof Coating*

Sikalastic®-560 is applied in 2 or 3 coats

Total consumption	≥ 0.9 - 1.4 kg/m² (≥ 0.6 - 1.0 l/m²)
Dry film thickness	≥ 0.3 - 0.5 mm

*For partial reinforcement Sikalastic® Fleece-120 or Sikalastic® Flexitape Heavy is applied at areas with high movement, irregular substrate or to bridge cracks, joints and seams on the substrate as well as for details. On bitumen felt a fully reinforced roof waterproofing system has to be applied.
For primer, please refer to the Substrate Pre-Treatment table below.

Reinforced Roof Waterproofing

Sikalastic®-560 is applied in 1 coat, reinforced with Sikalastic® Fleece-120 or Sika® Reemat Premium and sealed with 1 - 2 coats of Sikalastic®-560

Layer	Product	Consumption
1. Primer	please refer to substrate pre-treatment	please refer to substrate pre-treatment
2. Base coat	Sikalastic®-560	≥ 1.0 - 1.5 kg/m² (≥ 0.75 - 1.1 l/m²)
3. Reinforcement	Sikalastic® Fleece-120 or Sika® Reemat Premium	-
4. Top coats	Sikalastic®-560 applied in 1-2 coats	≥ 1.1 - 1.3 kg/m² (≥ 0.80 - 0.95 l/m²)

Note: Do not apply more than 0.75 kg/m² of Sikalastic®-560 per coat for layers without reinforcement.
Note: These figures are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level and wastage.

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.

LIMITATIONS

- Do not apply Sikalastic®-560 on substrates with rising moisture.
- Sikalastic®-560 is not suitable for permanent water immersion.
- On substrates likely to exhibit outgassing, apply during falling ambient and substrate temperature. If applied during rising temperatures “pin holing” may occur from rising air.
- Ensure that temperature does not drop below 8 °C and that relative humidity does not exceed 80 % until the membrane has fully cured.
- Sikalastic®-560 should not be applied on roofs subject to long-term ponding water.
- Sikalastic®-560 should not be applied on roofs subject to ponding water with subsequent periods of frost. In cold climatic zones for roofing structures with a pitch of less than 3 % appropriate measures must be considered.
- Sikalastic®-560 applied on roofs subject to long-term freezing at temperature around the minimum service temperature of -10 °C should always be reinforced with Sikalastic® Fleece-120 in order to guarantee sufficient crack-bridging ability.
- Do not apply Sikalastic®-560 directly on insulation boards. Instead use a separation layer like Sikalastic® Carrier between insulation board and Sikalastic®-560.
- Areas with high movement, irregular substrates, or timber based roof decks require a complete layer of Sikalastic® Carrier.

- Sikalastic®-560 is not recommended for pedestrian traffic. In case pedestrian traffic is unavoidable, Sikalastic®-560 shall be covered with appropriate elements such as tiles, stone plates or wooden panels.
- Do not apply cementitious products (e.g. tile mortar) directly onto Sikalastic®-560. Use an alkaline barrier, for example kiln dried quartz sand.
- The fire resistance performance has been tested internally according to ENV 1187 B_{Roof} (T1).

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

SUBSTRATE QUALITY

Substrate	Primer	Consumption (kg/m²)
Cementitious substrate	Sikalastic®-560 diluted with 10 % water.	~0.3
Brick and stone	Sikalastic®-560 diluted with 10 % water.	~0.3
Ceramic tiles (unglazed)	Sikalastic®-560 diluted with 10 % water.	~0.3
Bituminous felt	Only required for high reflectivity applications (Sikalastic® Metal Primer)* Fully reinforced system only	~0.2
Bituminous coatings	Only required for high reflectivity applications (Sikalastic® Metal Primer)* Fully reinforced system only	~0.2
Metals	Sikalastic® Metal Primer	~0.2
Wooden substrates	Timber based roof decks require a complete layer of Sikalastic® Carrier. For exposed timber upstands use Sikalastic®-560 diluted with 10 % water.	~0.3
Paints	Subject to adhesion and compatibility test	

* Sikalastic® Metal Primer prevents migration of bituminous volatiles and improves long-term reflectivity.
Note: These figures are theoretical and do not include for any additional material required due to surface porosity, surface profile, variations in level and wastage.For the Waiting Time / Overcoating, please refer to the PDS of the appropriate cleaner and primer. Other substrates must be tested for their compatibility. If in doubt, apply a test area first.

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.**For detailed information regarding substrate preparation and primer chart please refer to Method Statement No. 850 94 03.**

MIXING

Prior to application, stir Sikalastic®-560 thoroughly for 1 minute in order to achieve a homogeneous mixture.Over mixing must be avoided to minimise air entrainment.

APPLICATION

Prior the application of Sikalastic®-560 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 (door frame) have to be protected with an adhesive tape
Roof Coating: Sikalastic®-560 is applied in two or three coats. Prior to the application of a 2nd coat the indicated waiting time in the table above shall be allowed.
Roof Waterproofing: Sikalastic®-560 is applied in combination with Sikalastic® Fleece 120 or Sika® Reemat Premium.

1. Apply first coat of appr. 0.75 kg/m² (for non-absorbing substrates) – 1.00 kg/m² (for absorbing substrates) of Sikalastic®-560 on a length of approx. 1m.
2. Roll in the Sikalastic® Fleece-120 or Sika® Reemat Premium and ensure that there are no bubbles or creases. Overlapping of the fleece minimum 5 cm.
3. Apply second coat of approx. 0.25 kg/m² - 0.5kg/m² coat right into the wet fleece to achieve the required film thickness. The entire application shall happen while Sikalastic®-560 is still liquid, wet in wet.
4. Repeat step 1–3 until the roof area is waterproofed.
5. After the two coats are dry, seal the roof area with one or more additional coats of Sikalastic®-560 (≥ 0.5 kg/m² per coat).

Please note, always begin with details prior starting with waterproofing the horizontal surface. **For detailed information regarding application method please refer to Method Statement No. 850 94 03.**

CLEANING OF TOOLS

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

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.

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