**Sikalastic®-560**

Eco-friendly Liquid Applied Roof Waterproofing Solution Based on Sika Co-Elastic Technology (CET)

**Product Description**

Sikalastic®-560 is a cold-applied, one-component waterborne liquid applied waterproofing membrane, highly elastic and UV-resistant. Suitable for use in hot and tropical climatic conditions.

**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
- For the waterproofing of bathrooms, shower rooms, kitchens and plumbing rooms beneath hard protection (eg. Ceramic tiles or stone materials)

**Advantages**

- UV resistant and resistant to yellowing and weathering
- Highly elastic and crack-bridging
- Non-toxic and VOC compliant water based coating
- One component - ready to use
- Excellent adhesion on porous and non-porous substrates
- Seamless, fully bonded waterproofing membrane
- Water vapour permeable

**Approval / Standards**

Fulfils requirements according ETAG-005 Part 8

Fulfils initial solar reflectance requirements according Energy Star (0.820)

Conforms to the requirements of LEED EQ Credit 4.2: Low –Emitting Materials: Paints & Coatings: VOC < 100 gm/l

USGBC LEED rating: conforms to LEED SS Credit 7.2- Heat Island Effect-Roof, SRI ≥ 78

Meets requirements of external fire performance ENV 1187 B_{Roof} (T1) on non-combustible substrates

**Product Data**

<table>
<thead>
<tr>
<th>Form</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance / Colour</td>
<td>White (Energy Star)</td>
</tr>
<tr>
<td>Packaging</td>
<td>20 kg plastic pails</td>
</tr>
</tbody>
</table>

**Storage**

<table>
<thead>
<tr>
<th>Storage Conditions</th>
<th>Store in dry conditions in original packaging at temperatures between +5°C and +30°C. Protect from direct sunlight and frost.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shelf Life</td>
<td>12 months from date of production if stored properly in original, unopened and undamaged sealed packaging</td>
</tr>
</tbody>
</table>
Technical Data

**Chemical Base**
Polyurethane modified Acrylic Dispersion

**Density (at 23°C)**
1.35 kg/l

**Solid Content**
~ 48% by volume  
~ 65% by weight

**VOC Content**
< 100 gm/l

**Service Temperature**
-10°C to +80°C (with fleece)  
-5°C to +80°C (without fleece)

**CIGS- Reflectance (initial)**
Sikalastic®-560 white: 87%  \(\text{(EN 410 in conjunction with CIGS sensitivity)}\)

**Solar Reflectance (initial)**
Sikalastic®-560 white: 0.82  \(\text{(ASTM C 1549)}\)

**Initial Emittance**
Sikalastic®-560 white: 0.93  \(\text{(ASTM E 408, C1371, others)}\)

**SRI (Solar Reflectance Index) (Initial)**
Sikalastic®-560 white: 102  \(\text{(ASTM E 1980)}\)

**Tensile Strength**
Free film: ~ 1.5 N/mm²  \(\text{(DIN 53504)}\)  
With Sikalastic® Fleece-120: ~ 12 N/mm²  \(\text{(DIN 53504)}\)

**Elongation at Break**
Free film: ~ 350%  \(\text{(DIN 53504)}\)  
With Sikalastic® Fleece-120: ~ 40-60%  \(\text{(DIN 53504)}\)

**System Structure**

**Roof Coating:**
For UV-stable coating, to extend life of old roofs or as reflective coating to enhance energy efficiency.

Build up:  
Sikalastic®-560 applied in one or two coats  
Substrates: Concrete, metals, wood, tiles  
Primer: Please refer to Sikalastic® Primer-Cleaner chart below  
Total thickness: ~ 0.3 – 0.5 mm  
Total consumption: ~ 0.9 – 1.4 kg/m²

**Roof Waterproofing:**
For cost efficient waterproofing solutions in new construction and refurbishment projects.

Build up:  
Sikalastic®-560 applied in two coats and reinforced with  
Sikalastic® Fleece-120 and sealed with one or two additional coats of Sikalastic®-560  
Substrates: Concrete, metals, wood, tiles  
Primer: Please refer to Sikalastic® Primer-Cleaner chart below  
Total thickness: ~ 1.0 - 1.3 mm  
Total consumption: ~ 2.1 – 2.8 kg/m²

Sikalastic® Fleece-120 is applied at areas with high movements, irregular substrate or to bridge cracks, joints and seams on the substrate as well as for details.
Wet Room Waterproofing
For cost efficient waterproofing solutions in new construction and refurbishment projects.

<table>
<thead>
<tr>
<th>Build up</th>
<th>Sikalastic®-560 applied in two coats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substrates:</td>
<td>Concrete, metals, wood, tiles</td>
</tr>
<tr>
<td>Primer:</td>
<td>Please refer to Sikalastic® Primer chart below</td>
</tr>
<tr>
<td>Total thickness:</td>
<td>0.5 mm</td>
</tr>
<tr>
<td>Total consumption:</td>
<td>1.4 kg/m²</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sikalastic®-560 Roof Coating Smooth Surface</th>
<th>Sikalastic®-560 Roof Coating Rough Surface &amp; Wet Rooms</th>
<th>Sikalastic®-560 Roof Waterproofing Smooth Surface</th>
<th>Sikalastic®-560 Roof Waterproofing Rough Surface</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build up</td>
<td>Sikalastic®-560 applied in one coat</td>
<td>Sikalastic®-560 applied in 2 coats</td>
<td>Sikalastic®-560 applied in 2 coats, reinforced with Sikalastic® Fleece-120 and sealed with one coat of Sikalastic®-560</td>
</tr>
<tr>
<td>Substrates</td>
<td>Sound concrete, metals, wood, tiles</td>
<td>Sound concrete, metals, wood, tiles, bituminous membranes</td>
<td></td>
</tr>
<tr>
<td>Primer</td>
<td>Please refer to Sikalastic® Primer chart below</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry film thickness</td>
<td>~ 0.3 mm</td>
<td>~ 0.5 mm</td>
<td>~ 1.0 mm</td>
</tr>
<tr>
<td>Total consumption</td>
<td>≥ 0.9 kg/m² (≥ 0.6 l/m² ) applied in one or more coats</td>
<td>≥ 1.4 kg/m² (≥ 1 lt/m² ) applied in 2 coats</td>
<td>≥ 2.1 kg/m² (≥ 1.5 lt/m² ) applied in 3 coats</td>
</tr>
</tbody>
</table>

- One component product. Stir before using
- UV resistant and resistant to yellowing
- Highly elastic and crack-bridging
- Vapour permeable
- Easy application by brush, roller or airless spray equipment even when accessibility is limited
- Bonds fully to most substrates, preventing the migration of water
- Seamless waterproofing membrane
- Fire resistant
- Compatible with bituminous felts
- Resistant to wind uplift
- Wide colour range available
## Application Details

<table>
<thead>
<tr>
<th>Substrate Treatment</th>
<th>Cementitious substrates:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New concrete should be cured for at least 28 days and should have a pull-off strength ( \geq 1.5 \text{ N/mm}^2 ).</td>
</tr>
<tr>
<td></td>
<td>Cementitious or mineral based substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and to achieve an open textured surface.</td>
</tr>
<tr>
<td></td>
<td>Loose friable material and weak concrete must be completely removed and surface defects such as blowholes and voids must be fully exposed.</td>
</tr>
<tr>
<td></td>
<td>Repairs to the substrate, filling of joints, blowholes/voids and surface leveling must be carried out using appropriate products from the Sikafloor®, SikaDur® and SikaGard® range of materials.</td>
</tr>
<tr>
<td></td>
<td>High spots must be removed by e.g. grinding.</td>
</tr>
<tr>
<td></td>
<td>Outgassing is a naturally occurring phenomenon of concrete that can produce pinholes in subsequently applied coatings. The concrete must be carefully assessed for moisture content, air entrapment, and surface finish prior to any coating work. Installing the membrane either when the concrete temperature is falling or stable can reduce outgassing. It is generally beneficial, therefore, to apply the embedment coat in the late afternoon or evening.</td>
</tr>
<tr>
<td></td>
<td>Prime the substrate and always use a reinforced system for waterproofing purposes.</td>
</tr>
</tbody>
</table>

**Brick and stone:**
- Mortar joints must be sound and flush pointed.
- Use localised reinforcement over connection joints and prime before applying Siklastic®-560.

**States, tiles, etc.:**
- Ensure all slates/tiles are sound and securely fastened, replacing obviously broken or missing sections.
- Fully glazed tiles must be abraded prior to priming and subsequent treatment with Siklastic®-560.

**Bituminous felt:**
- Ensure that Bituminous felt is firmly adhered or mechanically fixed to the substrate.
- Bituminous felt should not contain any badly degraded areas.
- Prime and always use a totally reinforced system.

**Bituminous coatings:**
- Bituminous coatings should not have sticky or mobile surfaces, volatile mastic coatings, or old coal tar coatings.
- Prime and always use a totally reinforced system.

**Metals:**
- Metals must be in sound condition.
- Abrade exposed surfaces to reveal bright metal.
- Use localised reinforcement over joints and fixings.

**Wooden substrates:**
- Timber and timber based panel roof decks are to be in good condition, firmly adhered, or mechanically fixed.

**Paints/Coatings:**
- Ensure the existing material is sound and firmly adhered.
- Remove any oxidized layers and use localised reinforcement over joints.

**Existing SikaRoof® CET Systems:**
- The existing SikaRoof® CET Systems should still be soundly adhered to the substrate.
### Substrate Preparation

<table>
<thead>
<tr>
<th>Substrate</th>
<th>Primer</th>
<th>Consumption [kg/m²]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cementitious substrates</td>
<td>Sikalastic®-560 diluted with 10% water.</td>
<td>~ 0.3</td>
</tr>
<tr>
<td>Brick and Stone</td>
<td>Sikalastic®-560 diluted with 10% water.</td>
<td>~ 0.3</td>
</tr>
<tr>
<td>Slate, tiles, etc.</td>
<td>Sikalastic®-560 diluted with 10% water.</td>
<td>~ 0.3</td>
</tr>
<tr>
<td>Bituminous felt</td>
<td>Sikalastic®-560 diluted with 10% water.</td>
<td>~ 0.3</td>
</tr>
<tr>
<td>Bituminous coatings</td>
<td>Sikalastic®-560 diluted with 10% water.</td>
<td>~ 0.3</td>
</tr>
<tr>
<td>Metals</td>
<td>Sikalastic®-560 diluted with 10% water.</td>
<td>~ 0.3</td>
</tr>
<tr>
<td>Wooden substrates</td>
<td>Sikalastic®-560 diluted with 10% water.</td>
<td>~ 0.3</td>
</tr>
<tr>
<td>Paints</td>
<td>Sikalastic®-560 diluted with 10% water.</td>
<td>~ 0.3</td>
</tr>
</tbody>
</table>

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.

### Substrate Temperature

- **Substrate Temperature**
  - +8°C min. / +35°C max.

### Ambient Temperature

- **Ambient Temperature**
  - +8°C min. / +35°C max.

### Substrate Moisture Content

- **Substrate Moisture Content**
  - < 6% moisture content.
  - No rising moisture according to ASTM (Polyethylene-sheet). No water / moisture / condensation on the substrate.

### Relative Air Humidity

- **Relative Air Humidity**
  - 80% max.

### Dew Point

- **Dew Point**
  - Beware of condensation. Surface temperature during application must be at least +3°C above dew point.

### Mixing

- **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 Method / Tools

- **Application Method (please refer to the most recent issue of the Method Statement)**
  - Prior to the application of Sikalastic®-560 the priming coat must have cured tack-free.
  - Protect adjacent areas from splashes, over painting, damage etc. with an adhesive tape or plastic.

**Roof Coating:**

- Sikalastic®-560 is applied in two coats. Prior to the application of a 2nd coat the indicated waiting time in the table below must be followed.

**Roof Waterproofing:**

- Sikalastic®-560 is applied in combination with Sikalastic® Fleece 120.
  1. Apply first coat of approximately 1.0 kg/m² of Sikalastic®-560 to a length of approximately 1m.
  2. Roll in the Sikalastic® Fleece-120 and ensure that there are no bubbles or creases. Overlapping of the fleece must be a minimal 5 cm.
  3. Apply a second coat of minimum 0.5kg/m² directly into the wet fleece to achieve the required film thickness. The entire application must be wet in wet, while the Sikalastic®-560 is still liquid.
  4. Repeat step 1-3 until the roof area is totally covered and waterproof.
  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 the detailing prior to waterproofing the horizontal surfaces. For details follow step 1-5.
Tools:

Jet washer:
If dust, vegetation, moss / algae or other contaminants are present on the existing roof, a power washer is required to clean the substrate prior to the application of SikaRoof® Systems. Existing chippings should be removed by hand or scabbling prior to power washing.

Squeegee:
Useful when removing excess water from the roof after overnight rain

Drill and paddle:
Sikalastic®-560 should be mixed for one minute using a drill and paddle.

Solvent resistant short-piled lamb skin roller:
Used in the application of Sikalastic®-560 to ensure a consistent thickness of the seamless SikaRoof® systems.

Thick hair brush:
For application of Sikalastic®-560 to all details and penetrations.

Stanley knife:
This tool is required when cutting Sikalastic® Vap, Sikalastic® Insulation and Sikalastic® Carrier. When the Sikalastic® Insulation is resting on an uneven substrate, the back of the board should be cut to enable maximum contact with Sikalastic® Coldstick.

Saw:
Used when cutting thick Sikalastic® Insulation boards.

Airless spray equipment:
Used only for the roof coating systems. Two spray applied layers is the minimum requirement. The pump should have the following parameter:
- min. pressure: 220 bar
- min. output: 5.1 l/min
- min. ø nozzle: 0.83mm (0.033 inch)

For example: Wagner Heavycoat HC 940 E SSP Spraypack

<table>
<thead>
<tr>
<th>Substrate Temperature</th>
<th>Relative humidity</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>+10°C</td>
<td>50%</td>
<td>~ 4 hours</td>
<td>After thorough cleaning. Sikalastic®-560 can be overworked at any time</td>
</tr>
<tr>
<td>+20°C</td>
<td>50%</td>
<td>~ 2 hours</td>
<td></td>
</tr>
<tr>
<td>+30°C</td>
<td>50%</td>
<td>~ 1 hour</td>
<td></td>
</tr>
</tbody>
</table>

Before applying Sikalastic®-560 on primer Sikalastic®-560 diluted with 10% water:

<table>
<thead>
<tr>
<th>Substrate Temperature</th>
<th>Relative humidity</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>+10°C</td>
<td>50%</td>
<td>~ 8 hours</td>
<td>After thorough cleaning. Sikalastic®-560 can be overworked with itself at any time</td>
</tr>
<tr>
<td>+20°C</td>
<td>50%</td>
<td>~ 6 hours</td>
<td></td>
</tr>
<tr>
<td>+30°C</td>
<td>50%</td>
<td>~ 4 hours</td>
<td></td>
</tr>
</tbody>
</table>

1) Assuming that all dirt has been removed and contamination is avoided.

Before applying Sikalastic®-560 topcoat on Sikalastic®-560 reinforced with fleece allow material to dry:

<table>
<thead>
<tr>
<th>Substrate Temperature</th>
<th>Relative humidity</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>+10°C</td>
<td>50%</td>
<td>~ 36 hours</td>
<td>After thorough cleaning. Sikalastic®-560 can be overworked with itself at any time</td>
</tr>
<tr>
<td>+20°C</td>
<td>50%</td>
<td>~ 24 hours</td>
<td></td>
</tr>
<tr>
<td>+30°C</td>
<td>50%</td>
<td>~ 12 hours</td>
<td></td>
</tr>
</tbody>
</table>

Note: Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity
Applied Product ready for use

<table>
<thead>
<tr>
<th>Substrate Temperature</th>
<th>Relative humidity</th>
<th>Touch dry</th>
<th>Rain resistant</th>
<th>Full cure</th>
</tr>
</thead>
<tbody>
<tr>
<td>+10°C</td>
<td>50%</td>
<td>~ 4 hours</td>
<td>~ 12 hours</td>
<td>~ 6 days</td>
</tr>
<tr>
<td>+20°C</td>
<td>50%</td>
<td>~ 2 hour</td>
<td>~ 8 hours</td>
<td>~ 4 days</td>
</tr>
<tr>
<td>+30°C</td>
<td>50%</td>
<td>~ 1 hour</td>
<td>~ 4 hours</td>
<td>~ 2 days</td>
</tr>
</tbody>
</table>

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

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

Notes on Application / Limitations
Do not apply Sikalastic®-560 on substrates that have rising moisture.
Always apply during falling ambient and substrate temperature. If applied during rising temperatures “pin holing” may occur from rising and expanding air.
When applying Sikalastic®-560 in Wet Rooms it is recommended to install mortar arris’s / fillets at all upstands and around drainage pipes. Sikalastic®-560 may be flood tested with 50 mm water for a maximum period of 48 hrs.
Ensure that each coat of Sikalastic®-560 is totally dry and the surface is without pinholes before applying any top coat.
Each coat of Sikalastic®-560 must be fully cured before applying subsequent coats.

Do not allow temporary ponding or moisture to remain between coats on any horizontal surfaces or until the final coating has totally cured. Brush or mop surface water away during this time.
Sikalastic®-560 should not be applied on roofs subject to long-term ponding water especially with subsequent periods of frost. In cold climatic zones for Roofing structures with a pitch of less than 3% appropriate measures must have to 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.

Sikalastic®-Fleece-120 can be used as total reinforcement or for partial reinforcements over dynamic cracks and joints.

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)
<table>
<thead>
<tr>
<th><strong>Value Base</strong></th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local Restrictions</strong></td>
<td>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 product uses.</td>
</tr>
<tr>
<td><strong>Health and Safety Information</strong></td>
<td>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 containing physical, ecological, toxicological and other safety-related data.</td>
</tr>
<tr>
<td><strong>Legal Notes</strong></td>
<td>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.</td>
</tr>
</tbody>
</table>

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All products are manufactured under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.