



Sikalastic®-560

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

Construction

Product Description	Sikalastic®-560 is a cold-applied, one-component waterborne liquid applied waterproofing membrane, highly elastic and UV-resistant.
Uses	<ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ■ 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 waterproofing membrane ■ Water vapour permeable ■ 12 months shelf life
Tests	
Approval / Standards	<p>Fulfils requirements acc. ETAG-005 Part 8</p> <p>Fulfils initial solar reflectance requirements acc. Energy Star (0.820)</p> <p>Conforms to the requirements of LEED EQ Credit 4.2: Low –Emitting Materials: Paints & Coatings: VOC < 100 g/l</p> <p>USGBC LEED rating: conforms to LEED SS Credit 7.2- Heat Island Effect-Roof, SRI ≥ 78</p> <p>Meets requirements of external fire performance ENV 1187 B_{Roof} (T1) on non-combustible substrates</p>
Product Data	
Form	
Appearance / Colours	Grey, terracotta, red and white (Energy Star)
Packaging	20 Ltr plastic pails



Storage			
Storage Conditions / Shelf Life	Plastic pails: 18 months from date of production.		
	The product must be stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +30°C.		
Technical Data			
Chemical Base	Polyurethane modified Acrylic Dispersion		
Density	1.35 kg/l		(EN ISO 2811-1)
	All density values at +23 °C		
Solid Content	~ 48% by volume / ~ 65% by weight		
Service Temperature	-10°C to +80°C (with fleece)		
	-5°C to +80°C (without fleece)		
CIGS- Reflectance (initial)	87%		
Sikalastic® -560 white	according to EN 410 in conjunction with CIGS sensitivity		
Solar Reflectance (initial)	0.82		
Sikalastic® -560 white	according to ASTM C 1549		
Initial Emittance	0.93		
Sikalastic® -560 white	according to ASTM E 408, C1371, others		
SRI (Solar Reflectance Index) (Initial)	102		
Sikalastic® -560 white	according to ASTM E 1980		
	All values related to the reflectance/emittance properties provided in this Product Data Sheet refer to the initial (properly cured, non-weathered) status of the product.		
Mechanical / Physical Properties			
Tensile Strength	Free film:	~ 1.5 N/mm ²	(DIN 53504)
	With Sikalastic® Fleece-120:	~ 12 N/mm ²	(DIN 53504)
	With Sikalastic® Reemat Premium	~ 4-5N/mm ²	(DIN 53504)
Elongation at Break	Free film:	~ 350%	(DIN 53504)
	With Sikalastic® Fleece-120:	~ 40-60%	(DIN 53504)
	With Sikalastic® Reemat Premium	~ 70-80%	(DIN 53504)

System Information

System Structure

Roof Coating

For UV-stable coating, for extend life of old roofs or as reflective coating to enhance energy efficiency.



Build up:	Sikalastic®-560 applied in 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:	~ 0.6 – 1.0 ltr/m ² (0.9 – 1.4kg/m ²)

Reinforced roof Waterproofing

For cost efficient waterproofing solutions in new construction and refurbishment projects.



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

Build up:	Sikalastic®-560 applied in two coats and reinforced with Sikalastic® Fleece-120 or Sika® Reemat Premium 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
Base coat:	≥ 0.75 - 1.1 l/m ² (≥ 1.0 - 1.5 kg/m ²)
Reinforcement	Sikalastic® Fleece-120 or Sika® Reemat Premium
Top coat:	Sikalastic®-560 applied in 1-2 coats ≥ 0.8 – 0.95 l/m ² (≥ 1.1 - 1.3 kg/m ²)
Total consumption:	~ 1.55 – 2.08 ltr/m ²
Sikalastic® Fleece-120 or Sika® Reemat Premium is applied at areas with high movements, irregular substrate or to bridge cracks, joints and seams on the substrate as well as for details.	

Attention: Do not apply more than 0.75 kg/m² 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

Application Details

Substrate Treatment

Cementitious substrates:

New concrete should be cured for at least 28 days and should have a Pull off strength $\geq 1.5 \text{ N/mm}^2$.

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.

Loose friable material and weak concrete must be completely removed and surface defects such as blowholes and voids must be fully exposed.

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.

High spots must be removed by e.g. grinding.

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.

Prime the substrate and always use a reinforced system.

Brick and stone:

Mortar joints must be sound and preferably flush pointed. Use localised reinforcement over joints and prime before applying Sikalastic®-560.

Slates, 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 Sikalastic®-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	Substrate Priming		
	Substrate	Primer	Consumption [l/m ²]
	Cementitious substrates	Sikalastic®-560 diluted with 10% water.	≈ 0.22
	Brick and Stone	Sikalastic®-560 diluted with 10% water.	≈ 0.22
	Ceramic tiles (unglazed),	Sikalastic®-560 diluted with 10% water.	≈ 0.22
	Bituminous felt	Only required for high reflectivity applications (Sikalastic® Metal Primer)* Fully reinforced System only!	≈ 0.15
	Bituminous coatings	Only required for high reflectivity applications (Sikalastic® Metal Primer)* Fully reinforced System only!	≈ 0.15
	Metals Ferrous or galvanised metals,lead, copper, aluminium, brass or stainless steel	Sikalastic®-Metal Primer.	≈ 0.15
	Wooden substrates	Timber based roof decks require a complete layer of Sikalastic® Carrier. For exposed timber upstands use Sikalastic®-560 diluted with 10% water.	≈ 0.22
Paints	Subject to adhesion and compatibility tests.		
<p>* Sikalastic® Metal Primer prevents migration of bituminous volatiles and improves long-term reflectivity</p> <p>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.</p> <p>For the Waiting Time /Overcoating you should 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.</p>			
Application Conditions / Limits			
Substrate Temperature	+8 °C min. / +35 °C max.		
Ambient Temperature	+8 °C min. / +35 °C max.		
Substrate Moisture Content	< 6 % moisture content. No rising moisture according to ASTM (Polyethylene-sheet). No water / moisture / condensation on the substrate.		
Relative Air Humidity	80 % max.		
Dew Point	Beware of condensation. Surface temperature during application must be at least +3 °C above dew point.		
Application Instructions			
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	<p><u>Application Method (please refer to the most recent issue of the Method Statement)</u></p> <p>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.</p> <p>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 Waiting Time / Overcoating shall be allowed.</p> <p>Roof Waterproofing: Sikalastic®-560 is applied in combination with Sikalastic® Fleece 120 or Sika® Reemat Premium.</p> <ol style="list-style-type: none"> 1. Apply first coat of appr. 0.56 ltr/m² (for non-absorbing substrates) – 0.74 ltr/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 minimal 5 cm. 3. Apply second coat of appr. 0.2 ltr/m² - 0.4ltr/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 (≥ 0.4 ltr/m² per coat). <p>Please note, always begin with details prior starting with waterproofing the horizontal surface. For details follow step 1-5.</p> <p>The declaration of consumption rates is without obligation and depends on factors like substrate porosity, substrate temperature, relative air humidity and air temperature.</p>
Tools	<p><i>Drill and paddle:</i> Sikalastic®-560 should be mixed for one minute using a drill and paddle.</p> <p><i>Solvent resistant short-piled lamb skin roller:</i> Used in the application of Sikalastic®-560 to ensure a consistent thickness of the seamless SikaRoof® systems.</p> <p><i>Thick hair brush:</i> For application of Sikalastic®-560 to all details and penetrations.</p> <p><i>Jet washer:</i> 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 scrubbing prior to power washing.</p> <p><i>Airless spray equipment:</i> Used only for the roof coating systems. Two spray applied layers is the minimum requirement. The pump should have the following parameter:</p> <ul style="list-style-type: none"> - min. pressure: 220 bar - min. output: 5.1 l/min - min. Ø nozzle: 0.83mm (0.033 inch) <p>For example: Wagner Heavycoat HC 940 E SSP Spraypack</p>
Cleaning of Tools	<p>Clean all tools and application equipment with water immediately after use. Hardened / cured material can only be removed mechanically.</p>
Curing Details	

**Waiting Time /
Overcoating**

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

Substrate Temperature	Relative humidity	Minimum	Maximum
+20°C	50%	~ 2 hours	After thorough cleaning ¹⁾ Sikalastic®-560 can be overworked with itself at any time
+30°C	50%	~ 1 hour	

Before applying Sikalastic®-560 on Sikalastic®-560 (without fleece) allow 1st coat to dry:

Substrate Temperature	Relative humidity	Minimum	Maximum
+20°C	50%	~ 6 hours	After thorough cleaning ¹⁾ Sikalastic®-560 can be overworked with itself at any time
+30°C	50%	~ 4 hours	

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:

Substrate Temperature	Relative humidity	Minimum	Maximum
+20°C	50%	~ 24 hours	After thorough cleaning ¹⁾ Sikalastic®-560 can be overworked with itself at any time
+30°C	50%	~ 12 hours	

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

**Applied Product ready
for use**

Substrate Temperature	Relative humidity	Touch dry	Rain resistant	Full cure
+20°C	50%	~ 2 hour	~ 8 hours	~ 4 days
+30°C	50%	~ 1 hour	~ 4 hours	~ 2 days

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.

**Notes on Application /
Limitations**

Do not apply Sikalastic®-560 on substrates with rising moisture.

Always 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.

Ensure that Sikalastic®-560 is totally dry and the surface is without pinholes before applying any top coat.

Do not allow temporary ponding 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.

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 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)

Value Base

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.

Health and Safety Information

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. REACH relevant information is available in the most recent SDS.

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.

EU Regulation 2004/42

VOC - Decopaint Directive

According to the EU-Directive 2004/42, the maximum allowed content of VOC (Product category IIA / j type **sb**) is 550 / 500 g/l (Limits 2007 / 2010) for the ready to use product.

The maximum content of **Sikalastic®-560** is < 500 g/l VOC for the ready to use product.

USGBC LEED Rating

Sikalastic®-560 conforms to the requirements of LEED EQ Credit 4.2: Low –Emitting Materials: Paints & Coatings SCAQMD Method 304-91 VOC Content < 100g/l



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