

PRODUCT DATA SHEET

Sikalastic®-506 SA

ACRYLIC LIQUID APPLIED ROOF COATING

DESCRIPTION

Sikalastic®-506 SA is a cold-applied, one component waterborne liquid applied membrane, elastic and resistant to yellowing. Suitable for use in hot and tropical climatic conditions.

USES

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

CHARACTERISTICS / ADVANTAGES

- Elastic and crack-bridging
- UV stable and resistant to yellowing
- One component - ready to use
- Excellent adhesion on porous substrates
- Water vapour permeable
- Good weather resistance

PRODUCT INFORMATION

Packaging	20 kg plastic pail	
Shelf life	18 months from date of production if stored properly in original, unopened and undamaged sealed packaging.	
Storage conditions	Store in dry conditions in original packaging at temperatures between +5 °C and +30 °C. Protect from direct sunlight and frost.	
Appearance and colour	White, liquid form	
Density	~1.3 kg/l	(ASTM D1622)
Solid content by mass	~63%	
Solid content by volume	~48%	
Viscosity	20000-30000 mPa-s (Brookfield Viscometer at +25 °C)	(ASTM D7876)

TECHNICAL INFORMATION

Tensile strength	Initial Tensile strength	~5.5 N/mm ²	(ASTM D412)
	Initial Elongation	~550%	
	Tensile strength after UV exposure	~5.0 N/mm ²	
	Elongation after UV exposure	~500%	
Note: For artificial weathering (UV exposure) details refer to below Note: 1 mm DFT, free film tested at +23 °C, after 28 days curing			
Tensile adhesion strength	~2.0 N/mm ² (after water immersion, +23 °C)		(ISO 13007-2)
Service temperature	-5 °C min. / +80 °C max.		
Permeability to water vapour	≤1.35 g/m ² /24 hours		(ASTM E96)
Behaviour after artificial weathering	Requirement:	Result:	(ASTM D822)
	The paint film shall show no blistering, cracking, chalking, significant color fading and gloss reduction after 250 hours exposure to QUV.	Pass	

SYSTEM INFORMATION

System structure	Build up:	Sikalastic®-506 SA (applied in minimum of 2 coats)
	Substrates:	Cementitious, brick, stone
	Primer:	Please refer to substrate pre-treatment
	Dry film thickness (DFT)	Minimum ~0.35 mm, depending on application field and project specification
	Total consumption:	Minimum ~1.0 kg/m ² in 2 coats, depending on application field and project specification
	Optional reinforcement	Sika® Reemat Premium
Note: Do not apply more than 0.50 kg/m ² Sikalastic®-506 SA per coat for layers without reinforcement.		
Dry film thickness	Recommended dry film thickness (DFT) to achieve stated properties ≈1.0 mm	

APPLICATION INFORMATION

Ambient air temperature	+8 °C min. / +40 °C max.																				
Relative air humidity	80 % max.																				
Dew point	Beware of condensation. Surface temperature during application must be at least +3 °C above dew point.																				
Substrate temperature	+8 °C min. / +40 °C max.																				
Substrate moisture content	< 6 % moisture content. No rising moisture according to ASTM (Polyethylene-sheet). No water / moisture / condensation on the substrate.																				
Waiting time to overcoating	<p>Before applying the base coat of Sikalastic®-506 SA on the second coat of Sikalastic®-506 SA allow intermediate coats to fully cure:</p> <table border="1"> <thead> <tr> <th>Substrate Temperature</th> <th>Relative humidity</th> <th>Minimum</th> <th>Maximum¹⁾</th> </tr> </thead> <tbody> <tr> <td>+10 °C</td> <td>50 %</td> <td>~8 h</td> <td>3 months</td> </tr> <tr> <td>+20 °C</td> <td>50 %</td> <td>~6 h</td> <td>3 months</td> </tr> <tr> <td>+30 °C</td> <td>50 %</td> <td>~4 h</td> <td>3 months</td> </tr> </tbody> </table> <p>¹⁾ Assuming that all dirt has been removed and intercoat contamination is avoided. Note: Times are approximate and will be affected by coating thickness and changing ambient conditions particularly temperature and relative humidity. Low temperature and high humidity retard curing, while high temperatures and low humidity accelerate curing progression. The above times are based on a coating thickness of 0.35 kg/m².</p>					Substrate Temperature	Relative humidity	Minimum	Maximum ¹⁾	+10 °C	50 %	~8 h	3 months	+20 °C	50 %	~6 h	3 months	+30 °C	50 %	~4 h	3 months
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+20 °C	50 %	~6 h	3 months																		
+30 °C	50 %	~4 h	3 months																		
Applied product ready for use	Substrate Temperature	Relative humidity	Touch dry	Rain, water & condensation resistant	Full cure																
	+10 °C	50 %	~5 h	~14 h	~7 d																
	+20 °C	50 %	~3 h	~10 h	~5 d																
	+30 °C	50 %	~2 h	~6 h	~3 d																

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

- Do not apply Sikalastic®-506 SA 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.
- Sikalastic®-506 SA may be flood tested when fully cured using 50 millimeter depth of water for a maximum period of 24 hours.
- Ensure that each coat of Sikalastic®-506 SA is totally dry and the surface is without pinholes before applying further coats.
- Do not apply Sikalastic®-506 SA if inclement weather such as rain, fog or extreme humidity (80% max.) causing condensation is expected.
- Ensure that the applied Sikalastic®-506 SA has sufficient curing time (see curing times above) before any such inclement weather is expected.
- Do not allow temporary ponding or moisture (Dew, Condensation etc.) 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. It is recommended to carry out Adhesion and Compatibility tests with the Primer prior to application of following coats.
- Sikalastic®-506 SA should not be applied on areas subject to long-term ponding water.
- Sikalastic®-506 SA should not be applied for Roofing structures with a positive pitch of less than 3%.
- If aesthetics are important and normal drying times are to be achieved, do not apply Sikalastic®-506 SA top coats with consumption rates greater than 0.5 kg/m².
- Do not apply Sikalastic®-506 SA directly on insulation boards. Sikalastic® Flexitape Heavy or Sika® Reemat Premium can be applied at areas with high movements, irregular substrate or to bridge cracks, joints and seams on the substrate as well as for details. Sikalastic® Flexitape Heavy or Sika® Reemat Premium can be used as total reinforcement or for partial reinforcements over dynamic cracks and joints.
- Sikalastic®-506 SA is not recommended for pedestrian traffic. Sikalastic®-506 SA shall be covered with appropriate paving materials if required.
- Do not apply cementitious products for example tile adhesives directly onto Sikalastic®-506 SA, contact Sika Technical Department for more information.

- Sikalastic®-506 SA is to be used mainly in exposed applications and is not for inverted buried roofing systems.
- Sikalastic®-506 SA should not be subject to permanent water immersion.
- Sikalastic®-506 SA may need to be maintained with additional coatings.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

EQUIPMENT

- High Pressure Jet Washer (minimum 150 bar): 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®-506 SA should be mixed for one minute using a slow speed (300-500 rpm) drill and basket type paint mixer.
- Solvent resistant short-piled roller: Used in the application of Sikalastic®-506 SA to ensure a consistent thickness of the seamless SikaRoof® systems. Thick hair brush: For application of Sikalastic®-506 SA to all details and penetrations.
- Airless spray equipment: Used only for the roof coating systems / top coats of reinforced systems. Two spray applied layers is the minimum requirement.

SUBSTRATE PREPARATION

All substrates must be cleaned and prepared using high pressure water jet. Abrasive blast cleaning, scari-fying equipment to or other suitable approved mechanical methods.

Cementitious substrates:

New concrete should be cured for at least 28 days and should have a pull-off strength ≥ 1.5 N/mm². Loose friable material and weak concrete must be completely removed by mechanical means to achieve an open textured surface and all 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 the appropriate Sika® products. Refer to Sika's Technical Department for further advice. High spots must be removed by for example 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 Sikalastic®-506 SA either when the concrete temperature is falling or stable can reduce outgassing. Prime the substrate before applying the Sikalastic®-506 SA.

Brick and stone:

Mortar joints must be sound and flush pointed. Use localised reinforcement over connection joints and prime before applying Sikalastic®-506 SA.

SUBSTRATE QUALITY / PRE-TREATMENT

Substrate	Primer	Consumption [kg/m ²]
Cementitious substrates	Sikalastic®-506 SA diluted with 10-15 % water	~0.3

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

MIXING

Prior to application, stir Sikalastic®-506 SA thoroughly for 1 minute in order to achieve a homogeneous mixture using a slow speed (300 - 500 rpm) drill and basket type paint mixer. Overmixing must be avoided to minimize air entrainment.

APPLICATION

Prior to the application of Sikalastic®-506 SA the priming coat must have cured tack-free. Protect adjacent areas from splashes, over painting, damage etc. with an adhesive tape or plastic. Sikalastic®-506 SA is applied in 2 – 6 coats as per the required system. Prior to the application of each coat the indicated waiting times must be followed. Sikalastic® Flexitape Heavy or Sika® Reemat Premium is applied at areas having high movements, irregular substrate or to bridge cracks, joints and seams on the substrate. Please note, always begin with detailing works prior to waterproofing the horizontal surface.

CLEANING OF EQUIPMENT

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

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

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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ISO 45001: Sika UAE LLC,
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All products are supplied under
a management system certified
to conform to the requirements
of the quality, environmental
and occupational health &
safety standards ISO 9001,
ISO 14001 and ISO 45001.

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