

# PRODUCT DATA SHEET

## Sikalastic®-500

### SINGLE COMPONENT, ULTRA HIGH SOLIDS, LIQUID APPLIED SILICONE ROOF COATING

#### PRODUCT DESCRIPTION

Sikalastic®-500 is a versatile, low VOC, ultra high solids, single-component, liquid applied silicone roof coating. It provides superior UV resistance over a variety of roof substrates. The main features of Sikalastic®-500 are its high solids content, rapid cure and superior physical properties. Certified to meet CoolRoofRatingCouncil (CRRC) and EPA guidelines for ENERGY STAR® compliance.

#### USES

The complete system provides tenacious adhesion with an existing roof system to form a monolithic membrane. These existing roofs include but are not limited to modified bitumen/built-up roofs, concrete, EPDM/HYPALON, PVC, TPO, and metal.

#### CHARACTERISTICS / ADVANTAGES

- VOC Compliant: < 50 g/l VOC maximum in California.
- UV resistant: Slows degradation caused by normal weathering, aging, and ultraviolet rays
- Reflective Top Coat: Can reduce cooling costs by reflecting UV rays. The high reflectivity also helps colors maintain their original appearance, whereas other roof coatings tend to fade and sun bleach at much quicker rates.

- Waterproof: Able to withstand ponding water.
- Durability: Infrequent and low maintenance costs.
- High tensile strength and abrasion resistance.
- Excellent adhesion to a variety of roof surfaces.
- Ease of application - fast and simple to install
- Can be used to reinforce penetrations and terminations, and make spot repairs.
- Retains its integrity from -80 °F to 250 °F (-62–121 °C)
- Accelerator is available to shorten cure time.
- Open window (recoat time) maximum 7 days between the coats.

#### APPROVALS / STANDARDS

- Miami Dade: NOA No.: 17-0824.02
- NSF/ANSI 61 Section 5 - 2016
- CRRC listed, Product ID 0674-0024
- UL 790, File R 39379
- Class A for Fluid Applied Coating System on DensDeck® Roofboard with unlimited slope
- Class A, B or C for Maintenance and Repair Systems\*\*

\*\*Existing Roof System: — Any Class A, B or C uncoated, insulated or uninsulated, modified bitumen membrane, Type G3 mineral surfaced cap BUR, EPDM, TPO, Hypalon, PVC, TPA, or CPE single ply membrane system, mechanically fastened or fully adhered, to retain existing Classification. (Classification and maximum incline will be the same as that of the Classified Roofing System)

#### PRODUCT INFORMATION

<b>Chemical Base</b>	Moisture cured Silicone
<b>Packaging</b>	5 gal. (19 L) pail 55 gal. (208 L) drum

<b>Color</b>	White, Tan, Light Gray, Custom Colors available upon request	
<b>Shelf Life</b>	8 months (unopened container)	
<b>Storage Conditions</b>	Keep containers closed and store in a dry, cool place away from heat, sparks, open flame, excessive heat, and moisture. Keep material stored above 65 °F (18 °C). Open containers should be blanketed with dry nitrogen before using.	
<b>Solid content by weight</b>	98 %	(ASTM D-2697)
<b>Solid content by volume</b>	98 %	(ASTM D-2697)
<b>Viscosity</b>	8000-11000 cps. (at 75 °F (24 °C) and 50 % R.H.)	

## TECHNICAL INFORMATION

<b>Shore A Hardness</b>	85 +/- 5	(ASTM D-2240)
<b>Tensile Strength</b>	300 psi	(ASTM D-412)
<b>Elongation at Break</b>	200 %	(ASTM D-412)
<b>Tear Strength</b>	45 lb./in.	(ASTM D 624)
<b>Solar Reflectance</b>	0.88	(ASTM C1549)
<b>Thermal Emittance</b>	0.91	(ASTM C1371)
<b>Solar Reflectance Index</b>	112	(ASTM E1980)

## APPLICATION INFORMATION

<b>Coverage</b>	1.5 gal./100 sq.ft - 24 mils wft 2.5 gal./ 100 sq.ft- 40 mils wft		
<b>Ambient Air Temperature</b>	41 °F (5 °C) min. / 95 °F (35 °C) max.		
<b>Relative Air Humidity</b>	80 % R.H. max.		
<b>Substrate Temperature</b>	41 °F (5 °C) min. / 140°F (60°C) max.		
<b>Dew Point</b>	Beware of condensation. The substrate and uncured coating must be ≥ 5 °F (3 °C) above dew point.		
<b>Substrate Moisture Content</b>	≤ 4 % moisture content Test method: Sika®-Tramex meter No rising moisture according to ASTM (Polyethylene-sheet)		
<b>Substrate Pre-Treatment</b>	<p><b>Sikalastic®-501 Primer</b> : modified bitumen ( bleed blocking of asphalt substrates), metal manually cleaned (rust inhibitor) , acrylic elastomeric coatings, polyurethane elastomeric coatings.</p> <p><b>Sikalastic®-502 Primer</b> : concrete, metal, wood, masonry, polyurethane elastomeric surfaces</p> <p><b>Sikalastic®-503 Primer</b> : PVC, FPO</p> <p><b>Sikalastic®-504 Primer</b> : EPDM, Hypalon</p> <p>For application instruction for the primer, please refer to Product Data Sheet of the Primer.</p>		
<b>Drying Time</b>	without Accelerator	4 hours	at 75 °F (24 °C) and 50 % R.H.
	with Accelerator	2 hours	at 75 °F (24 °C) and 50 % R.H.

## APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

1. Remove all unnecessary and non-functional equipment and debris from the roof.
2. Remove dirt, and foreign material detrimental to adhesion or application of fluid-applied roofing by thoroughly cleaning all roof surfaces with a high pressure (2,000–2500 psi, 13.79–17.24 MPa) wash. Surfaces contaminated with oil, grease, animal fats, etc. must be removed using tri-sodium phosphate and water, or other solutions as required by job conditions and as permitted by local, state, and federal regulations. Remove all cleaning solutions with plenty of fresh water and allow to dry.
3. Membranes with seam and flashing failure must be repaired using traditional and professional corrective measures and then detailed.
4. Seal watertight all round projections, machine legs, sign posts, guide wire straps, inside and outside corners, cant strips, gutters, parapet walls, caps, and seal watertight all screws, seams, skylights, joints, pipes, voids, protrusions and any areas where water could enter through the roof.
5. Clean and Seal all areas around drains watertight.
6. Allow roof and other prepared surfaces to dry completely before proceeding with field priming and/or coating application. Note: Thickness values of cured film are averages and can vary due to finish of surface. Always check the weather prior to application. Depending on the ambient, and substrate temperatures, relative humidity, and dew point take extra time and caution when applying the system within 2 to 6 hours of precipitation and/or when raw or freezing temperatures are experienced or anticipated. Do not apply over wet insulation or related materials.
7. Sikalastic® 500 Base shall extend a minimum of 3" (76.2 mm) beyond the edges of the repair, feathered onto the substrate.

## MIXING

Mix 55 gal. (208 L) drums and 5 gal. (19 L) pails with a variable speed drill utilizing a jiffy mixer to suspend any settled pigments until a uniform color and consistency is achieved. Mixing time will vary based on temperature and atmospheric conditions. Usually 3 minutes.

## APPLICATION

Prior to coating any surface, be sure the coating will adhere by performing an adhesion test (ASTM D-903). Coating may be applied by brush, roller, or airless spray equipment. Do not apply when temperatures are below 41 °F (5 °C) or when precipitation is in the forecast within 24 hours. In areas where the roof is subject to foot traffic, it is recommended to apply walkway pads for added protection and slip resistance. Apply Primer to the substrate according to the application instruction from the Primer PDS, and allow to dry.

Always start with details using Sikalastic®-500 Flash : Round projections , machine legs, sign posts, guide wire straps, inside and outside, corners, gutters, parapet walls, penetrations and similar areas should be flashed.

Repair any damaged metal and caulk and seal watertight all screws, seams, transitions, terminations, penetrations, skylights, joints, pipes, voids, protrusions and any areas where water could enter through the roof. On metal roofs with standing seams, apply Sikalastic®-500 Flash sealing them completely. Make certain that all walking pads are appropriately and adequately secured. Use Sikalastic®-500 Flash to caulk all edges of walking pads.

Apply Sikalastic®-500 at the rate of 1½ gal./100 ft<sup>2</sup> at 24 wet mils, to yield a total of 24 wet mils of coverage (minimum requirement for 10 year material warranty). Then apply another top coat Sikalastic®-500 at the rate of 1 gal/100 ft<sup>2</sup> @ 16 wet mils, to yield a total of 40 wet mils of coverage (minimum requirement for 20 year material warranty).

## LIMITATIONS

- To avoid dew point conditions during application, substrate temperature must be at least 5 °F (3 °C) above measured dew point temperatures.
- Minimum ambient and substrate temperature during application and curing of material is 41 °F (5 °C); maximum is 95 °F (35 °C). Surface temperatures must be no higher than 140 °F (60 °C). Frequent monitoring of ambient and substrate temperature should always be done when applying polyurethane resins. Note that low temperatures and low humidity will slow down the cure, and high temperatures and high humidity will accelerate it.
- Do not apply on substrates with moisture content greater than 4% by weight, measured by Tramex Concrete Moisture Encounter meter.
- Minimum age of concrete must be 28 days depending on curing and drying conditions.
- Do not thin with solvents.
- Do not store materials outdoors directly exposed to sunlight and moisture. Cover and protect materials with breathable type covers such as canvas tarpaulins to allow venting and protection from weather and moisture. Observe temperature storage and conditioning requirements.
- Do not apply to substrate surfaces where moisture vapor transmission will occur during application and cure.
- This condition may be checked using ASTM D 4263 (Polyethylene sheet method).
- Substrate must be dry prior to application. Do not apply to a frosted, wet or damp surface. Allow sufficient time for the substrate to dry after rain or inclement weather, as there is the potential for bonding problems.
- On substrates likely to exhibit outgassing apply during falling ambient and substrate temperature. If applied during rising temperature pinholing or blistering may occur.
- Use sunglasses with UV filter when applying highly reflective Sikalastic®-500 White.
- Do not apply cementitious products, such as tile mor-

tar directly onto Sikalastic®-500 . See Sikalastic® 624 WP or Sikalastic®-644 Lo-VOC Product Data Sheet.

- Any repairs required to achieve a level surface must be performed prior to application (consult a Sika representative for guidance on various product solutions). Surface irregularities may reflect through the cured system.
- Unvented metal pan, split/sandwich slab with encapsulated membrane and/or insulation, cinder fill decks, and lightweight insulating concrete deck overlays should not be covered with Sikalastic® RoofPro systems without additional deck evaluation and subsequent approval by Technical Services.
- Do not subject to continuous immersion, i.e., fountains, ponds, pools, or interior of tanks.

## BASIS OF PRODUCT DATA

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

## LOCAL RESTRICTIONS

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, product label and Safety Data Sheet which are available online at <http://usa.sika.com/> or by calling Sika's Technical Service Department at 800.933.7452 nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instructions for each Sika product for each Sika product as set forth in the current Product Data Sheet, product label and Safety Data Sheet prior to product use.

## ECOLOGY, HEALTH AND SAFETY

Keep container tightly closed. Keep out of reach of children. Not for internal consumption. For industrial use only. For professional use only. For further information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety related data. Read the current actual Safety Data Sheet before using the product. In case of emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

## LEGAL NOTES

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, product label and Safety Data Sheet which are available online at <http://usa.sika.com/> or by calling Sika's Technical Service Department at 800-933-7452. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instruction for each Sika product as set forth in the current Product Data Sheet, product label and Safety Data Sheet prior to product use. Sika warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. No other warranties express or implied shall apply including any warranty of merchantability or fitness for a particular purpose. Sika shall not be liable under any legal theory for special or consequential damages. Sika shall not be responsible for the use of this product in a manner to infringe on any patent or any other intellectual property rights held by others. Sale of Sika products are subject to Sika's terms and conditions of sale available at <http://usa.sika.com/> or by calling 201-933-8800.

**Sika Corporation**  
201 Polito Avenue  
Lyndhurst, NJ 07071  
Phone: 800-933-7452  
Fax: 201-933-6225

**Sika Canada Inc.**  
601 Delmar Avenue  
Pointe Claire  
Quebec H9R 4A9  
Phone: 514-697-2610  
Fax: 514-694-2792

**Sika Mexicana S.A. de C.V.**  
Carretera Libre Celaya Km. 8.5  
Fracc. Industrial Balvanera  
Corregidora, Queretaro  
C.P. 76920  
Phone: 52 442 2385800  
Fax: 52 442 2250537



Product Data Sheet  
Sikalastic®-500  
April 2018, Version 01.02  
02091570100000002

Sikalastic-500-en-US-(04-2018)-1-2.pdf