

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 faster rates.
- Waterproof with better ponding water resistance.*
- 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 available to shorten cure time.
- Open window (recoat time) maximum 7 days between the coats.

*Compared to Acrylic coatings. Standard Practice and requirement for warranty is still to reslope areas water ponds for more than 48 hours.

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

Chemical Base	Moisture cured Silicone	
Packaging	5 gal. (19 L) pail 55 gal. (208 L) drum	
Color	White, Tan, Light Gray, Custom Colors available upon request	
Shelf Life	12 months (unopened container)	
Storage Conditions	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.	
Solid content by mass	92-96 %	(ASTM D2697)
Solid content by volume	92-96 %	(ASTM D2697)
Viscosity	12,500 +/- 2,500 cps. (at 75 °F (24 °C) and 50 % R.H.)	

TECHNICAL INFORMATION

Shore A Hardness	50 +/- 5	(ASTM D2240)
Tensile Strength	300 psi	(ASTM D2370)
Elongation at Break	250 %	(ASTM D412)
Tear Strength	45 lb./in.	(ASTM D624)
Permeability to Water Vapor	7.9 US Perms	(ASTM E96)
Solar Reflectance	0.88	(ASTM C1549)
Thermal Emittance	0.91	(ASTM C1371)
Solar Reflectance Index	112	(ASTM E1980)

SYSTEM INFORMATION

System Structure Apply Sikalastic®-500 at the below coverage rates for the respective system length. NOTE: The below coverage rates are the minimum required. Rough, irregular or granulated surfaces may require additional coating to meet minimum dry film mils

	RoofCoat 10	RoofCoat 15	RoofCoat 20
Primer	See Primer Chart	See Primer Chart	See Primer Chart
Sikalastic®-500	24 wet mils (1.5 gal/100 SF)	32 wet mils (2.0 gal/100 SF)	40 wet mils (2.5 gal/100 SF)

APPLICATION INFORMATION

Coverage	1.5 gal./100 sq.ft - 24 mils wft 2.5 gal./ 100 sq.ft- 40 mils wft
Ambient Air Temperature	41 °F (5 °C) min. / 95 °F (35 °C) max.
Relative Air Humidity	80 % R.H. max.
Substrate Temperature	41 °F (5 °C) min. / 140°F (60°C) max.

Dew Point	Beware of condensation. The substrate and uncured coating must be $\geq 5\text{ }^{\circ}\text{F}$ ($3\text{ }^{\circ}\text{C}$) above dew point.		
Substrate Moisture Content	$\leq 4\%$ moisture content Test method: Sika®-Tramex meter No rising moisture according to ASTM (Polyethylene-sheet)		
Substrate Pre-Treatment	Substrate	Sikalastic Primer	
	Modified bitumen (asphalt bleed blocking)	501	
	Acrylic elastomeric coatings	501	
	Polyurethane elastomeric coatings	501/502	
	Metal manually cleaned (rust inhibitor)*	502	
	Concrete, masonry & wood wall transitions	502	
	PVC/TPO/FPO/Hypalon**	503	
	EPDM***	504	
	*Abrade metal surfaces where appropriate **Some surfaces may be manufactured with a lacker finish, contact Sika if pull/adhesion test yields less than required pli. ***Use Sikalastic-504 Rinseable Primer to clean the substrate (wash this primer off and allow the substrate to dry). Then apply Sikalastic-500 to complete a pull/adhesion test.		
Drying Time	without Accelerator	4 hours	at $75\text{ }^{\circ}\text{F}$ ($24\text{ }^{\circ}\text{C}$) and 50 % R.H.
	with Accelerator	2 hours	at $75\text{ }^{\circ}\text{F}$ ($24\text{ }^{\circ}\text{C}$) and 50 % R.H.

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.

LIMITATIONS

- To avoid dew point conditions during application, substrate temperature must be at least $5\text{ }^{\circ}\text{F}$ ($3\text{ }^{\circ}\text{C}$) above measured dew point temperatures.
- Minimum ambient and substrate temperature during application and curing of material is $41\text{ }^{\circ}\text{F}$ ($5\text{ }^{\circ}\text{C}$); maximum is $95\text{ }^{\circ}\text{F}$ ($35\text{ }^{\circ}\text{C}$). Surface temperatures must be no higher than $140\text{ }^{\circ}\text{F}$ ($60\text{ }^{\circ}\text{C}$). 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 mortar 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® RoofCoat systems without additional deck evaluation and subsequent approval by Technical Services.
- Do not subject to continuous immersion, i.e., fountains, ponds, pools, interior of tanks, or anywhere water ponds for more than 48 hours.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

1. Applicator is responsible for confirming the roof is in sound condition with an acceptable, fully secured substrate, proper slope to drain, and is readily acceptable for a coating restoration system.
2. Applicator is responsible for completing a moisture scan of all roof surfaces to receive Sikalastic®-500. Any wet insulation should be removed and replaced. The roof areas where insulation was removed and replaced, repair with a like roof system to the existing roof system before applying Sikalastic®-500.
3. Tighten and/or replace all existing fasteners. Install crickets and complete all needed sheet metal repairs.
4. Remove all unnecessary and non-functional equipment and debris from the roof.
5. 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.
6. Membranes with seam and flashing failures must be repaired using traditional and professional corrective measures and then detailed.
7. Seal to watertight around 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.
8. Clean and seal all areas around drains to watertight.
9. Allow roof and other prepared surfaces to dry completely before proceeding with field priming and/or coating application.
10. Note: Thickness values of cured films are averages and can vary due to surface finish. Rough, irregular or granulated surfaces may require additional coating to meet minimum dry film mils.
11. Prior to coating any surface, be sure the coating will adhere by performing an adhesion test (ASTM D-903).
12. Prime all surfaces with the appropriate primer listed above according to the application instructions from the Primers' Product Data Sheet, and allow to dry

13. 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.
14. Sikalastic®-500 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 appropriate primer to the substrate according to the application instruction from the Primer PDS, and allow to dry.

Always start with details using Sika® Flexitape Heavy embedded in Sikalastic®-500 or Sikalastic®-500 Flash, or Sika® Joint Tape SA, including: round projections, machine legs, sign posts, guide wire straps, inside and outside, corners, gutters, parapet walls, penetrations and similar areas. 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 Sika® Joint Tape SA, or Sika Flexitape Heavy embedded in Sikalastic®-500 Flash, sealing them completely. Metal roof projects requiring a warranty should be pre-inspected by a Sika Representative for metal seam detailing. 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 below coverage rates for the respective system length. NOTE: The below coverage rates are the minimum required. Rough, irregular or granulated surfaces may require additional coating to meet minimum dry film mils

System Length	Gal/Square	Dry MILs
10 years	1.5	23
15 years	2.0	31
20 years	2.5	38

Roof coatings should be properly maintained following industry standards of care and maintenance including annual inspections by qualified roofing contractors. All required maintenance or repairs should be undertaken immediately.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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 the product's shelf life. User determines suitability of product for intended use and assumes all risks. User's and/or buyer's sole remedy shall be limited to the purchase price or replacement of this product exclusive of any labor costs. **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.**

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Product Data Sheet

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