

**SiliconEx 500** is SolarEx's Premium Liquid Silicone Roof Coating. **SiliconEx 500** is 100% Silicone, solvent-free, single component, moisture cured liquid roof coating. It cures to form a highly elastic, impermeable, and monolithic membrane. **SiliconEx 500** creates a shield that is ideally suited for flat roofs and it protects simultaneously against ponding-water and acts as Cool Roof coating by reflecting UV & sunlight. It is specially designed to maintain maximum reflectivity of sunlight even as it ages.

### KEY FEATURES

- **100% Waterproof** - Hydrophobic in nature
- Extends roof life and reduce maintenance costs
- Highly reflective **Cool Roofing** helps lower utility bills
- Strongest adhesion with almost all types of substrates
- Extremely durable, weather resistant and **UV resistant**
- Extremely easy application by brush, roller or airless spray

### APPLICATION GUIDELINES

#### Applicable Substrates:

**SiliconEx 500** can be directly applied to almost all types of substrates such as metal, concrete, wood or on top of any existing coatings such as, TPO, EPDM, Singly Ply membrane, Smooth or Granulated membrane.

#### Preparation:

The surface must be clean from loose particles, dirt, dust, oil, etc. **SiliconEx 500** should generally be applied on dry and sound surfaces. Old coatings should ideally be removed if they are loosely held on to the existing surface. The substrate should be pressure washed prior to coating application. A moisture content of less than 5% is generally recommended in concrete surfaces. All joints, cracks and extrusions should be sealed using **SealEx 510 Mastic**-100% Silicone Sealant or **SealEx Tape** prior to the application of **SiliconEx 500**. EPDM roofs may require aggressive power washing and need to be cleaned twice to remove all surface contamination

#### Priming:

**SiliconEx 500** can mostly be applied without the use of a primer. However, it is recommended to use **BleedEx 400** as bleed-block primer on top of bitumen surfaces or **PrimEx 505** as Anti-Rust primer for rusted metal sheets. Generally, an adhesion test is recommended before application to determine the requirement of a primer to improve adhesion.

#### Mixing:

Mix well prior to the use, as coating may settle during storage. Mixing can be done using a drill or a mixing paddle. Use a clean and min. 3" (7.5 cm) diameter mixing paddle or hand mix with a suitable and clean paddle until consistent viscosity is achieved. Do not thin the product.

### TECHNICAL PROPERTIES

Characteristics	*Values
Density	136 g/cm <sup>3</sup>
Solids by Weight(ASTM D 1644)	96%
Solids by Volume(ASTM D 2697)	96%
Viscosity(ASTM D 2196)	8,000 – 10,000 cps
Tensile Strength(ASTM D 2370)	230 psi
Elongation at Break(ASTM D 2370)	250%
Hardness Shore A(ASTM D 2240)	40 – 50
Water Vapor Permeability(ASTM E 96)	5 perms
Reflectivity (initial)	87
Reflectivity (3-Year Aged)	0.72
Emissivity	90
SRI	110
VOC	8 g / l
Touch Dry (73°F & 75% RH)	70 – 90 min

\*Above values are nominal test values

#### Application:

**SiliconEx 500** can be applied using nap roller, soft brush, or airless spray gun. **SiliconEx 500** can be applied in single coat application, however, in case of second coat application, it can be applied between 6 - 24 hours from first coat application. Drying time is significantly affected by the ambient temperature and humidity. Use a 1/2" (12 mm) nap roller, cover-dip roller directly into pail and apply. Alternatively pour product onto flat roof surface and roll out evenly, or spread with a squeegee then immediately back roll for smooth finish do not over roll). Airless Spray can also be done using hydraulic pump with pressure from 5000 to 7000 psi (345 to 485 bar) and tip size can be 645 (30 cm fan with 1.14 mm orifice). Mineral Spirits can be used to clean the spraying equipment after use. Textured surfaces may require additional coats to achieve a minimum 32 mils (810 µm) dry film thickness. To make walkways, coarse quartz particles with round edges can be sprinkled on top of freshly applied topcoat. **SiliconEx 500** is 100% UV and color stable.

#### Weather Conditions:

Rainy weather should be avoided. It is recommended to carry out **SiliconEx 500** application between temperatures 40°F to 120°F (5°C to 50°C) and relative humidity lower than 70%

#### Coverage:

Coverage of 2 - 3 gal/square (0.8 to 1.2 l/m<sup>2</sup>) is recommended and can be achieved in a single coat. However, consumption may vary depending on surface texture, porosity, and application specification, and additional coats may be required. Minimum recommended DFT is 32 mils(810 µm).

### Curing time

Tack Free in 70-80 min, Fully Cures within 12 to 24 hours depending on weather conditions.

### Shelf life:

Minimum 18 months from the date of production in sealed containers (when stored in dry, cool, and covered area)

### Colors:

White & Grey

### Packaging Size:

4.75 Gallon (18 Liters)

CRRC	Rated Product ID #: 3448-000(smooth)	
	Smooth	Rough
Solar Reflectance	Initial / Aged 0.87 / 0.72*	Initial / Aged Not Rated
Thermal Emittance	0.90 / 0.90*	Not Rated

\*The ratings shown are subject to CRRC testing program conditions, materials, and installation. Not intended as a warranty or endorsement, and do not constitute a CRRC rating requirement and limitation. For the purposes of a CRRC rating, a rough substrate is defined as a surface that is equally or more reflective than a smooth, uncoated metal or plastic substrate.

CRRC Rated Ratings: CRRC ratings are based on laboratory testing and are not intended to be used as a warranty or endorsement of the product or its performance.

### PRECAUTIONS

#### Storage & Handling:

Protective clothing, gloves, and eyewear should be used during application. Do not heat the pails or place the pails near the heated surface. Keep the pails sealed, when not in use. Material must be stored in a shaded area with temperatures between 50°F and 85°F (10°C and 30°C). Storage at temperatures outside these conditions or at relative humidity over 65% will reduce the shelf life. Ensure to tightly seal the pail after opening and when not in use. Opened pails must be used within 3-5 days after opening. If a skin forms at the top of opened pail, remove prior to mixing material. When transporting this product, ensure that the lid and openings are tightly sealed. Do Not allow products to tumble or shift as this may cause leakage to occur. Do not transport on passenger seats or inside the passenger compartment of any vehicle.



### Warranty & Limitations of Liability:

We warrant that this product shall be free of any defect in material at the time of purchase. This warranty does not extend to any defect or failure caused by misuse and/or incorrect application. **LIMITATION OF LIABILITY:** In the event of a defect or failure falling under this warranty, Buyer's sole remedy shall be the refund of the purchase price or replacement of the defective material, at Seller's option. Under no circumstances shall Seller be liable for any losses or damages caused by this product, whether direct, indirect, special, incidental, or consequential damages, whether based on contract or any other legal theory.

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