

# AlphaGuard™ Si 100

High performance, high solids, one component, moisture cure silicone coating

## FEATURES

Inorganic Compound

High Solids

One Component

Versatile

Highly Reflective (White)

## BENEFITS

- Superior weathering characteristics
- Yields more dry waterproofing than lower solids products
- No mixing of multiple components
- No extra labor steps
- No pot life limitations
- Suitable for use over many substrates/roof types
- Lowers rooftop temperatures, resulting in less stress and potential energy savings
- CRRC Listed

## DESCRIPTION

AlphaGuard Si 100 is a high solids, single component, breathable, liquid applied silicone roof system. AlphaGuard Si 100 meets or exceeds the requirements of ASTM D6694 Standard Specification for Liquid-Applied Silicone Coating Used in Spray Polyurethane Foam Roofing Systems.

## BASIC USES

AlphaGuard Si 100 can be used to restore or repair approved existing roofing substrates.

## PACKAGING

5 gal (18.9 L) pail  
50 gal (189.2 L) drum \*Packaged in 55 gal drum

## COLOR

White, Dark Grey, Light Grey, Tan and Terra Cotta

## GRADE

Brush, Roller, Spray, Squeegee & Backroll

## STORAGE

12 months shelf life in unopened containers when properly stored.

### DO NOT FREEZE

Recommended storage conditions is indoors in a ventilated, dry area removed from heat, open flame, ignition sources, and direct sunlight. Storage temperatures should range from 60-70°F (15-21°C) and must not drop below 32°F (0°C) or exceed 110°F (43°C).

On the job site, materials should remain on the pallet until use and be stored in a shaded, ventilated area. Materials should be covered with a light-colored, reflective tarp for protection against the elements. Allow for adequate air flow inside the pallets.

Shelf life could be affected if the product is not stored properly.

## APPLICATION

**Surface Preparation:** Surface must be clean, dry, in sound condition, and free of dirt, debris, and contaminants. Existing wet roofing components must be identified and replaced. Deficient areas of existing system must be repaired. All repairs should be made with like materials matching the existing components and allowed to properly cure prior to application of liquid-applied products.

If the surface has a pre-existing coating, paint, or sealant, please contact Tremco for adhesion/compatibility testing and surface preparation recommendations.

EPDM substrates require application of AlphaGuard Si Prep Cleaner prior to application.

### Mixing:

**Pails:** Use a heavy duty corded power drill with Jiffy Mixer mixing blade. Mix until product is consistent in appearance and viscosity. Do not thin.

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## APPLICATION CONTINUED

**Drums:** Use industrial drum mixing equipment to mechanically mix each container. Mix until product is consistent in appearance and viscosity. Do not thin.

**Priming:** Application of AlphaGuard Si Primer is required on asphalt based substrates and surfaces. Adhesion testing is recommended for applications on existing single-ply membranes and surfaces that have a pre-existing coating, paint, or sealant to determine if a primer is necessary. Review the recommended primer product data sheet for specific product and application information.

**Installation:** Install product using one of the approved application methods evenly at the recommended coverage rate. Use wet mil gauges to monitor coverage rates throughout application. Subsequent coats should be applied within 24 hours of prior applications.

**Non-Skid Application:** Install an additional layer of top coat in white or chosen color at 1-1½ gal / 100 sq. ft. (16-24 wet mils) (0.4-0.6 L/m<sup>2</sup>) and immediately broadcast and backroll an approved non-skid media. Color striping can be installed in 3-4" wide areas along the perimeter of the walkway area at a coverage rate of 1-1½ gal / 100 sq. ft. (16-24 wet mils) (0.4-0.6 L/m<sup>2</sup>) to provide identification of the areas on the roof.

Approved Non-Skid Media:

- Silica Sand (20-40 mesh) - Coverage: 20-30 lbs. / 100 sq. ft.
- No. 11 Roofing Granule - Coverage: 10-15 lbs. / 100 sq. ft.

## ACCEPTABLE ROOF SURFACES

BUR Gravel	BUR Smooth	Concrete	Metal	Metal Fluoropolymer	MB Granule	MB Smooth	Single-Ply	SPUF	Walls
	●				●	●	●	●	

## COVERAGE RATES

**Smooth BUR, Smooth MB, and Single-Ply Substrates:**

**Base Coat:** 1 gal / 100 sq. ft. (0.4 L/m<sup>2</sup>) (16 wet mils)

**Top Coat:** 1½ gal / 100 sq. ft. (0.6 L/m<sup>2</sup>) (24 wet mils)

**Granule Surfaced MB and SPUF Substrates:**

**Non-Skid Coat:** 1-1½ gals / 100 sq. ft. (0.4 - 0.6 L/m<sup>2</sup>) (16-24 wet mils)

**Base Coat:** 2 gal / 100 sq. ft. (0.8 L/m<sup>2</sup>) (32 wet mils)

**Top Coat:** 1½ gal / 100 sq. ft. (0.6 L/m<sup>2</sup>) (24 wet mils)

*Note: Coverage rates are listed at minimum recommended rates. The application surface can affect the necessary coverage rate. Color top coats may require higher coverage rates or additional coats to provide adequate hiding and consistent appearance.*

## TEMPERATURE/WEATHER RECOMMENDATIONS

**Min Ambient:** 40°F (4.4°C)

**Max Ambient:** 110°F (43.3°C)

- Minimum temperatures must be rising following application
- Do not apply when dew point is within 5°F (2.77°C) of ambient temperatures
- Do not apply when precipitation, fog or dew is imminent prior to cure of the product

## CURE TIMES

**Over-Coat Time:**

2 hours @ 100°F (37.7°C) / 90% RH

8-12 hours @ 40°F (4.4°C) / 20% RH

*Note: Cure times can be effected by a number of weather and jobsite conditions including but not limited to exposure to sunlight and wind, humidity, precipitation, and temperature.*

## SPRAY EQUIPMENT RECOMMENDATIONS

**GENERAL GUIDELINES**

**Component:** One-Component

**Pressure:** 3,500 psi

**Tip Size:** .030 - .039

**Filters:** Remove

**Flow Rate:** Min 3 gpm

**Hose Type:** Min 3/4" High Pressure BUNA-H Jacketed

**SPRAY EQUIPMENT  
RECOMMENDATIONS**  
CONTINUED

**CLEAN UP  
LIMITATIONS**

**PHYSICAL PROPERTIES**

**CODES & APPROVALS**

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**WHIP:** ¼" High Pressure BUNA-H Jacketed

**Product Temperature:** Ambient

- Must use heavy duty or industrial grade spray tips
- Properly clean and maintain spray equipment before, during, and after use
- Equipment should be properly grounded during use

Rule 66 Mineral Spirits or VM&P Naptha

Not recommended for use over the following:


**Roof Decks:** Cementitious wood fiber, metal, poured-in-place gypsum, structural lightweight or lightweight insulating concrete, and wood decks (includes plywood, tongue and groove, etc.).

**Products/Systems:** Asphalt-based gravel surfaced BUR systems, coal tar gravel surfaced BUR systems, clay tile, corrugated or standing seam metal roof systems, expanded or extruded polystyrene insulation, fluoropolymer finished metal, shingles, and tar-based products.

- Do not apply over asphalt surfaces without using the appropriate primer.
- Not for use under continuous immersion.

PROPERTY	TEST METHOD	TYPICAL VALUE
Accelerated Weathering	ASTM D4798, ASTM G53	Pass (5,000 hrs), No Degradation (8,760 hrs)
Elongation	ASTM D2370	187%
Indentation Hardness	ASTM D2240	50 Shore A
Low Temperature Flexibility	ASTM D522	Pass @ -15°F (-26.1°C)
Permeance	ASTM E96	6.5 perms
Tear Resistance	ASTM D624	24 lbf/in
Tensile Strength	ASTM D2370	244 psi
Water Absorption	ASTM D471	0.1%
Volume Solids	ASTM D2697	93%
Weight Solids	ASTM D1644	96%
VOC	EPA Method 24	< 50 g/L



	Rapid		
	Initial	Ratings*	Weathered
<b>Solar Reflectance</b>	<u>0.83</u>	<u>0.82</u>	<b>Pending</b>
<b>Thermal Emittance</b>	<u>0.9</u>	<u>0.9</u>	<b>Pending</b>
Rated Product ID	<u>0612-0025</u>		
Licensed Manufacturer ID	<u>0612</u>		
<b>RAPID RATINGS</b>	Classification Production Line		
<small>*CRRC Rapid Ratings: These are interim laboratory-aged values that simulate weathered values. These values will be replaced by the measured three-year aged values upon completion of the weathering process. Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effects of solar reflectance and thermal emittance on building performance may vary. Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.</small>			

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## MAINTENANCE

Your local Tremco Roofing sales representative can provide you with effective maintenance procedures which may vary, depending upon specific conditions. Periodic inspections, early repairs and preventive maintenance are all part of a sound roof program.

## PRECAUTIONS

Users must read container labels and Safety Data Sheets for health and safety precautions prior to use.

## TECHNICAL SUPPORT

Your local Tremco Roofing sales representative, working with the Technical Service Staff, can help analyze conditions and needs to develop recommendations for special applications.



Roofing & Building Maintenance

[www.tremcoroofing.com](http://www.tremcoroofing.com)

3735 Green Road  
Beachwood, Ohio 44122  
1.800.852.6013

50 Beth Nealson Drive  
Toronto, Ontario M4H 1M6  
1.800.668.9879

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