

AlphaGuard™ BIO Top Coat

High Performance, Two-Component, Bio-Based Polyurethane Top Coat

FEATURES

Bio Content

Virtually Odorless

High Solids

Low VOC

Versatile

Highly Reflective (White)

BENEFITS

- Rapidly renewable content makes product sustainable and environmentally responsible
- System is perfect for sensitive accounts such as schools, hospitals, occupied buildings, etc.
- Results in thicker dry film vs. lower solids products
- 1 g/L
- Can be applied on many roofing substrates
- Lowers rooftop temperatures resulting in less stress and potential energy savings

DESCRIPTION

The AlphaGuard BIO Top Coat is a two-component, bio-based, polyurethane liquid applied product.

BASIC USES

The AlphaGuard BIO System can be used in a variety of applications including roof restoration of weathered smooth asphalt-based BUR, modified bitumen, and single-ply systems.

PACKAGING

Pails: 3.1 gal (11.7 L) Kits

Part A - 2.2 gals (8.3 L) packaged in a 5 gal (18.9 L) container

Part B - 0.9 gal (3.4 L) packaged in a 1 gal (3.7 L) container

Drums: 140 gal (529.9 L) Kits

Part A - 2 drums total - Each containing 50 gals (189.2 L) packaged in a 55 gal (208.1 L) container

Part B - 1 drum total - Containing 41 gals (155.2 L) packaged in a 55 gal (208.1 L) container

COLOR

White, Beige, Dark Gray, Light Gray, Medium Gray, Safety Yellow, and Sand

GRADE

Brush, Roller, Spray, Squeegee & Backroll

POT LIFE

20-25 minutes, 77°F (25°C)/50% RH.

**Temperature dependent - Increasing temperature reduces expected pot-life*

STORAGE

12 months shelf life in unopened containers when properly stored.

DO NOT FREEZE PART B

Recommended storage conditions are 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

AlphaGuard BIO Top Coat - White to be used on all applications. Alternate colors can be utilized in designated striping applications of the non-skid walkway application as listed below.

Preparation: AlphaGuard BIO Base Coat or Top Coat surface must be cured, clean, dry, in sound condition, and free of dirt, debris, and contaminants prior to application.

AlphaGuard™ BIO Top Coat

APPLICATION CONTINUED

Mixing:

Product material temperatures must be above 45°F (7°C) when mixing.

Pails: Use a heavy duty power drill with Jiffy Mixer attachment. Cordless drills are not recommended and may not properly mix the materials.

Mix Part A for 1 minute before adding Part B. After adding Part B mix the combined materials for a minimum of 2 minutes moving the mix blade from top to bottom. Make sure to mix areas around side walls and bottom of pail. Improper mixing will result in non-curing material.

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

Do not break down kits into smaller quantities -MIX ENTIRE KIT.

Priming: AlphaGuard BIO Base and Top Coats should be top-coated within 72 hours of application. If cured base or top coat is exposed for longer than 72 hours, an application of Tremco BIO Prime will be required to promote adhesion between coats.

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. Never fully invert empty pails in an attempt to drain material as this may result in improperly cured material during application.

Non-Skid Application: Install an additional layer of white top coat at 1-1½ gal / 100 sq. ft. (16-24 wet mils) (0.4-0.6 L/m²) 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/m²) 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.

COVERAGE RATES

Top Coat: 2 gals / SQ (32 wet mils) (0.8 L/m²)

Non-Skid Coat: 1-1.5 gals / SQ (16-24 wet mils) (0.4-0.6 L/m²)

Tremco Plain and Simple/Extended Warranty: 3 gals / SQ (48 wet mils) (1.2 L/m²)

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 RECOMMENDATIONS

Min Ambient: 45°F (7.2°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

Skin Time: 3-4 hours @ 77°F (25°C) / 50% RH

Recoat Time: 6-7 hours @ 77°F (25°C) / 50% 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.

ACCEPTABLE ROOF SURFACES

SPRAY EQUIPMENT RECOMMENDATIONS

BUR-Smooth	MB Smooth/Granule	Single Ply
◆	◆	◆

GENERAL GUIDELINES

Component: Two-Component

Pressure: 4,500 psi

Tip Size: .045 - .055

Filters: Remove

Hose Type: High Pressure

WHIP: ¼" High Pressure

Product Temp: Ambient

**SPRAY EQUIPMENT
RECOMMENDATIONS**
CONTINUED

CLEAN UP

LIMITATIONS

PHYSICAL PROPERTIES

CODES & APPROVALS

AlphaGuard™ BIO Top Coat

- 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

Before the product cures, clean surfaces and equipment with Isopropyl Alcohol. Spray equipment can be flushed/cleaned using MEK or xylene.

- Not recommended for use over the following:

Roof Decks: Direct applications to 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 or coal tar gravel surfaced BUR systems, clay tile, expanded or extruded polystyrene insulation, fluoropolymer finished metal, shingles, silicone-based products, and tar-based products.

- Not for use under continuous immersion

PROPERTY	TEST METHOD	TYPICAL VALUE
Abrasion Resistance	ASTM C501	31 mg
Accelerated Weathering	ASTM G154	Pass
Breaking Strength	ASTM D751	385 lbf/in
Crack Spanning	ASTM C1305	Pass - 2 mm / 0.08 in
Dimensional Stability	ASTM D1204	0%
Dynamic Puncture Resistance	ASTM D5635	50 J
Elongation	ASTM D412	62%
Flexibility	ASTM D522	Pass @ -18°F
Fungi Resistance	ASTM G21	Pass
Indentation Hardness	ASTM D2240	82 Shore A
Low Temperature Flexibility	ASTM D5147	Pass at -30°F
Peak Load	ASTM D5147	414 lbf/in
Permeance	ASTM E96	0.011 perm-inch
Static Puncture Resistance	ASTM D5602	65 lbf
Tear Resistance	ASTM D5147	294 lbf/in
Tensile Strength	ASTM D412	644 psi
Water Absorption	ASTM D570	2 hours - 0.2%, 24 hours - 1.1%
Water Vapor Transmission	ASTM E96	1.2 perms
Volume Solids	ASTM D 2697	100%
Weight Solids	ASTM D 1644	100%
VOC		1 g/L

Data based on AlphaGuard BIO system

Florida Building Code



	Rapid Ratings*		
	Initial	Ratings*	Weathered
Solar Reflectance	<u>0.83</u>	<u>0.82</u>	Pending
Thermal Emittance	<u>0.9</u>	<u>0.9</u>	Pending
Rated Product ID	<u>0612-0025</u>		
Licensed Manufacturer ID	<u>0612</u>		
Classification	Production Line		

RAPID RATINGS

*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.

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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 preventative 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.



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