

AlphaGuard™ BIO Base Coat

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

FEATURES

Bio Content

Virtually Odorless

High Solids

Low VOC

Versatile

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

DESCRIPTION

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

BASIC USES

The AlphaGuard BIO System can be used to restore weathered smooth asphalt-based BUR, modified bitumen, and single-ply systems.

PACKAGING

Pails: 4 gal (15.1 L) Kits

Part A - 3.2 gals (12.1 L) packaged in a 5 gal (18.9 L) container

Part B - 0.8 gal (3.0 L) packaged in a 1 gal (3.7 L) container

Drums: 250 gal (946.3 L) Kits

Part A - 4 drums total - Each containing 50 gals (189.2 L) packaged in a 55 gal (208.1 L) container

Part B - 1 drum total - Containing 50 gals (189.2 L) packaged in a 55 gal (208.1 L) container

COLOR

Gray

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

Preparation: Surface must be clean, dry, in sound condition, and free of dirt, debris, and contaminants. Wet insulation 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.

APPLICATION

CONTINUED

AlphaGuard™ BIO Base Coat

Allow new concrete to cure for a minimum of 28 days and until moisture, RH, and compressive strength values reach an appropriate level. Concrete surfaces must be shot-blasted to a an ICRI 3-6 surface profile.

Metal surfaces and coated metal including fluoropolymer/PVDF coatings such as Kynar® (Registered trademark of Arkema Inc.) and Hylar® (Registered trademark of Solvay Solexis Inc.) must be ground to clean bright metal free of rust and primed prior to application.

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

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: Primers may be needed on specific substrates/surfaces prior to application. See AlphaGuard Installation Guide for a list of recommended primers.

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.

Reinforcements:

Fully-Reinforced Application: Fully embed AlphaGuard Glass Mat or Permafab into wet AlphaGuard BIO Base Coat using a brush or roller until reinforcement is fully saturated and is free of voids, wrinkles, air pockets, standing fibers, etc. In overlap areas ensure wet base coat is present on the top of the embedded sheet and overlap side laps a minimum of 3" (76 mm) and end laps a minimum of 6" (152 mm). Follow the same guidelines to embed the reinforcement in these areas. Do not allow foot traffic on the AlphaGuard BIO Base Coat during application or until liquid product has cured. Once cured, apply top coat at the specified rate fully covering the embedded reinforcement.

Partially-Reinforced (NR System): Install a three-course application on all drainage components, field laps/seams, flashing base and vertical laps/seams, penetrations, etc. following Tremco detail guidelines. Install the three-course application by applying AlphaGuard BIO Base Coat or approved sealant. Fully embedding Permafab into wet AlphaGuard BIO Base Coat or approved sealant using a brush or roller until reinforcement is fully saturated and is free of voids, wrinkles, air pockets, standing fibers, etc. Then fully encapsulate the fabric with an additional application of AlphaGuard BIO Base Coat or approved sealant.

Smooth BUR, Smooth MB, Single-Ply Substrates:

Fully-Reinforced: 3 gals / 100 sq. ft. (1.2 L/m²) (48 wet mils) minimum.

NR System: 2 gals / 100 sq. ft. (0.8 L/m²) (32 wet mils) minimum.

COVERAGE RATES

AlphaGuard™ BIO Base Coat

Granule Surfaced MB Substrates:

Fully-Reinforced: 4 gals / 100 sq. ft. (1.6 L/m²) (64 wet mils) minimum.

NR System: 3 gals / 100 sq. ft. (1.2 L/m²) (48 wet mils) minimum.

Three-Course Application: 30-65 In ft / gal

Note: Coverage rates are listed at minimum recommended rates. The application surface can affect the necessary coverage rate.

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

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.

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

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

- 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

COVERAGE RATES
CONTINUED

TEMPERATURE
RECOMMENDATIONS

CURE TIMES

ACCEPTABLE
ROOF SURFACES

SPRAY EQUIPMENT
RECOMMENDATIONS

CLEAN UP

LIMITATIONS

PHYSICAL PROPERTIES

AlphaGuard™ BIO Base Coat

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

CODES & APPROVALS

Florida Building Code



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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