

# AlphaGuard™ BIO Base Coat

## High Performance Two Component BIO-based Polyurethane Base Coat

### FEATURES

BIO Content  
Virtually odourless  
High solids  
Low VOC  
Versatile

### BENEFITS

- Rapidly renewable content makes the 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/litre
- Can be applied on many roofing substrates

### DESCRIPTION

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

15.5 litre kit  
Part A: Packaged in a 20 litre container  
Part B: Packaged in a 5 litre container

### COLOUR

Grey

### GRADE

Brush, Roller, Spray, Squeegee & Backroll

### POT LIFE

20 to 25 minutes at 25°C and 50% RH

**NOTE:** Temperature dependent – increasing temperature reduces extended 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 source and direct sunlight. Storage temperatures should range from 15°C to 21°C and must not drop below 0°C or exceed 43°C.

On jobsite, materials should remain on the pallet until use and be stored in a shaded, ventilated area. Materials should be covered with a light-coloured 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:** Surfaces 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 the application of liquid-applied products.

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 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 7°C when mixing.

## APPLICATION (CONTINUED)

**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 the 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 the 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.

**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 Pro-Struct 599 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 fibres, etc. In overlap areas, ensure wet base coat is present on the top of the embedded sheet and overlap side laps a minimum of 76mm and end laps a minimum of 152mm. 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 topcoat 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 Pro-Struct 599 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 fibres, etc. Then, fully encapsulate the fabric with an additional application of AlphaGuard BIO Base Coat or approved sealant.

## COVERAGE RATES

### Smooth BUR, Smooth MB, Single-ply Substrates:

**Fully-Reinforced:** 0.83m<sup>2</sup>/litre (1200µm D.F.T.)

**NR System:** 1.23m<sup>2</sup>/litre (815µm D.F.T.)

### Concrete & Previously Applied Heat-fused Membrane:

**Primer:** Depends on substrate – refer to appropriate product data sheet & spread rates

**Fully-Reinforced:** 0.83m<sup>2</sup>/litre (1200µm D.F.T.)

**NR System:** 1.23m<sup>2</sup>/litre (815µm D.F.T.)

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

**Minimum Ambient:** 7.2°C

**Maximum Ambient:** 43.3°C

- Minimum temperatures must be rising following application.
- Do not apply when dew point is within 3°C of ambient temperatures.
- Do not apply when precipitation, fog or dew is imminent prior to cure of the product.

## TEMPERATURE RECOMMENDATIONS



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## CURE TIMES

**Skin Time:** 3 to 4 hours at 25°C and 50% RH

**Recoat Time:** 6 to 7 hours at 25°C and 50% RH

**NOTE:** Cure times can be affected by a number of weather and job site conditions including, but not limited to, exposure to sunlight and wind, humidity, precipitation and temperature.

## ACCEPTABLE ROOF SURFACES

BUR Smooth  
MB Smooth / Granule  
Single Ply

## SPRAY EQUIPMENT RECOMMENDATIONS

**Equipment** Airless  
**Pressure** 6500 psi  
**Tip Size** .045 to .055  
**Filters** Remove  
**Hose Type** High pressure  
**Whip** ¼" high pressure  
**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.

## CLEAN UP

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

## LIMITATIONS

- Not recommended for use over the following:  
**Roof Decks:** Direct application 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.

## PHYSICAL PROPERTIES

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 – 2mm / 0.88in
Dimensional Stability	ASTM D1204	0%
Dynamic Puncture Resistance	ASTM D5635	50 J
Elongation	ASTM D412	62%
Flexibility	ASTM D522	Pass at -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 Vapour Transmission	ASTM E96	1.2 perms
Volume Solids	ASTM D2697	100%
Weight Solids	ASTM D1644	100%
VOC	-	1 g/l

## 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.



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## 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 analyse conditions and needs to develop recommendations for special applications.



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# AlphaGuard™ BIO Top Coat

## High Performance Two Component BIO-based Polyurethane Top Coat

### FEATURES

BIO Content  
Virtually odourless  
High solids  
Low VOC  
Versatile  
Highly reflective (white)

### BENEFITS

- Rapidly renewable content makes the 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/litre
- Can be applied on many roofing substrates
- Lowers rooftop temperatures resulting in less stress and potential energy savings

### DESCRIPTION

AlphaGuard BIO Top 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

11.7 litre kit  
Part A: Packaged in a 20 litre container  
Part B: Packaged in a 5 litre container

### COLOUR

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

### GRADE

Brush, Roller, Spray, Squeegee & Backroll

### POT LIFE

20 to 25 minutes at 25°C and 50% RH

**NOTE:** Temperature dependent – increasing temperature reduces extended 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 source and direct sunlight. Storage temperatures should range from 15°C to 21°C and must not drop below 0°C or exceed 43°C.

On jobsite, materials should remain on the pallet until use and be stored in a shaded, ventilated area. Materials should be covered with a light-coloured 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

White to be used on all applications. Alternate colours 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.

**Mixing:** Product material temperatures must be above 7°C when mixing.

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

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.

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

## APPLICATION (CONTINUED)

**Priming:** AlphaGuard BIO Base and Top Coat should be topcoated within 72 hours of application. If cured base or top coat is exposed for longer than 72 hours, an application of Geogard Primer 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 0.4 to 0.6 litres/m<sup>2</sup> (16 to 24 wet mils) and immediately broadcast and backroll an approved non-skid media. Colour striping can be installed in 3 to 4" wide areas along the perimeter of the walkway area at a coverage rate of 0.4 to 0.6 litres/m<sup>2</sup> (16 to 24 wet mils) to provide identification of the area on the roof.

## COVERAGE RATES

**Fully-Reinforced:** 0.83m<sup>2</sup>/litre (1200µm D.F.T.)

**NR System:** 1.23m<sup>2</sup>/litre (815µm D.F.T.)

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

## TEMPERATURE RECOMMENDATIONS

**Minimum Ambient:** 7.2°C

**Maximum Ambient:** 43.3°C

- Minimum temperatures must be rising following application.
- Do not apply when dew point is within 3°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 to 4 hours at 25°C and 50% RH

**Recoat Time:** 6 to 7 hours at 25°C and 50% RH

**NOTE:** Cure times can be affected by a number of weather and job site conditions including, but not limited to, exposure to sunlight and wind, humidity, precipitation and temperature.

## ACCEPTABLE ROOF SURFACES

BUR Smooth  
MB Smooth / Granule  
Single Ply

## SPRAY EQUIPMENT RECOMMENDATIONS

<b>Equipment</b>	<b>Airless</b>
<b>Pressure</b>	6500 psi
<b>Tip Size</b>	.045 to .055
<b>Filters</b>	Remove
<b>Hose Type</b>	High pressure
<b>Whip</b>	¼" high pressure
<b>Product Temperature</b>	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.

## CLEAN UP

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

## LIMITATIONS

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**LIMITATIONS**  
(CONTINUED)

**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.

**PHYSICAL PROPERTIES**

Property	Test Method	Typical Value
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