

# AlphaGuard™ PUMA Base Coat

*High performance, two-component,  
modified polyurethane methacrylate base resin*

## FEATURES

PUMA Technology

Low Temperature Applications

Catalyzed Cure

High Solids

Plant Root Resistance

VOC Compliant

## BENEFITS

- Unique technology typically provides higher elongation and crack bridging properties than comparable MMA/PMMA technology
- Product can be applied in freezing temperatures.
- Results in faster cure than one-component products
- 100% Solids
- Highly durable system prevents damage caused by plant roots in vegetative roofing installations
- 0 g/L; Can be used anywhere (No VOC restrictions)

## DESCRIPTION

AlphaGuard PUMA Base Coat is a high performance, two-component, modified polyurethane methacrylate waterproofing resin

## BASIC USES

The AlphaGuard PUMA system is ideal for restoration, repair and waterproofing of a variety of roofing systems and can be used as the primary roofing system in IRMA and vegetative roof assemblies. AlphaGuard PUMA can also be installed as the roofing system in direct to structural concrete applications. AlphaGuard PUMA can also be used as a liquid flashing membrane for approved new roofing systems.

## PACKAGING

Available in 6 gallon (22.71 L) and 2 gallon (7.57 L) containers.

## COLOR

Gray

## GRADE

Brush / Roller / Squeegee

## POT LIFE

10 - 15 minutes. *\*Pot life dependent on ambient, substrate, and product temperature and the amount of AlphaGuard FC or PUMA Catalyst used.*

## STORAGE

12 months shelf life in unopened containers when properly stored.

## DO NOT FREEZE

Recommended storage 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. Rust must be abraded until it no longer exhibits flaking or chalking. 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.

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.

# AlphaGuard™ PUMA Base Coat

## APPLICATION CONTINUED

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:** Use a heavy duty power drill with Jiffy Mixer attachment. Cord-less drills are not recommended and may not properly mix the materials.

AlphaGuard PUMA Base Coat must be mixed to achieve a uniform distribution and appearance of the product. Once properly mixed, AlphaGuard PUMA Base Coat can be poured off in smaller quantities into a second container. Add the appropriate amount of AlphaGuard FC or PUMA Catalyst to the selected amount of base coat and mix thoroughly for a minimum of 2 minutes until powder catalyst is completely dissolved. Catalyze only the amount of base coat intended to be used within the expected pot life. The amount of AlphaGuard FC or PUMA Catalyst required is based on the amount of base coat used and the ambient temperature (Refer to the mixing chart for proper mixing ratios.).

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.

## MIXING CHART

| AG PUMA<br>BASE COAT<br>AMOUNT          | ALPHAGUARD FC CATALYST AMOUNTS BY TEMPERATURE |      |     |           |                                  |      |     |           |                                 |      |       |            |                                |      |       |           |                 |     |   |           |
|-----------------------------------------|-----------------------------------------------|------|-----|-----------|----------------------------------|------|-----|-----------|---------------------------------|------|-------|------------|--------------------------------|------|-------|-----------|-----------------|-----|---|-----------|
|                                         | 70-95°F (21-35°C)<br>1% Catalyst              |      |     |           | 60-70°F (15-21°C)<br>2% Catalyst |      |     |           | 40-60°F (5-15°C)<br>4% Catalyst |      |       |            | 32-40°F (0-5°C)<br>6% Catalyst |      |       |           | < 32°F (< 0°C)  |     |   |           |
|                                         | oz                                            | lbs  | g   | 100g bags | oz                               | lbs  | g   | 100g bags | oz                              | lbs  | g     | 100g bags  | oz                             | lbs  | g     | 100g bags | oz              | lbs | g | 100g bags |
|                                         |                                               |      |     |           |                                  |      |     |           |                                 |      |       |            |                                |      |       |           |                 |     |   |           |
| 1 gal (11.28 lbs)<br>3.78 L (5.11 kg)   | 2                                             | 0.11 | 51  | 1/2 bag   | 4                                | 0.23 | 102 | 1 bag     | 7                               | 0.45 | 204   | 2 bags     | 11                             | 0.68 | 307   | 3 bags    | Contact Tremco  |     |   |           |
| 3 gal (33.84 lbs)<br>11.34 L (15.35 kg) | 5                                             | 0.34 | 154 | 1.5 bags  | 11                               | 0.68 | 307 | 3 bags    | 22                              | 1.35 | 614   | 6.25 bags  | 32                             | 2.03 | 921   | 9.25 bags | Product Group   |     |   |           |
| 6 gal (67.68 lbs)<br>22.68 L (300 kg)   | 11                                            | 0.68 | 307 | 3 bags    | 22                               | 1.35 | 614 | 6.25 bags | 43                              | 2.71 | 1,228 | 12.25 bags | 65                             | 4.06 | 1,842 | 18.5 bags | for Information |     |   |           |

\* AlphaGuard FC Catalyst amounts listed on this chart are minimum required quantities.

| AG PUMA<br>BASE COAT<br>AMOUNT          | ALPHAGUARD PUMA CATALYST AMOUNTS BY TEMPERATURE |      |     |                                  |      |       |                                 |      |       |                                 |      |       |                                                             |     |   |
|-----------------------------------------|-------------------------------------------------|------|-----|----------------------------------|------|-------|---------------------------------|------|-------|---------------------------------|------|-------|-------------------------------------------------------------|-----|---|
|                                         | 70-95°F (21-35°C)<br>2% Catalyst                |      |     | 60-70°F (15-21°C)<br>4% Catalyst |      |       | 40-60°F (5-15°C)<br>8% Catalyst |      |       | 32-40°F (0-5°C)<br>12% Catalyst |      |       | < 32°F (< 0°C)                                              |     |   |
|                                         | oz                                              | lbs  | g   | oz                               | lbs  | g     | oz                              | lbs  | g     | oz                              | lbs  | g     | oz                                                          | lbs | g |
| ½ gal (5.64 lbs)<br>1.89 L (2.55 kg)    | 2                                               | 0.11 | 51  | 4                                | 0.22 | 102   | 7                               | 0.45 | 204   | 11                              | 0.67 | 306   | Contact Tremco<br><br>Product Group<br><br>for information. |     |   |
| 1 gal (11.28 lbs)<br>3.78 L (5.11 kg)   | 4                                               | 0.23 | 102 | 7                                | 0.45 | 204   | 14                              | 0.90 | 409   | 22                              | 1.35 | 613   |                                                             |     |   |
| 3 gal (33.84 lbs)<br>11.34 L (15.35 kg) | 11                                              | 0.68 | 307 | 22                               | 1.35 | 614   | 43                              | 2.71 | 1,228 | 65                              | 4.06 | 1,842 |                                                             |     |   |
| 6 gal (67.68 lbs)<br>22.68 L (300 kg)   | 22                                              | 1.35 | 614 | 43                               | 2.71 | 1,228 | 87                              | 5.41 | 2,456 | 130                             | 8.12 | 3,684 |                                                             |     |   |
|                                         |                                                 |      |     |                                  |      |       |                                 |      |       |                                 |      |       |                                                             |     |   |

\* AlphaGuard PUMA Catalyst amounts listed on this chart are minimum required quantities.

| Smooth BUR | Concrete | Modified Bitumen | Single Ply |
|------------|----------|------------------|------------|
| ◆          | ◆        | ◆                | ◆ *        |

\* Field adhesion test and Product/Technical Management approval required

## ACCEPTABLE ROOF SURFACES/SUBSTRATES

## COVERAGE RATES

## TEMPERATURE RECOMMENDATIONS

## CURE TIMES

**Smooth BUR/MB/Single Ply:** 5 gals / 100 sq. ft. (80 mils) in two coats with fabric reinforcement

**Structural Concrete (Field):** 5 gals / 100 sq. ft. (80 mils)

**Min Ambient:** -20°F (-28°C)

**Max Ambient:** 95°F (35°C)

- Minimum temperatures must be rising following application
- Do not apply when dew point is within 5°F (2.7°C) of ambient temperatures
- Do not apply when precipitation, fog or dew is imminent prior to cure of the product

**Skin Time:** 30-45 min. @ 77°F (25°C) / 50% RH

**Recoat Time:** 1 hour @ 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.*

CLEAN UP

LIMITATIONS

PHYSICAL PROPERTIES

# AlphaGuard™ PUMA Base Coat

Clean tools immediately after use with AlphaGuard PUMA Cleaner.

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 or coal tar gravel surfaced BUR systems, clay tile, corrugated or standing seam metal roof systems, expanded or extruded polystyrene insulation, fluoropolymer finished metal, shingles, silicone-based products, and tar-based products.

- Not for use under continuous immersion.
- Do not thin

| PHYSICAL PROPERTY                                      | TEST METHOD | TYPICAL VALUE              |
|--------------------------------------------------------|-------------|----------------------------|
| Peak Load @ 73°F, lbf/in.                              | ASTM D5147  | 73 (NR) *BC ONLY*          |
| Elongation, % @73°F                                    | ASTM D5147  | 325% (NR)<br>*BC ONLY*     |
| Tensile Strength                                       | ASTM D412   | 1292 psi (NR)<br>*BC ONLY* |
| Peak Load @ 73°F, lbf/in.                              | ASTM D5147  | 105 (MD)<br>110 (XMD)      |
| Elongation, % @73°F                                    | ASTM D5147  | 31%<br>43%                 |
| Peak Load @ 73°F, post heat conditioning, lbf/in.      | ASTM D5147  | 146 (MD)<br>131 (XMD)      |
| Elongation %, @ 73°F, post heat conditioning           | ASTM D5147  | 36% (MD)<br>35% (XMD)      |
| Peak Load @ 73°F, post-accelerated weathering, lbf/in. | ASTM D5147  | 145 (MD)<br>152 (XMD)      |
| Elongation %, @ 73°F, post-accelerated weathering      | ASTM D5147  | 33% (MD)<br>42% (XMD)      |
| Tear Resistance, lbf.                                  | ASTM D5147  | 216 (MD)<br>208 (XMD)      |
| Hardness                                               | ASTM D2240  | 88 Shore A                 |
| Dimensional Stability, %                               | ASTM D5147  | 0.00%                      |
| Water Vapor Transmission, perms                        | ASTM E96(A) | 0.3 perms                  |
| Water Absorbtion, % (@212°F/100°C)                     | ASTM D570   | 0.01%                      |
| Static Puncture Resistance, lbf                        | ASTM D5602  | Pass 56                    |
| Low Temperature Deflection, °F                         | ASTM D7264  | Pass -30 (MD & XMD)        |
| Self-ignition, °F                                      | ASTM D1929  | 740                        |
| Rate of Burning, in/min                                | ASTM D635   | 0.9                        |
| VOC                                                    | ASTM D3960  | 0 g/L                      |

## CODES & APPROVALS

Florida Building Code



## MAINTENANCE

## PRECAUTIONS

## TECHNICAL SUPPORT

# AlphaGuard™ PUMA Base Coat

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.

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

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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