

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.

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

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

TEMPERATURE RECOMMENDATIONS

CURE TIMES

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.

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CLEAN UP

Clean tools immediately after use with AlphaGuard PUMA Cleaner.

LIMITATIONS

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 PROPERTIES

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) *BC ONLY*
Tensile Strength	ASTM D412	1292 psi (NR) *BC ONLY*
Peak Load @ 73°F, lbf/in.	ASTM D5147	105 (MD) 110 (XMD)
Elongation, % @73°F	ASTM D5147	31% 43%
Peak Load @ 73°F, post heat conditioning, lbf/in.	ASTM D5147	146 (MD) 131 (XMD)
Elongation %, @ 73°F, post heat conditioning	ASTM D5147	36% (MD) 35% (XMD)
Peak Load @ 73°F, post-accelerated weathering, lbf/in.	ASTM D5147	145 (MD) 152 (XMD)
Elongation %, @ 73°F, post-accelerated weathering	ASTM D5147	33% (MD) 42% (XMD)
Tear Resistance, lbf.	ASTM D5147	216 (MD) 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



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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.



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