

TECHNICAL DATA SHEET



Waterproofing System – Planter Application

PRODUCT DESCRIPTION

TREMproof[®] PUMA Planters System is a cold-applied, waterproofing system that is based on polyurethane-methacrylate (PUMA) technology. PUMA waterproofing systems offer superior elongation over traditional MMA/PMMA technology systems. TREMproof PUMA Planters System is composed of a primer (Tremco PUMA Primer or TREMprime VB Plus Primer) and a base coat (Tremco PUMA BC or BC LM) Tremco PUMA TC can be used if UV protection is required. All system components, except TREMprime VB Plus, are cured using Tremco PUMA Initiator+.

Tremco PUMA Primer is a polymethyl-methacrylate (PMMA), two-component primer for porous and non-porous substrates.

TREMprime VB Plus Primer is a two component, modified epoxy primer designed to seal concrete and reduce moisture vapor transmission on concrete slabs with elevated levels of moisture.

Tremco PUMA BC is a polyurethane-methacrylate (PUMA) base coat. Tremco PUMA BC bonds firmly to Tremco PUMA Primer. It retains its integrity even if substrate movement causes hair-line cracks of up to 1/16" (1.5 mm). If cut or damaged, Tremco PUMA BC will prevent water migration between itself and the substrate.

Tremco PUMA BC LM is a low-modulus version of Tremco PUMA BC waterproofing membrane that is used when dynamic movement and extreme service temperature ranges are anticipated.

Tremco PUMA TC is a polymethyl-methacrylate (PMMA) top coat. Interlaminary adhesion to Tremco PUMA BC is exceedingly strong. The top coat affords excellent abrasion resistance, UV stability and chemical resistance to complete the TREMproof PUMA planters system.

Tremco PUMA Initiator+ is a reactive catalyst in the form of a white powder used to cure all PUMA/PMMA resins.

BASIC USES

TREMproof PUMA Planters System is a cold-applied system designed for waterproofing concrete slabs, protecting occupied areas underneath from water damage and inhibiting root penetration. This waterproofing system is ideal for use in planters.

FEATURES & BENEFITS

- PUMA technology delivers extreme durability while maintaining its crack-bridging characteristics, eliminating the need for reinforcing fabric.
- Inhibits root penetration when installed at or greater than minimum recommended thickness.
- Rapid set-up times allow for quick overall installation, as well as the ability to open up to foot traffic one hour later.
- Can be applied at temperatures as low as 14 °F (-10 °C), which allows for continuation of projects in the colder months.
- Unique chemistry allows for easy repair.
- Zero Volatile Organic Compounds (VOCs).
- Compatible with Tremco sealants, coatings and expansion joints, which is essential for tie-ins, detailing and penetrations.

AVAILABILITY

Immediately available from your local Tremco Sales Representative.

PACKAGING

Tremco PUMA Primer: 2-gal and 6-gal pails TREMprime VB Plus Primer: Part A: 2.4-gal pail Part B: 1-gal pail Tremco PUMA BC (all grades): 6-gal pails Tremco PUMA TC: 6-gal pails Tremco PUMA Initiator+: 10-lb in 3-gal pails, 25-lb in 6-gal pails, 25 75-g pouches in a box Tremco PUMA Cleaner: 6-gal pails

COLORS

Tremco PUMA TC is available in Gray, Slate Gray, Charcoal, White, Beige, Tintable and *Decorative. Universal Color Paks are available for use with Tremco PUMA TC Tintable.

*For use with decorative aggregate.

INSTALLATION

Tremco PUMA components are designed for use with the Vulkem EWS and TREMproof PUMA systems. Please refer to the TREMproof PUMA Application Instructions for complete application details. The techniques involved may require modification to adjust to job-site specific conditions. Consult your Tremco Sales Representative or Tremco Technical Services for site conditions and requirements.

LIMITATIONS

- Use with adequate ventilation.
- Not for use over expanded polystyrene, extruded polystyrene, poured in place gypsum, lightweight insulating concrete, cementitious wood fiber decks and coal tar pitch.
- Do not apply in falling precipitation or when precipitation is imminent.
- All surfaces must be sound, clean, free of standing water and free from contamination.
- Any questions regarding drying times, coverage rates and unique application techniques should be directed to Tremco Technical Services or your local Tremco Sales Representative.
- Do not apply over contaminated surfaces.
- Do not thin.
- Substrate must be at least 5 °F (3 °C) above the measured dew point temperatures to avoid dew point conditions.
- Do not store in direct sunlight for prolonged periods.
- Unvented metal pan decks, slab-on-grade and hollow core plank decks require additional qualification prior to application. Please contact Tremco technical services for more information.

WARRANTY

A repair or replacement warranty is available on all Tremco products. Visit https://www.tremcosealants.com/warranties/ for details.

| TYPICAL PHYSICAL PROPERTIES | | | |
|-----------------------------------|--------------------------------|------------------------------|-------------------|
| PROPERTY | TEST METHOD | TREMCO PUMA BC | TREMCO PUMA TC |
| VOC Content | Method 310 | 0 g/L | 0 g/L |
| % Solids (by weight) | ASTM D1353 | 100% | 100% |
| Drying Time @ 75 °F, 50% RH | ASTM D1640 | 80 mil film, 1 hr | 17 mil film, 1 hr |
| Weathering | ASTM D822 Weatherometer 350 hr | N/A | No effect |
| Elongation | ASTM D638 | 407-420% | 130% |
| Elongation | ASTM D5147 | Min 30% | Min 30% |
| Tensile Strength | ASTM D638 @ 75 °F | 991 - 1680 psi | 986 psi |
| Tearing Resistance | ASTM D4073 | 91 lbf | 203 lbf |
| Hardness (Shore D) | ASTM D2240 | 18 - 35 | 55 |
| Hardness (Shore A) | ASTM D2240 | 65-87 | 100 |
| Abrasion Resistance (1000 cycles) | ATSM D4060 | N/A | 51 mg |
| Low-Temperature Crack Bridging | ASTM C1305 | Passes | N/A |
| Taber Abrasion | ASTM C501 | Passes | N/A |
| Peak Load @ 73 °F, avg. | ASTM D5147 | >70 lbf/in | 238 lb/in |
| Puncture Resistance | ASTM D5602 | > 56 lbs | > 56 lbs |
| Water Absorption | ASTM D570 | < 0.1% | < 0.1% |
| Water Vapor Transmission | ASTM E96 | 0.03 perms | 0.03 perms |
| Adhesion-in-Peel | ASTM C794 | Concrete failure with primer | N/A |
| Self-Ignition Temperature | ASTM D1929 | 800 °F | 850 °F |
| | | 427 °C | 454 °C |
| Smoke Density | ASTM D2843 | 4.1% | 2.1% |
| Rate of Burn | ASTM D635 | 1.2 in/min | 0.2 in/min |

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

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