

## TREMCO® PUMA TECHNOLOGY SYSTEMS

Vulkem® EWS Traffic Coatings and TREMproof® Below-Grade Waterproofing Membranes with Tremco Polyurethane-Methacrylate (PUMA) Technology





## Tremco® PUMA Technology Overview

Tremco's Vulkem<sup>®</sup> EWS traffic coating systems and select TREMproof<sup>®</sup> PUMA below-grade waterproofing systems feature PUMA (polyurethane-methacrylate) technology, which allows for enhanced performance and durability compared to standard MMA/PMMA technology systems.

These systems feature superior durability and abrasion resistance, exceptional crack-bridging, tenacious adhesion and fast cure — opening to traffic in as little as one hour after installation. Tremco PUMA technology systems can be applied in temperatures as low as  $14 \, ^{\circ}\text{F}$  (- $10 \, ^{\circ}\text{C}$ ).

Learn more at tremcosealants.com/puma.

### Peace-of-Mind Guarantee

Our comprehensive warranties provide confidence that your project's systems are backed by a company with more than 85 years' experience, success and proven performance in the industry. Tremco warranties are available to include seamless connections to adjacent building envelope components to create a single-source, warranted, tested system.

### The Tremco CPG Difference

Speed construction or restoration. Simplify installation. Extend the construction season. A Tremco Construction Product Group (CPG) single-source building envelope means more for everyone – more satisfied contractors, more comfortable occupants or tenants, and more efficient structures and cost-effective operation for owners.



#### **Faster Construction Time**

Lightweight, fast-curing and prefabricated products mean less occupant disruption, faster return to service, less revenue lost — and no call-backs.



#### **Any Look You Want**

A wide range of colors and finishes like brick, granite, metals, stucco and more provide maximum flexibility in your roof and façade aesthetic.



#### **Stronger and More Resilient**

Our systems are designed for maximum durability, many with service lives far surpassing that of competing systems.



#### **Leak-Free Performance**

Products provide maximum protection from air, moisture and thermal infiltration — and are performance tested in our one-of-a-kind Sustainable Building Solutions Test Facility.



#### Cost Effective for the Long Term

A broad range of products can fit any project budget — but our energy efficiency and maintenance solutions can also help you ensure cost-effective ownership and operation for the long term.



#### **Better Insulated**

Industry-leading brands provide solutions for more efficient building construction and operation, and exceed strict energy codes for insulation.



#### **One Point of Contact**

Our products and systems are backed by industryleading warranties — all from a single point of contact. We can also help with everything from asset management to diagnostics to installer training.



#### Leading Edge Sustainability

Our building solutions help you meet green building standards like Net Zero, Living Building Challenge, Passive House and more.

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## **PUMA SYSTEM COMPONENTS**

- **Tremco PUMA Primer -** A methyl-methacrylate (MMA), two-component primer for porous and non-porous substrates.
- Tremco PUMA Initiator+ A reactive catalyst in the form of a white powder used to cure all resins of Vulkem® EWS and TREMproof® PUMA.
- Tremco PUMA BC A polyurethane-methacrylate (PUMA) base coat that bonds firmly to Tremco PUMA Primer and retains its integrity regardless of substrate movement up to 1/16". Available in self-leveling, roller, trowel and low-modulus grade.
- Tremco PUMA Flashing A polyurethane-methacrylate (PUMA) base coat that bonds firmly to Tremco PUMA Primer, and is compatible with Tremco's TREMproof® 6100.
- **Tremco PUMA WC** A polyurethane-methacrylate (PUMA) wear coat, loaded with aggregate to give the system excellent impact, abrasion and chemical resistance.
- Tremco PUMA Filler Powder A non-reactive, white, filler powder used to thicken Tremco PUMA WC
- 16 to 20 mesh silica sand, color quartz, aluminum oxide (bauxite) Used in conjunction with PUMA Primer, PUMA WC and PUMA TC. (Supplied by others.)
- Tremco PUMA TC A methyl-methacrylate (MMA) top coat that offers excellent abrasion resistance, UV stability and chemical resistance system. (Available in variety of colors. See page 5 for details.)

Components of Vulkem® EWS traffic coating systems, and TREMproof®PUMA below-grade waterproofing systems.



# **PUMA TOP COAT (TC) COLOR CARD**

#### STANDARD COLORS



- 1 For use with decorative aggregate.
- 2 For use with Tremco Universal ColorPaks.

All colors shown are approximate and may not reflect sheen or shade precisely, as varying amounts of aggregate will alter light-reflecting properties. Tremco always recommends a test patch to gain final color approval. Different lighting conditions can influence color appearance: for truer color please view in daylight. Some colors may require a minimum quantity. Custom colors are available upon request. Contact Tremco Customer Service for more information.



# **VULKEM® EWS TRAFFIC COATINGS**

Rapid turnaround, high-performance coatings with tenacious adhesion and extreme abrasion resistance

## **VEHICULAR SYSTEM**

Parking Structures, High-Wear Turn and Drive Lanes, Helical Turns, Ramps and Ticket Spitters

The ideal system for parking structures, high-wear turn and drive lanes, helical turns, ramps and ticket spitters. Protects from the damaging effects of chloride, deicing salts, chemicals, gasoline, oils and anti- freeze.

Pro	duct	Coverage Rate	Wet Mils	Comments
1	Tremco PUMA Primer	90 ft²/gal	17	Lightly broadcast silica sand.
2	Tremco PUMA BC	20 ft²/gal	80	Allow 45 minutes to cure before proceeding.
3	Tremco PUMA WC with PUMA filler powder	25 ft²/gal	65	Broadcast silica sand to refusal. Allow 45 min to cure before proceeding.
4	Tremco PUMA TC	53-90 ft²/gal	17-30	Allow 60 minutes to cure before opening to traffic.





## **VULKEM® EWS TRAFFIC COATINGS**

Rapid turnaround, high-performance coatings with tenacious adhesion and extreme abrasion resistance

## HYBRID SYSTEM: URETHANE

#### **Vulkem Urethanes for Driving Lanes and Parking Stalls**

Our hybrid system incorporates Vulkem EWS for extreme-wear areas such as helical turns, ramps and ticket spitters — with Vulkem Polyurethane Vehicular Systems for drive lanes and parking stalls.

Pro	duct	Coverage Rate	Wet Mils	Comments
1	Primer (condition dependent)	400 to 600 ft²/gal	N/A	See local Tremco representative
2	Vulkem Base Coat	64 ft²/gal	25	See mixing instructions
3	Vulkem Intermediate Coat	105 ft²/gal	15	16 - 30 mesh silica sand
4	Vulkem Top Coat	133 to 160 ft²/gal	10 to 20	Vehicular traffic 72 hours after cure

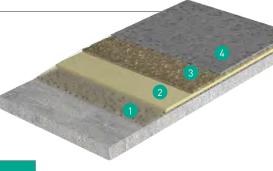


## **HYBRID SYSTEM: EWS**

#### For Helical Turns, Ramps and Ticket Spitters

Our hybrid system incorporates Vulkem EWS for extreme-wear areas such as helical turns, ramps and ticket spitters — with Vulkem Polyurethane Vehicular Systems for drive lanes and parking stalls.

Pro	duct	Coverage Rate	Wet Mils	Comments
1	Tremco PUMA Primer	90 ft²/gal	17	Lightly broadcast silica sand.
2	Tremco PUMA BC	20 ft²/gal	80	Allow 45 min to cure before proceeding.
3	Tremco PUMA WC with PUMA filler powder	25 ft²/gal	65	Broadcast silica sand to refusal. Allow 45 min to cure before proceeding.
4	Tremco PUMA TC	53-90 ft²/gal	17 to 30	Allow 60 min to cure before opening to traffic.





# **VULKEM® EWS TRAFFIC COATINGS**

Rapid turnaround, high-performance coatings with tenacious adhesion and extreme abrasion resistance

## PEDESTRIAN SYSTEM

#### Stadiums, Balconies and Pool Decks

A cold-applied system ideal for stadiums, balconies and pool decks — protecting concrete below from the damaging effects of chloride, deicing salts, chemicals, gasoline, oils, anti-freeze and more.

Pro	duct	Coverage Rate	Wet Mils	Comments
1	Tremco PUMA Primer	90 ft²/gal	17	Lightly broadcast silica sand.
2	Tremco PUMA BC	26 ft²/gal	60	Allow 45 minutes to cure before proceeding.
3	Tremco PUMA TC	80-90 ft²/gal	17-20	Broadcast silica sand to refusal.
4	Tremco PUMA TC	53-64 ft²/gal	25-30	Allow 45 minutes to cure before opening to traffic.





#### Aesthetically Appealing Solution with Extreme Durability

Ideal for pedestrian walkways, balconies, deck and plaza common areas — can match any aesthetic with a variety of UV-stable aggregate or chips.

Pro	duct	Coverage Rate	Wet Mils	Comments
1	Tremco PUMA Primer	90 ft²/gal	17	Lightly broadcast silica sand.
2	Tremco PUMA BC	20 ft²/gal	80	Allow 45 min to cure before proceeding.
3	Tremco PUMA WC	80 to 90 ft²/gal	17 to 20	Broadcast UV-stable color quartz to refusal. Allow 45 minutes to cure before proceeding.
4	Tremco PUMA WC	60 to 80 ft²/gal	20 to 25	Broadcast UV-stable color quartz to refusal. Allow 45 minutes to cure before proceeding.
5	Tremco PUMA TC	107 ft²/gal	15	Allow 45 minutes to cure before opening to traffic.
6	Tremco PUMA TC	107 ft²/gal	15	Allow 45 minutes to cure before opening to traffic.



## **VULKEM®** EWS HIGH-PERFORMANCE COATINGS

Maximum-performance coatings with tenacious adhesion and extreme abrasion resistance

## **HEAVY DUTY SYSTEM**

#### Maximum Protection for Snow Plows, Dumpster Areas and Loading Docks

Tremco's heavy duty system is ideal for loading docks and areas requiring snow plow resistance. Maximum protection from the damaging effects of chloride, deicing salts, chemicals, gasoline, oils and anti- freeze.

Pro	duct	Coverage Rate	Wet Mils	Comments
1	Tremco PUMA Primer	90 ft²/gal	17	Lightly broadcast silica sand.
2	Tremco PUMA BC	20 ft²/gal	80	Allow 45 minutes to cure before proceeding.
3	Tremco PUMA WC with PUMA filler powder	16 ft²/gal	100	Broadcast aluminum oxide (bauxite) to refusal. Allow 45 min to cure before proceeding.
4	Tremco PUMA TC	53-90 ft²/gal	17-30	Allow 60 minutes to cure before opening to traffic.





# **VULKEM®** EWS SPECIALTY COATINGS

Long-term waterproofing solutions for water features and bonded overburden applications

## **POOL DECK SYSTEM**

#### Pool Decks and Splash Pads

Vulkem® EWS with PUMA Technology for pool decks is designed to have tenacious adhesion and extreme abrasion resistance. It can be walked on in one hour, which will minimize operation disruption.

Pro	duct	Coverage Rate	Wet Mils	Comments
1	Tremco PUMA Primer	90 ft²/gal	17	Lightly broadcast silica sand.
2	Tremco PUMA BC	26 ft²/gal	60	Allow 45 min to cure before proceeding.
3	Tremco PUMA TC	80-90 ft²/gal	17-20	Broadcast silica sand or color quartz to refusal.
4	Tremco PUMA TC	53-64 ft²/gal	25-30	Allow 60 min to cure before opening to traffic.

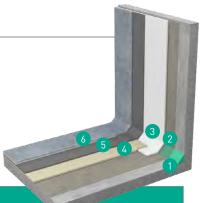


### WATER FEATURE SYSTEM

#### **Fountains and Decorative Water Features**

Vulkem® EWS with PUMA Technology for water features is designed to have tenacious adhesion and extreme abrasion resistance. It can be walked on in one hour, which will minimize operation disruption.

Prod	luct	Coverage Rate	Wet Mils	Comments
1	Dymonic 100 or Tremco PUMA BC T	N/A	N/A	N/A
2	Tremco PUMA Primer	90 ft²/gal	17	Lightly broadcast silica sand.
3	Tremco PUMA BC R	20 ft²/gal	80	Allow 45 min to cure before proceeding.
4	Tremco PUMA BC/ BC LM	20 ft²/gal	80	Allow 45 min to cure before proceeding.
5	Tremco PUMA TC	80 ft²/gal	20	Allow 60 min to cure before proceeding. Optional: Broadcast silica sand into the wet TC to refusal if overburden will be applied.
6	Overburden (Optional)	N/A	N/A	Installed over Tremco PUMA TC sanded to refusal. See option in step 5.



# VULKEM® EWS SPECIALTY COATINGS

Long-term waterproofing solutions for water features and bonded overburden applications

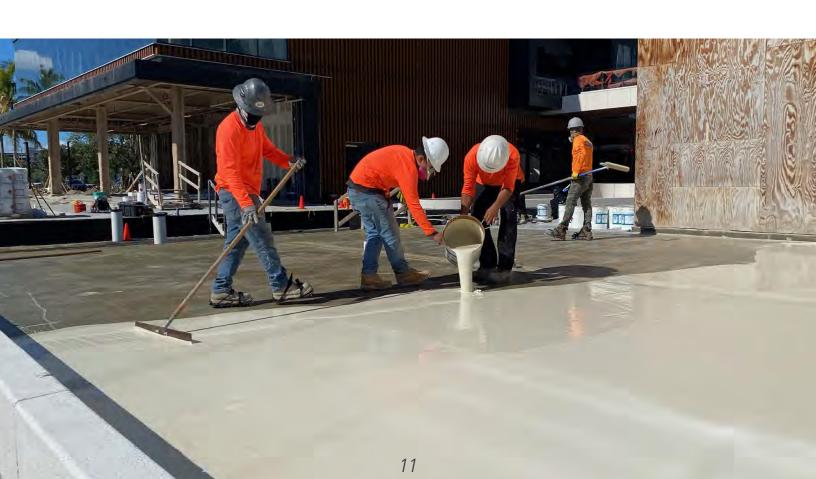
## **UNDER TILE SYSTEM**

#### Tile, Pavers and Bonded Overburden

A cold-applied, under tile traffic deck coating system designed for waterproofing concrete slabs and protecting occupied areas underneath from water damage — ready for overburden in under 1 hour after application.

Pro	duct	Coverage Rate	Wet Mils	Comments
1	Tremco PUMA Primer	90 ft²/gal	17	Lightly broadcast silica sand.
2	Tremco PUMA BC	20 ft²/gal	80	Allow 45 min to cure before proceeding.
3	Tremco PUMA TC	53-90 ft²/gal	17-30	Broadcast silica sand to refusal.
4	Overburden	N/A	N/A	Tile or pavers.





## TREMPROOF® PUMA BELOW-GRADE WATERPROOFING

Premium systems for waterproofing concrete and protecting occupied space from water damage

### HORIZONTAL WATERPROOFING SYSTEM

#### Split Slab, Paver Systems, Planters and Vegetated Roofs

A cold-applied system designed for waterproofing concrete slabs and protecting occupied areas underneath from water damage. This waterproofing system is ideal for split-slab, paver systems, planters and vegetated roofs.

Pro	duct	Coverage Rate	Wet Mils	Comments
1	Tremco PUMA Primer	90 ft²/gal	17	Lightly broadcast silica sand.
2	Tremco PUMA BC	20 ft²/gal	80	Allow 45 min to cure before proceeding.
3	TREMDrain®	N/A	N/A	Applicable TREMDrain series drainage mat
4	Compatible Insulation (optional)	N/A	N/A	By others.
5	Overburden	N/A	N/A	Topping slab or vegetated roof.

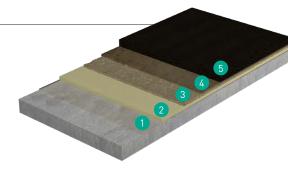


### **ASPHALT OVERLAY SYSTEM**

#### **Below-Grade Waterproofing Solutions for Parking Structures**

TREMproof PUMA is a cold-applied system designed for waterproofing concrete slabs and protecting occupied areas underneath from water damage. This waterproofing system is ideal for asphalt overlay.

Pro	duct	Coverage Rate	Wet Mils	Comments
1	Tremco PUMA Primer	90 ft²/gal	17	Lightly broadcast silica sand.
2	Tremco PUMA BC	20 ft²/gal	80	Allow 45 minutes to cure before proceeding.
3	Tremco PUMA WC	53 ft²/gal	30	Broadcast silica sand to refusal. Allow 60 min to cure before proceeding.
4	TREMprime HR Primer	150 to 300 ft²/gal	N/A	Tack coat
5	Overburden	N/A	N/A	Asphalt.





## TREMPROOF® PUMA BELOW-GRADE WATERPROOFING

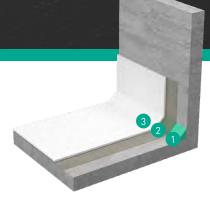
Premium systems for waterproofing concrete and protecting occupied space from water damage

## **FLASHING SYSTEM**

Cold-Applied Flashing Designed for Waterproofing Penetrations, Window Flashings and Block Trails

TREMproof® PUMA Flashing is a quick-cure, liquid-applied system. This system cures within 45 minutes, even in temperature below freezing, and has tenacious adhesion to concrete and metal.

Product		Coverage Rate	Wet Mils	Comments
1	Dymonic® 100 or Tremco PUMA BC T	N/A	N/A	N/A
2	Tremco PUMA Primer	90 ft²/gal	17	Lightly broadcast silica sand.
3	Tremco PUMA Flashing	27 ft²/gal	60	Allow 45 minutes to cure.



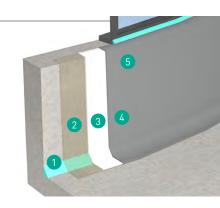


### **DECORATIVE FLASHING SYSTEM**

Aesthetically-Pleasing Waterproof Flashing is Faster, Easier than Stainless Steel

Designed to be used as a replacement for stainless steel flashing. Potential applications include curb-to-curtain wall, curb-to-facade, deck-to-door, balcony slider doors, exposed window flashings and more.

Product		Coverage Rate	Wet Mils	Comments
1	Dymonic® 100 or Tremco PUMA BC T	N/A	N/A	N/A
2	Tremco PUMA Primer	90 ft²/gal	17	Lightly broadcast silica sand.
3	Tremco PUMA Flashing	40 ft²/gal	40	Allow 45 min to cure.
4	Tremco PUMA TC	80 ft²/gal	20	Allow 45 min to cure.
5	Spectrem® 2	N/A	N/A	N/A





## TREMPROOF® PUMA BELOW-GRADE WATERPROOFING

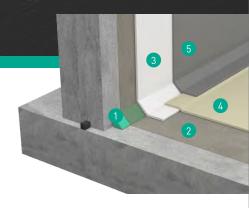
Premium systems for waterproofing concrete and protecting occupied space from water damage

## **PLANTER SYSTEM**

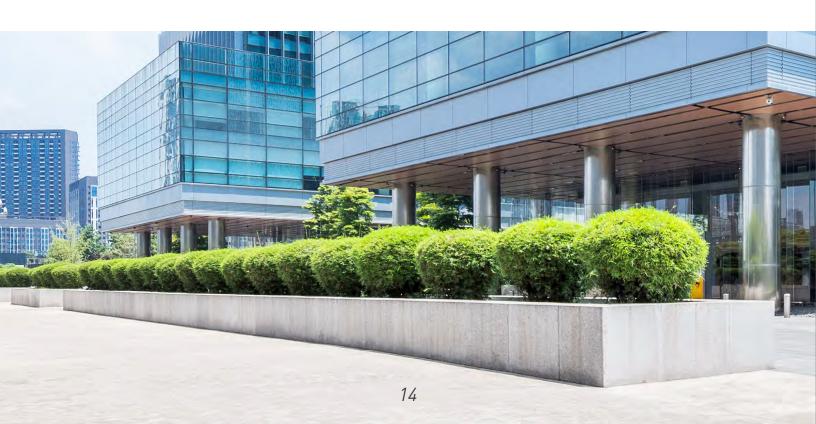
#### Enhanced Waterproofing for Planters without the Need for a Root Barrier

A cold-applied system designed for waterproofing concrete slabs and protecting occupied areas underneath from water damage. This waterproofing system is designed specifically for planter applications.

Pro	oduct	Coverage Rate	Wet Mils	Comments
1	Dymonic 100 or Tremco PUMA BC T	N/A	N/A	1" cant bead at all horizontal to vertical transitions.
2	Tremco PUMA Primer	90 ft²/gal	17	Lightly broadcast silica sand.
3	Tremco PUMA BC R	25 ft²/gal	65	Allow 45 minutes to cure before proceeding.
4	Tremco PUMA BC/ BC LM	20 ft²/gal	80	Allow 45 minutes to cure before proceeding.
5	Tremco PUMA TC	105 ft²/gal	15	Allow 60 minutes to cure.











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