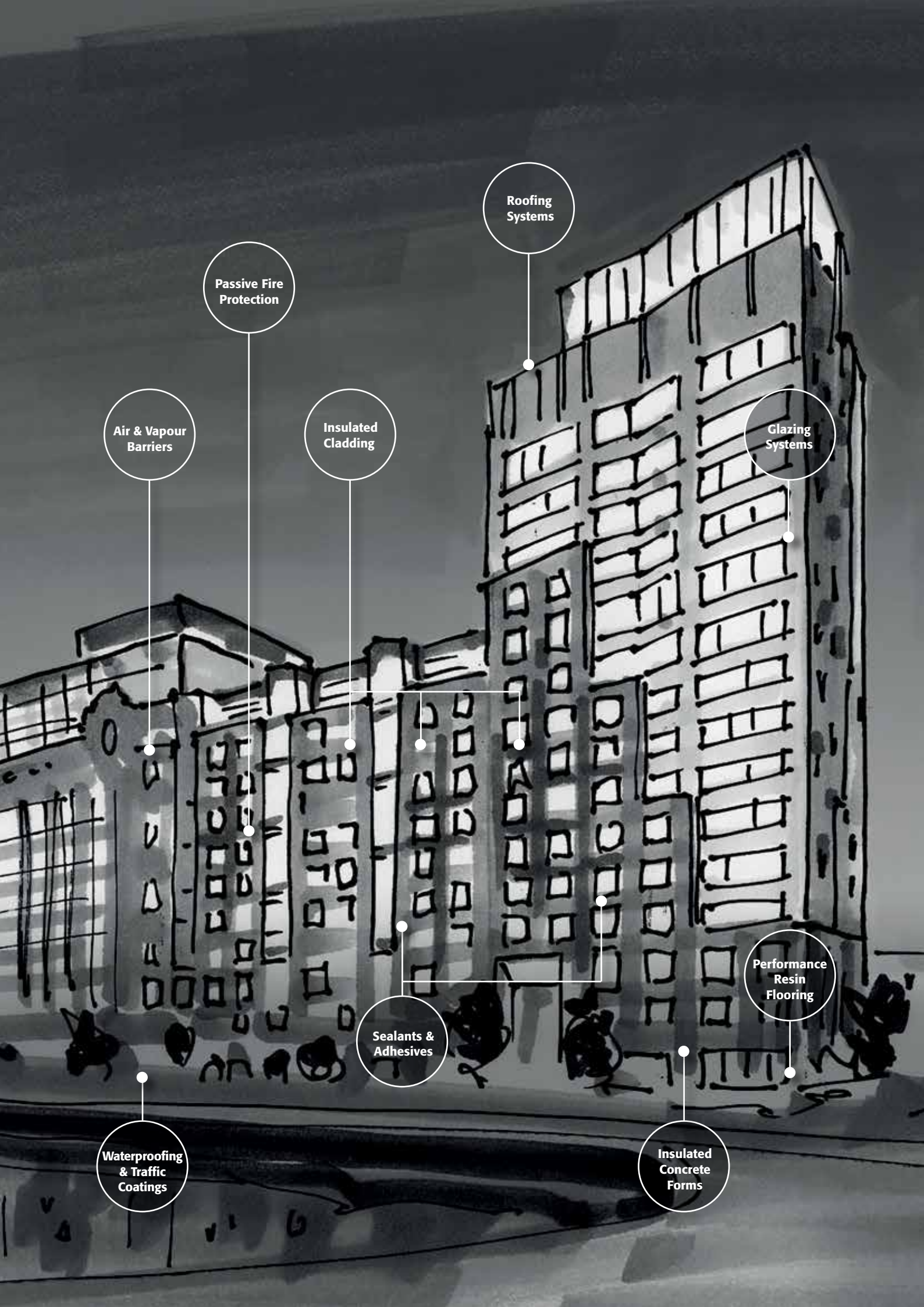




TREMCO PUMA TECHNOLOGY SYSTEMS

*Vulkem EWS Traffic Coatings / Tremco PUMA EJS
TREMproof PUMA Below-Grade Membranes*





Roofing
Systems

Passive Fire
Protection

Air & Vapour
Barriers

Insulated
Cladding

Glazing
Systems

Performance
Resin
Flooring

Sealants &
Adhesives

Waterproofing
& Traffic
Coatings

Insulated
Concrete
Forms

A world leading supplier of building envelope solutions across Asia Pacific

We know that the success of a construction project relies on more than the products that are used, as it takes a lot of skill, knowledge, understanding, and expertise to ensure that those products are applied in the best way possible.

At Tremco Construction Products Group (CPG), we're committed to shaping the future through innovative approaches and sustainable solutions.

This commitment is backed up by the fact that we bring together first-class technology with a customer-focused approach, along with skills that have been built up over multiple decades within very specialised fields across Asia Pacific, to provide a truly unique service.

From joint sealing, façade bonding and insulation through to passive fire protection, performance resin flooring, waterproofing, and roofing solutions — our broad range makes us the ideal partner to solve the complex challenges faced by today's architects, contractors, developers, and trades.

With expertise in a range of product technologies, Tremco CPG provides solutions to help you engineer structures that are more efficient to build and maintain, are virtually impervious to the elements, and can provide a multitude of finishes.

Our brands include Tremco, Dryvit, NewBrick, Nudura, Willseal, Flowcrete, Illbruck, Nullifire, Vandex, and Euclid Chemical.



Why Tremco CPG?



Faster Construction Time

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



Stronger and More Resilient

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



Cost Effective

A broad range of options that fit any budget — but also help you keep an eye on the future to ensure cost-effective ownership, operation and maintenance.



One Point of Contact

Products are tested for compatibility and backed by system warranties — all through a single point of contact, with a single point of responsibility.



Any Look You Want

A wide range of colours and finishes for floors, walls, façades and roofs to provide almost unlimited design potential for your building project.



Impervious to Weather

Products designed for maximum protection from the elements, including above and below ground-level solutions to prevent the ingress of water.



Better Insulated

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



Leading Edge Sustainability

Construction solutions that meet green building standards, enhancing building efficiency and conscious of the environment that surrounds us.

TREMCO PUMA TECHNOLOGY OVERVIEW

Tremco's **Vulkem EWS** traffic coating systems, select **TREMproof PUMA** below-grade waterproofing systems and the **Tremco PUMA EJS** (Expansion Joint System) feature PUMA (polyurethane-methacrylate) technology, which allows for superior 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 -7°C (20°F), or even down to -17°C (0°F) with **Tremco PUMA Cold Weather Catalyst**.



PUMA

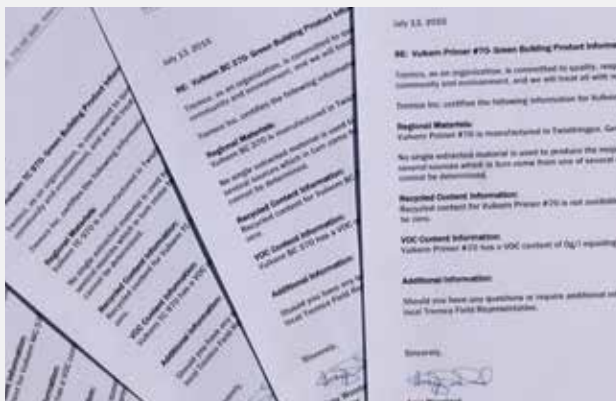


MMA

**SUPERIOR
ELONGATION**



**COMPATIBLE WITH TREMCO
SEALANTS AND COATINGS**



**ZERO VOLATILE ORGANIC
COMPOUNDS (VOCs)**



**SUPERIOR
CRACK BRIDGING**

Peace of Mind Guarantee

Our all-inclusive 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.

System Components*

- **Tremco PUMA Primer** - A methyl-methacrylate (MMA), two-component primer for porous and non-porous substrates.
- **TREMprime VB** - A two-component, epoxy-based solvent-free vapour barrier primer for concrete surfaces.
- **Tremco PUMA Initiator** - A benzoyl peroxide-based powder used to react all components of Tremco PUMA systems.
- **Tremco PUMA BC** - A modified 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 modified polyurethane-methacrylate (PUMA) base coat that bonds firmly to Tremco PUMA Primer, and is compatible with Tremco's TREMproof 6100.
- **Tremco PUMA EJ Basic** - The primary component of Tremco PUMA EJS systems, a joint compound material mixed with Tremco PUMA Initiator.
- **Tremco PUMA WC** - A modified polyurethane-methacrylate (PUMA) wear coat, loaded with aggregate to give the system excellent impact, abrasion and chemical resistance.
- **Tremco PUMA Filler Powder** - A crystalline silica powder used in conjunction with 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 colours.)*

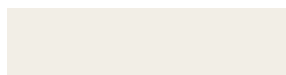
**Components of Vulkem EWS traffic coating systems, TREMproof PUMA below-grade waterproofing systems and Tremco PUMA Expansion Joint System*

Tremco PUMA TC Colour Options

Tremco PUMA TC (top coat) offers rapid curing, excellent abrasion resistance, UV stability and high chemical resistance as the final layer to complete **Vulkem EWS** traffic coatings and select **TREMproof PUMA** below-grade waterproofing systems.

It is available in four standard colours, four helipad and line-striping colours — and is tintable to an additional 70 colours with the use of Tremco's **Universal Color Pak**. If custom colours are needed, Tremco can custom match **PUMA TC** with **Universal Color Paks**.

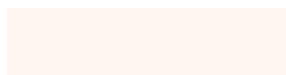
STANDARD COLOURS



White



Gray



Tintable



Beige

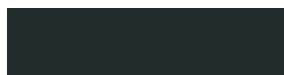


Slate Gray

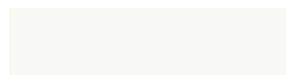


Charcoal

HELIPAD AND LINE STRIPING COLOURS



Black



FAA White



Banner Red



FAA Yellow

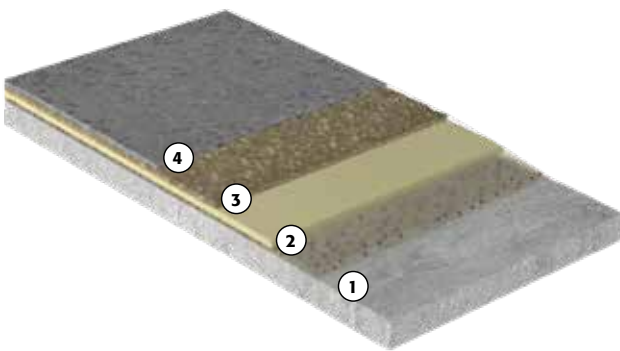
VULKEM EWS TRAFFIC COATINGS



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



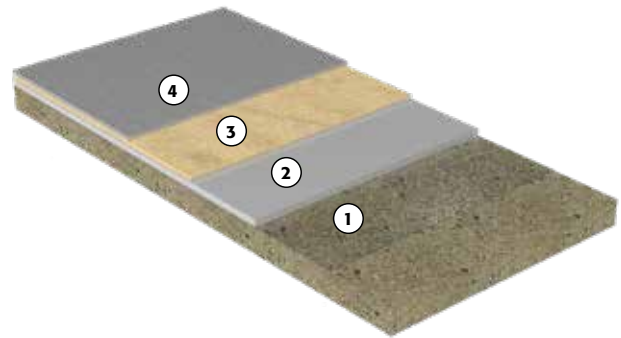
Product	Coverage Rate	Wet Mils	Comments
1 Tremco PUMA Primer	90 ft ² /gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft ² into wet primer.
2 Tremco PUMA BC	20 ft ² /gal	80	Allow 45 minutes to cure before proceeding.
3 Tremco PUMA WC with PUMA filler powder	25 ft ² /gal	65	Broadcast 16 to 30 mesh silica sand to refusal. Allow 45 minutes to cure before proceeding.
4 Tremco PUMA TC	53-90 ft ² /gal	17-30	Allow 60 minutes to cure before opening to traffic.





HYBRID SYSTEM: URETHANE

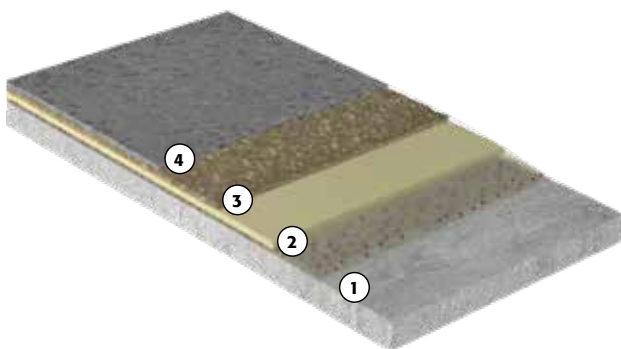
Vulkem Urethanes for Driving Lanes and Parking Stalls



Product	Coverage Rate	Wet Mils	Comments
1 Primer (condition dependent)	400 to 600 ft ² /gal	N/A	See local Tremco representative
2 Vulkem Base Coat	64 ft ² /gal	25	See mixing instructions
3 Vulkem Intermediate Coat	105 ft ² /gal	15	16 - 30 mesh silica sand
4 Vulkem Top Coat	133 to 160 ft ² /gal	10 to 12	Vehicular traffic 72 hours after cure

HYBRID SYSTEM: EWS

Vulkem EWS with PUMA Technology for Helical Turns, Ramps and Ticket Spitters



Product	Coverage Rate	Wet Mils	Comments
1 Tremco PUMA Primer	90 ft ² /gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft ² into wet primer.
2 Tremco PUMA BC	20 ft ² /gal	80	Allow 45 min to cure before proceeding.
3 Tremco PUMA WC with PUMA filler powder	25 ft ² /gal	65	Broadcast 16 to 30 mesh silica sand to refusal. Allow 45 min to cure before proceeding.
4 Tremco PUMA TC	53-90 ft ² /gal	17-30	Allow 60 min to cure before opening to traffic.

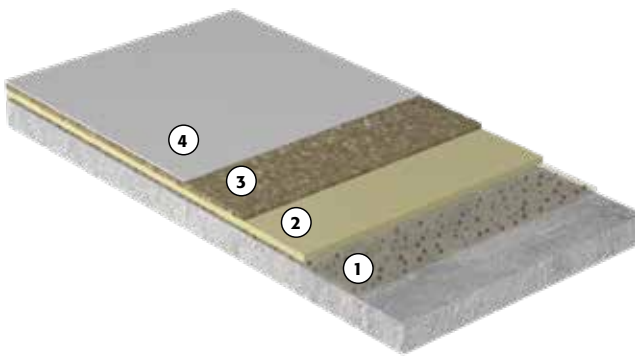
VULKEM EWS TRAFFIC COATINGS



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

PEDESTRIAN SYSTEM

Stadiums, Balconies and Pool Decks



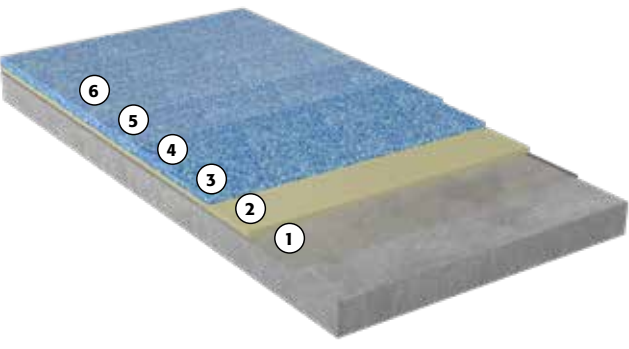
Product	Coverage Rate	Wet Mils	Comments
1 Tremco PUMA Primer	90 ft ² /gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft ² into wet primer.
2 Tremco PUMA BC	26 ft ² /gal	60	Allow 45 minutes to cure before proceeding.
3 Tremco PUMA TC	80-90 ft ² /gal	17-20	Broadcast silica sand to refusal into wet TC. Allow 45 minutes to cure before proceeding.
4 Tremco PUMA TC	53-64 ft ² /gal	25-30	Allow 45 minutes to cure before opening to traffic.





DECORATIVE WATERPROOFING

Aesthetically Appealing System with Extreme Durability



Product	Coverage Rate	Wet Mils	Comments
1 Tremco PUMA Primer	90 ft ² /gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft ² into wet primer.
2 Tremco PUMA BC	20 ft ² /gal	80	Allow 45 minutes to cure before proceeding.
3 Tremco PUMA WC	80 to 90 ft ² /gal	17 to 20	Broadcast UV-stable colour quartz to refusal. Allow 45 minutes to cure before proceeding.
4 Tremco PUMA WC	60 to 80 ft ² /gal	20 to 25	Broadcast UV-stable colour quartz to refusal. Allow 45 minutes to cure before proceeding.
5 Tremco PUMA TC	107 ft ² /gal	20	Allow 45 minutes to cure before opening to traffic.
6 Tremco PUMA TC	107 ft ² /gal	15	Allow 45 minutes to cure before opening to traffic.

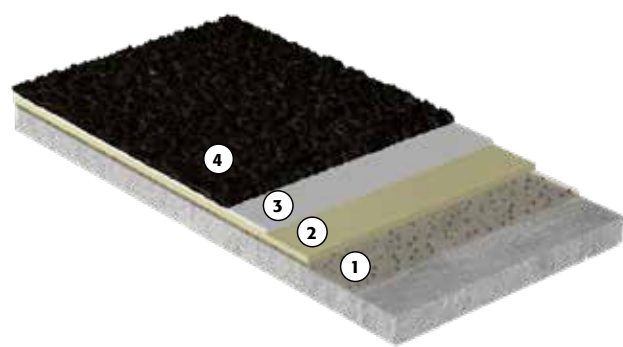
VULKEM EWS TRAFFIC COATINGS



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

HEAVY-DUTY SYSTEM

Parking Areas affected by Trucks,
Waste Disposal Areas and Loading Docks



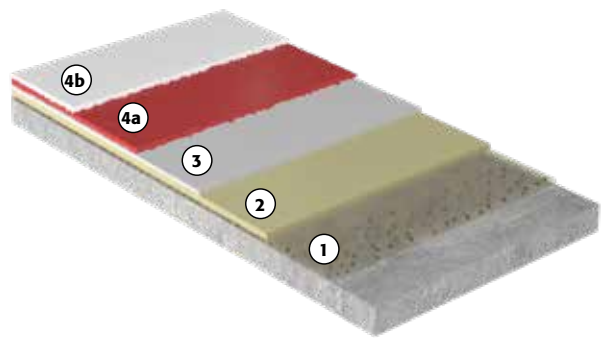
Product	Coverage Rate	Wet Mils	Comments
1 Tremco PUMA Primer	90 ft ² /gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft ² into wet primer.
2 Tremco PUMA BC	20 ft ² /gal	80	Allow 45 minutes to cure before proceeding.
3 Tremco PUMA WC with PUMA filler powder	16 ft ² /gal	100	Broadcast aluminum oxide (bauxite) to refusal. Allow 45 minutes to cure before proceeding.
4 Tremco PUMA TC	53-90 ft ² /gal	17-30	Allow 45 minutes to cure before opening to traffic.





HELIPAD SYSTEM

Durable Solution with Custom Colour Options



Product	Coverage Rate	Wet Mils	Comments
1 Tremco PUMA Primer	90 ft ² /gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft ² into wet primer.
2 Tremco PUMA BC	20 ft ² /gal	80	Allow 45 minutes to cure before proceeding.
3 Tremco PUMA WC with PUMA filler powder	25 ft ² /gal	65	Broadcast 16 to 30 mesh silica sand to refusal. Allow 45 minutes to cure before proceeding.
4a Tremco PUMA TC	64 ft ² /gal	25	Allow 30 minutes to cure before opening to traffic.
4b Tremco PUMA TC	64 ft ² /gal	25	Allow 60 minutes to cure before opening to traffic.

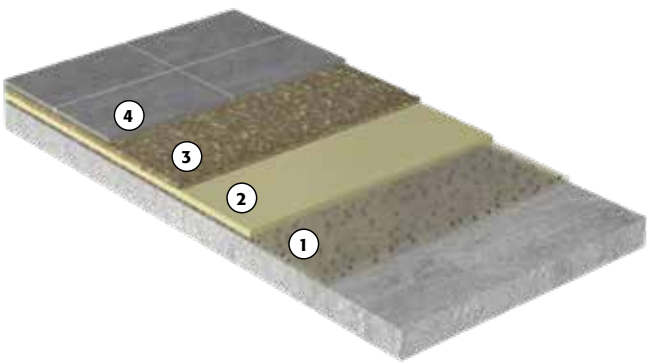
VULKEM EWS SPECIALTY COATINGS



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

UNDER TILE SYSTEM

Tiles, Pavers and Bonded Overburden

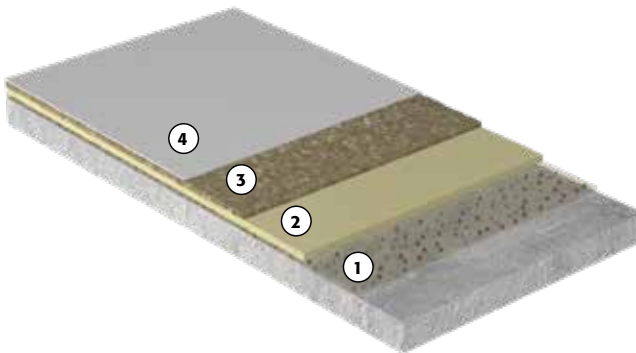


Product	Coverage Rate	Wet Mils	Comments
1 Tremco PUMA Primer	90 ft ² /gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft ² into wet primer.
2 Tremco PUMA BC	20 ft ² /gal	80	Allow 45 minutes to cure before proceeding.
3 Tremco PUMA TC	53-90 ft ² /gal	17-30	Broadcast 20 to 50 mesh silica sand into the wet TC to refusal. Allow 60 minutes to cure before proceeding with tile.
4 Overburden	N/A	N/A	Tile or pavers.

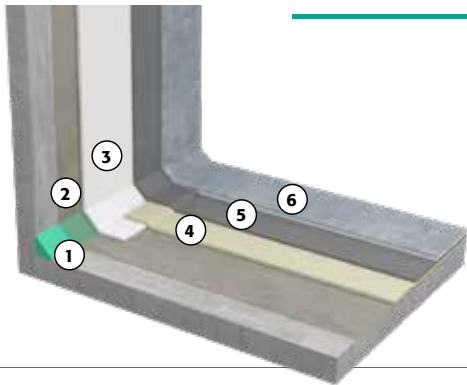


POOL DECK SYSTEM

Pool Decks and Splash Pads



Product	Coverage Rate	Wet Mils	Comments
1 Tremco PUMA Primer	90 ft ² /gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft ² into wet primer.
2 Tremco PUMA BC	26 ft ² /gal	60	Allow 45 min to cure before proceeding.
3 Tremco PUMA TC	80-90 ft ² /gal	17-20	Broadcast silica sand or color quartz to refusal into wet TC. Allow 45 min to cure before proceeding.
4 Tremco PUMA TC	53-64 ft ² /gal	25-30	Allow 60 min to cure before opening to traffic.



WATER FEATURE SYSTEM

Fountains and Decorative Water Features

Product	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 ft ² /gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft ² into wet primer.
3 Tremco PUMA BC R	20 ft ² /gal	80	Allow 45 min to cure before proceeding.
4 Tremco PUMA BC/BC LM	20 ft ² /gal	80	Allow 45 min to cure before proceeding.
5 Tremco PUMA TC	80 ft ² /gal	20	Allow 60 min to cure before proceeding. Optional: Broadcast 20 to 50 mesh 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.

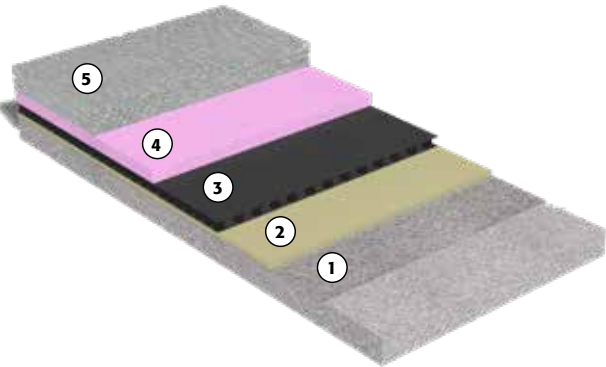
TREMPROOF PUMA BELOW-GRADE WATERPROOFING



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

HORIZONTAL WATERPROOFING

Split Slab, Paver Systems, Planters and Vegetated Roofs



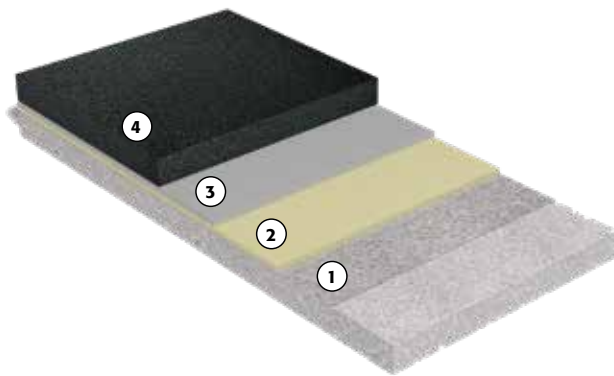
Product		Coverage Rate	Wet Mils	Comments
1	Tremco PUMA Primer	90 ft ² /gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft ² into wet primer.
2	Tremco PUMA BC	20 ft ² /gal	80	Allow 45 minutes to cure before proceeding.
3	TREMDrain® (optional)	N/A	N/A	TREMDrain 1000, TREMDrain 2000 or TREMDrain 6600 bonded to membrane with Dymonic 100.
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



Product	Coverage Rate	Wet Mils	Comments
1 Tremco PUMA Primer	90 ft ² /gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft ² into wet primer.
2 Tremco PUMA BC	20 ft ² /gal	80	Allow 45 minutes to cure before proceeding.
3 Tremco PUMA TC	64 ft ² /gal	25	Broadcast 2.3 to 3.4 mm-sized silica sand at a rate of 2 lb per 10 ft ² . Allow 60 minutes to cure before proceeding.
4 Overburden	N/A	N/A	Asphalt.

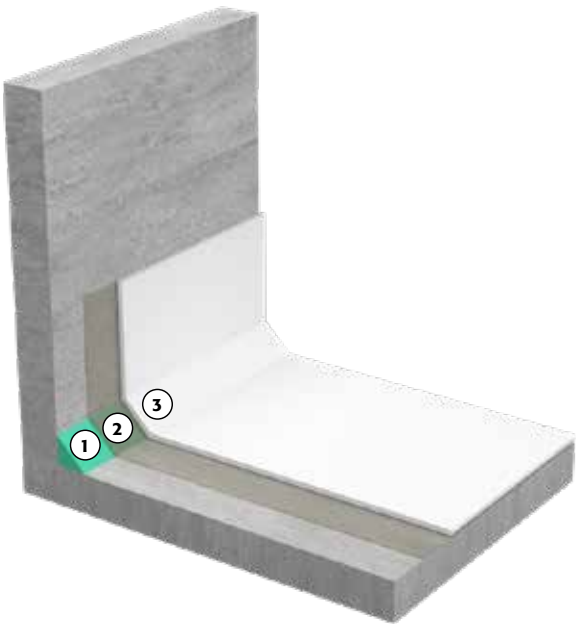
TREMPROOF PUMA BELOW-GRADE WATERPROOFING



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



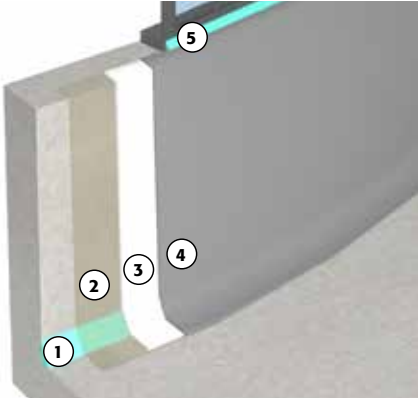
Product	Coverage Rate	Wet Mils	Comments
1 Dymonic® 100 or Tremco PUMA BC T	N/A	N/A	1" cant bead at all horizontal to vertical transitions.
2 Tremco PUMA Primer	90 ft²/gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft² into wet primer.
3 Tremco PUMA Flashing	27 ft²/gal	60	Allow 45 minutes to cure.





DECORATIVE FLASHING SYSTEM

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



Product	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 ft ² /gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft ² into wet primer.
3 Tremco PUMA Flashing	40 ft ² /gal	40	Allow 45 minutes to cure before proceeding.
4 Tremco PUMA TC	80 ft ² /gal	20	Allow 45 minutes to cure before proceeding.
5 Spectrem 1	N/A	N/A	N/A

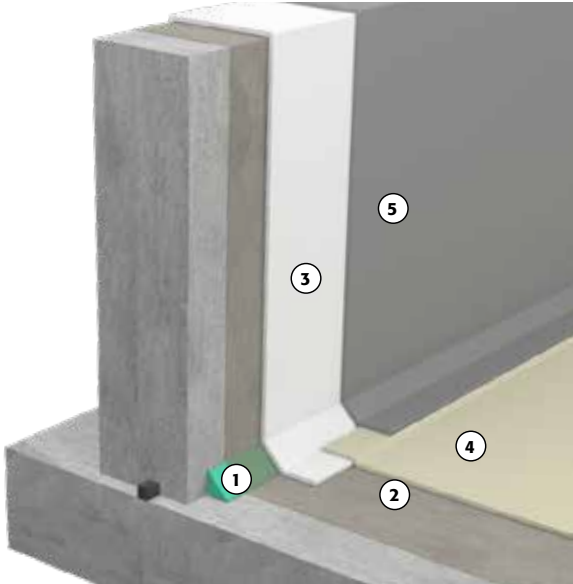
TREMPROOF PUMA BELOW-GRADE WATERPROOFING



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



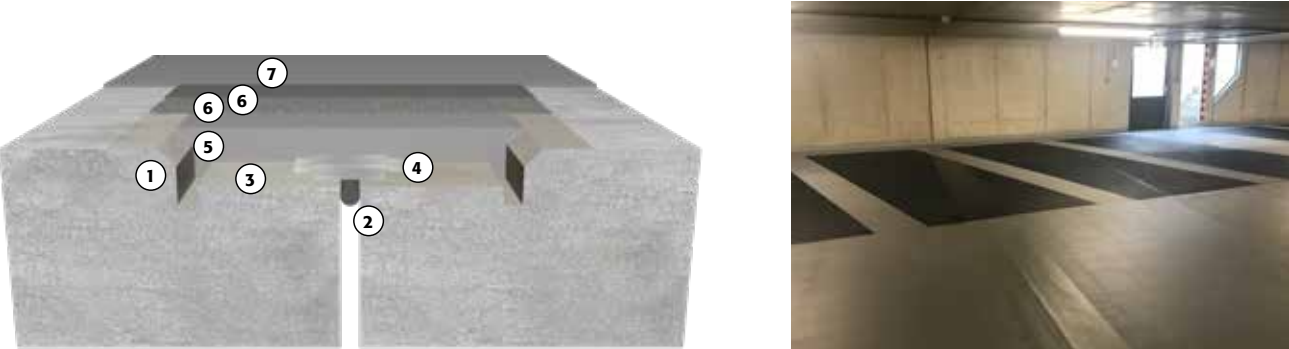
Product	Coverage Rate	Wet Mils	Comments
1 Dymonic 100 or Tremco PUMA BC T	N/A	N/A	1" cant bead at all horizontal to vertical transitions.
2 Tremco PUMA Primer	90 ft ² /gal	17	Broadcast 30 to 50 mesh silica sand at a rate of 7 lb per 100 ft ² into wet primer.
3 Tremco PUMA BC R	25 ft ² /gal	65	Allow 45 minutes to cure before proceeding.
4 Tremco PUMA BC/BC LM	20 ft ² /gal	80	Allow 45 minutes to cure before proceeding.
5 Tremco PUMA TC	105 ft ² /gal	15	Allow 45 minutes to cure before proceeding.





Tremco PUMA EJS (Expansion Joint System)

Monolithic, liquid expansion joint system with superior durability and excellent movement capabilities. For buried or exposed applications.



Product	Comments
1 Tremco Beveled Anchor Profile	Patent-pending profile that features anchor cuts and 45° beveled cuts for maximum adhesion to surrounding concrete.
2 Joint Backing Material	Backer rod, ExoAir LEF or other Tremco-approved backing material.
3 Tremco PUMA Primer	Applied at 17 mils. Mixed with Tremco PUMA Initiator.
4 Aluminum Tapes	Aluminum butyl-backed tape applied over the throat, followed by aluminum heat-resistant tape. Larger throats might require a metal plate in lieu of the butyl-backed tape.
5 Tremco PUMA EJ Basic	Joint compound material mixed with Tremco PUMA Initiator.
6 Tremco PUMA TC	Two coats. Lightly broadcast silica sand (16-30 mesh) into the first wet topcoat.
7 Traffic Coating System	Optional. Must be compatible with Tremco PUMA EJS.

Tremco Construction Products Group (CPG) represents the combined power of brands including Dryvit, NewBrick, Nudura, Willseal, and Tremco, along with Tremco CPG affiliates Flowcrete, illbruck, Nullifire, Vandex and Euclid Chemical.

Our products and services empower teams to develop, design, restore and engineer structures that are more efficient to build and maintain, are virtually impervious to the elements and can provide any look desired.

www.tremcocpg-asiapacific.com

