

## Product Description

Vulkem® EWS is a cold-applied, waterproofing system that utilizes polyurethane-methacrylate (PUMA) technology. PUMA waterproofing systems offer superior elongation over traditional MMA/PMMA technology systems. Vulkem EWS is composed of a primer (Tremco PUMA Primer), a base coat (Tremco PUMA BC), and a top coat (Tremco PUMA TC). All system components are cured using Tremco PUMA Initiator.

Tremco PUMA Primer is a methyl-methacrylate (MMA), two-component primer for porous and non-porous substrates. Tremco PUMA BC, a modified polyurethane-methacrylate (PUMA) base coat, 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, a modified polyurethane-methacrylate (PUMA) base coat, bonds firmly to Tremco PUMA Primer. Tremco PUMA BC LM is a low-modulus waterproofing membrane that is used when dynamic movement and extreme service temperature ranges are anticipated.

Tremco PUMA TC is a methyl-methacrylate (MMA) top coat. Interlaminar adhesion to Tremco PUMA TC is exceedingly strong. The top coat affords excellent abrasion resistance, UV stability and chemical resistance to complete the Vulkem EWS.

## Basic Uses

Vulkem EWS is ideal for under tile application. Vulkem EWS is a cold-applied traffic deck coating system designed for waterproofing concrete slabs and protecting occupied areas underneath from water damage. Additionally, the system will protect the concrete from the damaging effects of chloride, deicing salts, chemicals, gasoline, oils and anti-freeze.

## Features and Benefits

- Polyurethane-methacrylate (PUMA) technology delivers extreme durability while maintaining its crack-bridging characteristics.
- 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 below 20 °F, which allows for continuation of projects in the colder months.
- Initiator adjustments allow for 30 to 45 min cure time between applications, even at temperatures below freezing.
- Compatible with Tremco sealants and coatings, which is essential for tie-ins, detailing and penetrations.
- Extremely forgiving application allows users to apply additional coats long after the previous coat has cured.
- Unique chemistry allows for easy repair.

## Availability

Immediately available from your local Tremco Sales Representative.

## Packaging

Tremco PUMA Primer: 6-gal pails

Tremco PUMA BC: 6-gal pails

Tremco PUMA BC LM: 6-gal pails

Tremco PUMA TC: 6-gal pails

Tremco PUMA Initiator: 55-lb bags

Tremco PUMA Cleaner: 6-gal pails

## Colors

Tremco PUMA TC is available in Gray, Slate Gray, Tintable and Clear.

## Fire Rated Assemblies

ANSI/UL790 - Standard Test Methods for Fire Tests of Roof Coverings

CAN/ULC-S107 - Methods of Fire Tests of Roof Coverings

## Applicable Standards

ASTM C957

CSA S413

## Installation

Concrete shall be water-cured and attain a 4000 PSI minimum compressive strength. Concrete finish shall be a light steel trowel followed by an equivalent ICRI #3-#4 finish. Moisture content in the concrete must be lower than 6% as measured using a TrameX CME 4 Moisture Meter. Depending on concrete construction and job site location, additional concrete testing may be required. Please contact your local Tremco Sales or Technical representative.

Please refer to the Vulkem EWS 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

- Do not apply to damp or contaminated surfaces.
- Use with adequate ventilation.

## Warranty

Tremco warrants its Products to be free of defects in materials but makes no warranty as to appearance or color. Since methods of application and on-site conditions are beyond our control and can affect performance, Tremco makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE with respect to Tremco Products. Tremco's sole obligation shall be, at its option, to replace or to refund the purchase price of the quantity of Tremco Products proven to be defective, and Tremco shall not be liable for any loss or damage.

Please refer to our website at [www.tremcosealants.com](http://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.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TREMCO PUMA BC (All Grades)	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 mgm
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 (°F)	ASTM D1929	800°	850°
Smoke Density (%)	ASTM D2843	4.1%	2.1%
Rate of Burn (in/min)	ASTM D635	1.2 in/min	0.2 in/min

O118/EWSUTDS

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