TREMCO

TECHNICAL DATA SHEET

VAPORLOCK™-M VOC BARRIER

Spray-Applied Polymer-Enhanced Asphalt Barrier

PRODUCT DESCRIPTION

VaporLock-m is a unique system that uses our superior barrier TUFF-N-DRI® MV membrane applied to our Tremco® 10 Mil "Class A" Vapor Barrier, or approved geotextile fabric to prevent methane from entering the building through the foundation slab or other treated surface.

VaporLock-m is a system consisting of TUFF-N-DRI® MV polymer-enhanced asphalt barrier that is seamlessly spray-applied to the substrate. A highly protective thickness of at least 44 mils dry is required. Additional thickness may be required based upon local code or engineering consideration. The barrier's flexibility enables it to withstand thermal expansion and contraction with no compromise in performance.

In addition to the barrier membrane, DrainStar® or TREMDrain® drain mat is included in the VaporLock-m installation. The engineered cones of DrainStar collect and disperse methane and moisture seeping through the soil.

SITE PREPARATION

- Provide a minimum 24 inches of clearance around the area to receive VaporLock-m.
- To avoid staining, apply masking or otherwise protect all adjacent areas or fixtures not to receive VaporLock-m.
- Moisture-condition and compact the subgrade to a minimum relative compaction of 90 percent or as specified by a civil engineer. Make sure the subgrade surface is free of debris and all dirt clods or stones larger than ¼ inch, so that the finished surface is smooth and uniform.
- Properly secure all plumbing, electrical, mechanical and structural items that will penetrate VaporLock-m.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	DESCRIPTION
Type	Polymer- enhanced asphalt liquid-applied membrane
Color	Black
Solids	63% + 3% [percent by weight]
Density	8.1 lbs/gal
Application	Airless Spray
Application Temperature	Minimum 20°F
Application Thickness	44 mils [dry]1 solid surface 60 mils [dry]1 geotextile fabric
Coating Cure Time	16-24 hrs Weather-resistant < 30 minutes

PROPERTY	TEST METHOD	TYPICAL RESULTS
Adhesion to Concrete	ASTM C836	Exceeds
Elongation	ASTM D412	>2000%
Low Temperature Flexibility	See2	Flexible to 30°F (-1°C)
Crack Bridging Ability	ASTM C836	Exceeds 10 cycles to 1/8'' at 30°F (-1°C)

TYPICAL PHYSICAL PROPERTIES		
Water Vapor Permeance	ASTM E96 Dry Method	0.08 perms for 40-mil dry coating [grains/sf/hr in Hg]
Liquid Water Absorption	ASTM D12283	350 to 450 psi 0.3% [wt]
Resistance to Degradation in Soil	ASTM E154	Good
Mold Growth and Bacterial Attack	ASTM D3273 ASTM D3274	No degradation

1 Membrane mil thickness based upon local code or engineering consideration

2 Bend membrane compounds around 1'' mandrel

3 72 hour water soak 1'' x 2'' x 0.40'' samples of membrane compound

GEOTEXTILE FABRIC		
PROPERTY	**TEST METHOD**	**TREMCO® 10 MIL "CLASS A" VAPOR BARRIER**
Thickness, Nominal		10-mil 0.25 mm
Weight (Per MSF)		40.8 lbs
Classification	ASTM E1745	Exceeds Class A, B, C
Puncture Resistance	ASTM 1709	15,839 grams max weight
Puncture Resistance	ASTM E 154, Sec. 10	91.59 kg
Puncture Resistance	ASTM D5602	76 lbs
Tensile Strength (new material)	ASTM E154, Sec.9	136 lbf/in (MD), 134 lbf/ in (TD) 23.8 kN/m (MD), 23.5 kN/m (TD)
Tensile Strength (after soaking)	ASTM E154, Sec.9	140 lbf/in (MD), 133 lbf/in (TD) 24.5 kN/m (MD), 23.3 kN/m (TD)
Elongation (new material)	ASTM E154, Sec.9	21.6% lbf/in (MD), 21.0% lbf/in (TD)
Elongation (after soaking)	ASTM E154, Sec.9	24.9% lbf/in (MD), 20.6% lbf/in (TD)
Tear Strength	ASTM 751, Tongue	54 lbs (warp), 57 lbs (weft) 24.5 kg (warp), 25.8 kg (weft)
Bursting Strength	ASTM D751, Mullen	318 lbs 144kg
Water Vapor Permeance (new material)	ASTM E96 / 154 Sec. 7	0.0016 perms (U.S.) 0.0010 perms (metric)
Chemical Resistance	ASTM E154	Unaffected
Life Expectancy	ASTM E154	Indefinite
Radon Diffusion Coefficient	K/124/02/95	11 X 10-12 M2/S

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.

VLM-DS/0223