

**CE-245A**  
**09/13 Supersedes 06/04**

### **PENNTROWEL<sup>®</sup> EPOXY 60 / 60 MR LINING SYSTEM SILICA AND CARBON GRADE**

#### **DESCRIPTION**

PENNTROWEL Epoxy 60 MR Lining is a nominal 60-65 mil epoxy-based monolithic lining system. The system consists of a penetrating primer, followed by a 60 mil trowel applied base coat. An optional final topcoat can be added to seal the lining and adjust finished surface texture if desired.

To upgrade the system, PENNTROWEL 60 *MR* can be specified. This option incorporates a glass mat reinforcement layer and saturant over the primer to minimize crack transmission into the lining in the event cracks emanate from the concrete.

For immersion service Corrosion Engineering recommends specifying the upgraded *MR* system. PENNTROWEL Epoxy 60 MR Lining has been formulated to perform in chemical immersion, as well as splash and spill. The system can perform well in the wide range of temperatures common to sumps, trenches, pits and vessels. **Consult Corrosion Engineering specification [CES-352](#) for complete usage and installation details.**

#### **AREAS OF USE**

PENNTROWEL Epoxy 60 / 60 MR Lining is used to protect concrete and steel substrates in trenches, pits, vessels, sumps, manways, and floors - both in and out of doors, that are subjected to a wide variety of corrosive agents. It is suitable for moderate to heavy traffic environments.

NOTE: Use PENNTROWEL Epoxy 60 / 60 MR *Carbon Grade* in hydrofluoric acid, hot caustic chemical service, or where a static disseminating, electrically conductive or spark proof floor is required.

#### **OUTSTANDING FEATURES**

- Excellent physical properties - very broad chemical resistance.
- Extremely low absorption and shrinkage.
- Easy workability - quick 2 step application for basic system - primer and basecoat.
- Optional reinforcing adds strength thus reducing the possibility of cracking.

**TYPICAL PHYSICAL PROPERTIES**

PROPERTY	SILICA	CARBON
Wet Density, lbs/cu. ft.	110	101
Compressive Strength, psi (ASTM C-579)	9,200	14,300
Tensile Strength, psi (ASTM C-307)	1,700	2,200
Coefficient of Expansion, in./in/°F (ASTM C-531)	3.4 x 10 <sup>-5</sup>	3.5 x 10 <sup>-5</sup>
Shrinkage, (ASTM C-531) @ 28 days	0.13%	0.11%
Modulus of Elasticity, psi (ASTM C-580)	8.8 x 10 <sup>5</sup>	6.2 x 10 <sup>5</sup>
Flexural Strength, psi (ASTM C-580)	3,100	4,500
Service Temperature Limit (Depending on chemical exposure)	160°-180° F	160°-180° F

**ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE**

STEP	PRODUCT	CODE	PACKAGING	COVERAGE
Primer	PENNTROWEL Epoxy Primer	19676	4 x 1 gal units/case	800 SF/case (200 SF/ gal @ 8 mils WFT)
Base coat	PT Epoxy Resin PT Epoxy Hardener PT L/F Filler	19680 19677 19642	4 x 9.2 lb (1 gal) cans/case 4 x 0.75 lb (0.75 pt) cans/case <u>2 x 55 lb bags</u> 150 lb unit (1.36 cu ft)	262 SF @ 1/16" thickness per 150 lb unit
Option: Glass cloth (1.0 oz)	MR Reinforcing Mat	19639	50" x 125 YD (1500 SF) roll	1500 SF/roll
Option: Saturant for cloth	PENNTROWEL Epoxy Primer	19676	4 x 1 gal units/case	100 SF / mixed gallon as saturant for 1 oz cloth
Option: Top Coat	PT Epoxy Resin PT Epoxy Hardener	19680 19677	4 x 1 gal (9.2 lb) cans/case 4 x 0.75 pt. (0.75 lb) cans/case	800 SF/case (200 SF/gal @ 8 mils WFT)
<b>For PENNTROWEL Epoxy Carbon Grade, substitute the following for Base Coat and Cloth layers above</b>				
Base Coat for Carbon Grade	PT Epoxy Resin PT Epoxy Hardener PT L/F Filler Carbon	19680 19677 29446	4 x 1 gal (9.2 lb) cans/case 4 x 0.75 pt. (0.75 lb) cans/case <u>72 lb (2 x 36 lb bags)</u> 112 Lb unit (1.1 cu ft)	210 SF @ 1/16" WFT per 112 lb unit
Reinforcing mat for Carbon Grade	Nexus ® Veil	21925	48" x 500 yd (6000 SF) roll	6000 SF/roll

**SAFETY PRECAUTIONS / DISCLAIMER**

Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and [material safety data sheets](#) before using. While all statements, technical information, and recommendations contained herein are based on information our company believes to be reliable, nothing contained herein shall constitute any warranty, express or implied, with respect to the products and/or services described herein and any such warranties are expressly disclaimed. We recommend that the prospective purchaser or user independently determine the suitability of our product(s) for their intended use. No statement, information or recommendation with respect to our products, whether contained herein or otherwise communicated, shall be legally binding upon us unless expressly set forth in a written agreement between us and the purchaser/user.



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