ErgonArmor
TECHNICAL COATING SOLUTIONS™

PRODUCT INFORMATION

CE-245B
10/18 Supersedes 09/13

PENNTROWEL™ VINYL ESTER 60 / 60 MR LINING SYSTEM

DESCRIPTION

PENNTROWEL Vinyl Ester 60 / 60 MR Lining is a 60-65 mil vinyl ester-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.

To upgrade the system, PENNTROWEL Vinyl Ester 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 it is suggested to specify the upgraded *MR* system. PENNTROWEL Vinyl Ester 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 Vinyl Ester 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 ideal as a secondary containment lining.

NOTE: Specify the used of PENNTROWEL Vinyl Ester 60 MR *Carbon Grade* in hydrofluoric acid or hot caustic chemical service. Consult Corrosion Engineering for details.

OUTSTANDING FEATURES

- Excellent physical properties.
- Extremely low absorption and shrinkage.
- Excellent chemical resistance.
- Reinforcing adds strength thus reducing the possibility of cracking.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	PENNTROWEL® VE 60 / 60 MR Lining	
	Silica Grade	Carbon Grade
Wet density, lbs/cu. ft.	115	102
Compressive strength, psi (ASTM C-579)	14,500	20,000
Tensile strength, psi (ASTM C-307)	1,800	2,200
Coefficient of expansion, in./in/°F (ASTM C-531)	1.1 x 10-5	---------
Shrinkage, (ASTM C-531) @ 28 days	0.2%	0.8%
Modulus of elasticity, psi (ASTM C-580)	1.7 x 106	1.05 x 10^6
Flexural strength, psi (ASTM C-580)	3,500	4,800
Service temperature limit (Depending on exposure)	225°F	225° F

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

STEP	PRODUCT	CODE	PACKAGING	COVERAGE
Primer	PT VE Primer Resin PT VE Primer Resin CHP Hardener	19514 19515 19552	4 x 0.75 Gal (6.4 lb) cans/case 5 Gal (43 lb) pail 0.7 Pint (0.75 lb) bottle	200 SF/ mixed gal @ 8 mils WFT. Coverage can vary with surface texture.
	Note: Use 1 bottle CHP Hardener with 4 x.75 gal cans or 1 x 5 gal pail of PT VE Primer Resin			
Base coat for Silica Grade	PT VE Resin CHP Hardener PT L/F Filler	19636 19552 19642	4 x 7.9 lb (0.9 gal) cans/case 1 x 0.75 lb (0.7 pint) bottle 2 x 55 lb bags 142 Lb unit (1.23 cu ft)	A 142 lb unit will cover 236 SF @ 1/16" WFT.
Option: Glass mat	1 oz MR Reinforcing Mat	19639	50" x 125 YD (1500 SF) roll	1500 SF/roll
Option: Saturant for cloth	Use PT VE Primer Resin and CHP Hardener above as saturant.			50 SF / mixed gallon as saturant for 1 oz. cloth
Option: Top Coat	PT VE Resin CHP Hardener	19636 19552	4 x 1 gal cans/case 0.7 pint bottle 1 x 4 gal ut = 1 case resin and 1 x 0.7 pint bottle hardener.	200 SF/gal @ 8 mils WFT. Broadcast non slip aggregates into topcoat as desired. A second top coat to further seal can be added if desired.
For PENNTROWEL VE 60 Carbon Grade, substitute the following for Base Coat and Cloth layers above				
Base Coat for Carbon Grade	PT VE Resin CHP Hardener PT L/F Filler Carbon	19636 19552 29446	4 x 7.9 lb (0.9 gal) cans/case 1 x 0.75 lb (0.7 pint) bottle 72 lb (2 x 36 lb bags) 104 lb unit (1.0 cu ft)	A 104 lb unit will cover 192 SF @1/16" WFT
Reinforcing mat 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.