

CE-232
12/13 Supersedes 05/04

PENNTROWEL[®] 250 EPOXY UNDERLAYMENT

DESCRIPTION

PENNTROWEL 250 Epoxy Underlayment is a high performance silica-filled epoxy based underlayment. It has been formulated with the most up-to-date resin technology to withstand high temperatures and thermal cycling. It exhibits excellent chemical, abrasion, and impact resistance. PENNTROWEL 250 Epoxy Underlayment is specifically designed for use in wet areas that are difficult to keep dry during installation. It may be applied over damp concrete or placed into areas with standing water. The installed, cured underlayment exhibits excellent physical properties and adhesion.

PENNTROWEL 250 Epoxy Underlayment can be applied in a wide variety of thicknesses. When resurfacing exceeds two inches, up to 25% pea gravel may be added. Peagravel or other aggregates must be dry and free of salt and other contaminants. **Consult Corrosion Engineering specification [CES-232](#) for complete installation details.**

AREAS OF USE

- Repair or patch worn or deteriorated concrete floors, stairs, or pump bases. PENNTROWEL 250 Epoxy Underlayment is compatible with the following Corrosion Engineering systems: PENNTROWEL Floor Surfacer Systems, THINSET[®] Adhesive, TUFCEM[®] Tiling Systems, TUFCEM II Membrane, PENNTROWEL L/F Systems, and PENNCOAT[®] Membrane/Lining Systems. Unlike latex-based underlayments, PENNTROWEL 250 Epoxy Underlayment is compatible with Vinyl Ester Systems. Consult Corrosion Engineering before using with Vinyl Ester Systems.
- Designed for areas that are difficult to keep dry during installation.

OUTSTANDING FEATURES

- Higher compressive, tensile, and flexural strength compared to regular sand/ cement mixes.
- Fast strength development - allows for quick installation of subsequent lining system on repaired concrete without costly down time.
- Moisture tolerant. Excellent adhesion to properly prepared substrates.
- Components are proportioned for easy mixing.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	PENNTROWEL 250 Epoxy Underlayment
Wet Underlayment Density	132 lbs / cu ft (2.1 kg/l)
Tensile Strength (ASTM C-307)	2000-2500 psi
Compressive Strength (ASTM C-579) 4.5 hours 18 hours 24 hours 7 days	>1000 psi (Foot Traffic) >6000 psi (Forklift Traffic) 9000-10000 psi (Heavy Traffic) 12500-13000 psi (Ultimate Compressive Strength)
Required Minimum Cure Time Before Installation of Lining	8 -16 hrs - varies with ambient temperature and thickness of lining
Adhesion to Concrete (ASTM C-321)	Greater than the tensile strength of concrete
Water Absorption (ASTM C-413)	0.02%
Coefficient of Thermal Expansion (ASTM C-531)	17×10^{-6} /in/in /°F
Shrinkage (ASTM C-531)	Ultimate 0.05%
Flexural Strength (ASTM C-580)	3500-4000 psi
Mix Ratio	1.0:0.42:8-9 (Resin:Hardener:Filler) By Weight 2:1 (Resin:Hardener) By Volume
Color	Medium gray

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

PRODUCT	CODE	PACKAGING	COVERAGE
PT 250 Resin - Gray	19635	1 x 5 gal Pail (47 lbs)	One 487 lb unit (3.7 cu ft) of PENNTROWEL 250 Epoxy Underlayment consists of 7 x 60 bags filler, 1 x 5 gal pail resin and 1 x 2.5 gal can hardener. It will cover 44.5 SF @ 1" thickness. Up to 1 additional bag of Grout Filler may be added if a stiffer mix is desired.
PT 250 Hardener	19633	1 x 2.5 gal J-Can (20 lbs)	
TUFCEM® Grout Filler	21931	7 x 60 lb Bags	

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.



Corrosion Engineering | 300 Stevens Drive, Suite 310, Lester, PA 19113
 +1-610-833-4001 Phone | +1-610-833-3040 Fax | corrosion-engineering.com