

CE-285
09/13 Supersedes 05/05

PENNCOAT[®] 227 / 227 MR LINING

DESCRIPTION

PENNCOAT 227 and 227MR (*Mat Reinforced*) linings are premium quality flake-filled, novolac epoxy polymer lining systems for concrete and steel. PENNCOAT 227 is applied in two 10-12 mil coats for a total lining thickness of 20-24 mils, plus primer. When used on concrete substrates it is used in conjunction with PENNTROWEL[®] Epoxy Primer (CE-139). No primer is needed for steel substrates. PENNCOAT 227 may also be used without a primer as a topcoat for other Corrosion Engineering lining systems. PENNCOAT 227 MR is similar to PENNCOAT 227, but has incorporated into the primer layer a 1oz chopped strand glass mat reinforcement. This reduces the transmission of hairline cracks from the concrete. **Consult Corrosion Engineering specification [CES-342](#) for complete installation details.**

AREAS OF USE

Floor lining for foot, fork truck traffic, and chemical splash and spill.

Secondary containment lining system. Suitable for concrete and steel.

Steel process and storage vessel linings. Consult Corrosion Engineering to confirm specific application suitability.

Top coat surface sealer for other lining systems such as PENNTROWEL[®] N-13, 250, 250SB/SBR, and others.

Protection of steel ducts, stacks, and associated vessels and air pollution control equipment from corrosive acids and fumes.

Suitable for concentrated chemical service including 98% sulfuric, 37% hydrochloric, and 20% nitric acid.

OUTSTANDING FEATURES

- PENNCOAT 227 Lining utilizes premium quality novolac resin technology and shows excellent resistance to a wide range of acids, alkalies, and solvents.
- PENNCOAT 227 Lining is flake filled, resulting in significantly improved permeation ratings compared to non flake filled systems. PENNCOAT 227 MR additionally utilizes a chopped strand glass mat reinforcement in the primer layer to minimize potential for crack transmission.
- PENNCOAT 227 Lining is 100% reactive. Contains no VOC's.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	PENNCOAT 227
Color of cured lining	Concrete grey
Moisture Permeability (ASTM E96)	0.0069 perm-inch (2.1 x 10 ⁻¹⁰ cm/sec)
VOC Content / Solids by weight	0.0 kg/liter (0.0 lb/gal) / 100%
Maximum service temperature	170°F splash & spill, 250°F in flue gas environments
Flexural strength (ASTM D790)	500 psi; 7 days cure
Barcol hardness (48 Hour)	50-60 (Type D-2)
Tensile strength (ASTM D638)	3460 psi; 7 days cure
Flash point (Pensky-Martins Closed Cup)	227 Resin > 212°F, 6711 Hardener > 212°F
Work life / Tack free / Full cure time	@ 50°F (10°C) - 2 hours / 16 hours / 72 hours @ 70°F (23°C) - 30 minutes / 8 hours / 48 hours @ 90°F (32°C) - 20 minutes / 6 hours / 24 hours
Mix ratio - Resin:Hardener by volume	2.0:1

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

STEP	PRODUCT	CODE	PACKAGING	COVERAGE
Primer (concrete)	PENNTROWEL® Epoxy Primer	19676	4 x 1 gal units/case	175 SF/gal @ 8-10 mils WFT
Basecoat and/or Topcoat	PC 227 Resin Grey 6711 Hardener	19589 25999	3.0 gal pail 1.5 gal pail 4.5 gal unit	135 SF/gal @ 12 mils WFT. 2 coats required - basecoat and topcoat. Coverage depends upon surface profile. A rough substrate may reduce coverage of the first coat due to surface irregularities.
FOR MR (REINFORCED) VERSION, INSERT THE FOLLOWING AFTER PRIMER LAYER				
Mat reinforcement	1 oz chopped mat	19639	50" x 125 yd roll	1500 sf per roll
Saturant for reinforcement	PT Epoxy Primer	19676	4 x 1 gal units/case	Allow 125 SF/gal

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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