Corrosion Engineering
A Division of ErgonArmor

PRODUCT INFORMATION

CE-259
09/13 Supersedes 05/01

PENNCOAT ® 331 / 331MR LINING

DESCRIPTION

PENNCOAT 331 is a 30-35 mil lining system based on premium grade novolac vinyl ester resin polymer chemistry. It utilizes a peroxide based curative for maximum chemical resistance, as well as flake fillers for reduced permeation. For chemical containment applications it is applied in two coats of 14-16 mils WFT per coat. A third coat may be applied where a thicker lining is desired. For spray applications or immersion service such as a tank lining, PENNCOAT 340 may be specified, which is applied by spray in two coats of 22-25 mils WFT per coat for a total lining thickness of 38-40 mils DFT. When the crack bridging advantages of a glass mat reinforcement are desired, the optional PENNCOAT 331***MR*** (*Mat Reinforced*) may be specified, which utilizes a 1 oz. chopped strand glass mat reinforcement in the primer layer. **Consult Corrosion Engineering specification CES-259 for complete installation details.**

AREAS OF USE

Concrete lining within its chemical limits for foot and light fork truck service, and chemical splash and spillage. For interior and exterior applications. Ideal as a secondary containment lining.

Immersion service as a tank lining within chemical and thermal limitations.

PENNCOAT 331 / 331MR is also suitable as an internal lining to protect ductwork, stacks, and associated air pollution control and flue gas conveying equipment from corrosive acids and fumes.

OUTSTANDING FEATURES

- Excellent resistance to acids, alkalis, and solvents.
- PENNCOAT 331 / 331MR is flake filled, resulting in significantly improved permeation ratings compared to non flake filled systems.
- PENNCOAT 331*MR* utilizes a chopped strand glass mat reinforcement in the primer layer to minimize crack transmission from the substrate.
- Installed easily by brush, roller or spray.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	PENNCOAT 331 / 331*MR*
Standard Colors	Grey. White is not stocked, but available upon special order.
Primer	Concrete: PENNTROWEL® Vinyl Ester Primer (CE-138) Steel: None is required for adhesion, but Vinyl Ester Primer is recommended to hold blast profile
24 hour tensile bond strength:	Sandblasted steel: 1500 psi Concrete: greater than the tensile strength of concrete
Maximum service temperature:	180°F in chemical immersion depending upon chemical environment. 350°F in flue gas service.
Viscosity (mixed material)	8300 - 8700 cps @ 68°F
VOC content / Solids by wt (mixed material)	0.15 lb/gal / 70%
Mix ratio - Resin : Hardener by volume	64:1
Abrasion Resistance - Taber	75 mg loss/1000 cycles with 1000 gram (CS-17) Wheel
Moisture permeability	0.0015 perm-inch (ASTM E96)

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

PRODUCT	CODE	PACKAGING	COVERAGE
331 Resin Grey 331 Resin Grey 331 Resin White 331 Resin White	21921 19578 22178 19577	4 x 1 gal cans/case 5 gal pail 4 x 1 gal cans/case 5 gal pail	1 x 4 gal unit = 1 case resin + 1 x 0.7 pint bottle CHP hardener. (Note: 1 bottle of CHP hardener is actually sufficient to harden 5 cans of resin) 1 x 5 gal unit = 1 x 5 gal pail Resin + 1 x 0.7 pint bottle CHP hardener. 100 - 110 SF/gal @ 14-16 mils WFT per coat will yield 75 - 85 SF/gal @ 11 mils DFT*. 2 coats required. *DFT coverage includes allowance for pail loss, curing reduction, and typical overage allowance.
CHP Hardener	19552	0.7 pint bottle	

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.