

**CE-264**

**09/13 Supersedes 10/00**

### **PENNCOAT<sup>®</sup> 401 LINING**

#### **DESCRIPTION**

PENNCOAT 401 is a two component room temperature cured silicon based polymeric lining. On concrete, it is applied to 20 - 25 mils, in two 10 -12.5 mil WFT (wet film thickness) coats. On steel it is installed in two coats at a recommended thickness of 14-16 mils WFT (2 x 7-9 mils coat). It offers the chemical and temperature resistance of inorganic silicon chemistry with the ease of application and cost effectiveness of conventional organic linings. PENNCOAT 401 is a unique thermosetting silicon polymer which cures with conventional epoxy chemistry yielding highly cross-linked polyether linkages. The absence of problematic hydroxyl, and ester groups makes PENNCOAT 401 resistant to a broad range of corrosive chemicals, including 98% sulfuric acid, and chlorinated solvents. PENNTROWEL<sup>®</sup> Epoxy Primer is recommended for concrete substrates. **Consult Corrosion Engineering specification [CES-264](#) for complete installation details.**

#### **AREAS OF USE**

PENNCOAT 401 is used as a lining for primary and secondary containment of moderately and highly corrosive exposures. It has particularly good resistance to chlorinated solvent chemistry.

PENNCOAT 401 can be used as a secondary containment lining to protect concrete pits, dikes, curbs, pads, structural steel members, and vessels from acids, alkalies, and solvents.

PENNCOAT 401 can be used as a primary lining in chemical process vessels where conventional epoxy and vinyl ester linings cannot address the chemical environment.

#### **OUTSTANDING FEATURES**

- Chemical resistance of silicon chemistry with application ease of epoxy chemistry.
- Ambient temperature cure. Easy to apply by brush, roll or spray.
- Service temperature range of -80° F to 200° F.

**TYPICAL PHYSICAL PROPERTIES**

PROPERTY	PENNCOAT 401
Color	Oyster white or grey
Density (mixed unit)	11.0 lbs/gal
VOC content (mixed unit)	0.85 lbs/gal.
Solids by weight	93%
Pot life (80° F and 50% relative humidity)	1.5 hrs
Water absorption (ASTM D570)	0.25%
Tensile strength (ASTM D638)	11,000 psi
Flexural strength (ASTM D790).	18,000 psi
Permeability - vapor transmission of water @ 194° F for 7 days	0.0000 gm/sq ft/in
Flash point (TCC)	53° F
Mix ratio - Resin:Hardener by volume	6.6:1
Lap shear strength (adhesion) (ASTM 1002)	2700 psi @ 75° F
Hardness	75 -78 Barcol

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

PRODUCT	CODE	PACKAGING	COVERAGE
PENNTROWEL Epoxy Primer	19676	4 x 1 gal units/case	600-800 SF/case (150 -200 SF/gal) @ 8 - 10 mil WFT on concrete
PENNCOAT 401 Resin - White	19583	1 x 4.4 gal pail	1 X 5 gal unit consists of 1 x 4.4 gal pail resin and 1 x 0.6 gal pail hardener.  On steel, coverage will be 900-1100 SF per pail (180-230 SF/gal) @ 7-9 mils WFT per coat. 2 coats recommended.  On concrete, a 5 gal unit will theoretically cover 665 - 800 SF@ 10-12 mils WFT (133 - 160 SF/gal). Coverage on concrete depends upon surface profile. A rough concrete substrate can reduce coverage to 90 square feet per gallon @ 12 mils WFT. 2 coats recommended.
PENNCOAT 401 Resin - Gray	26822	1 x 4.4 gal pail	
PENNCOAT 401 Hardener	19584	1 x 0.6 gal 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.



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