

CE-273M

11/12 Supersedes 11/06

PENNCOAT[®] 321 LINING

DESCRIPTION

PENNCOAT 321 is an 2 mm glass-flake filled lining based on epoxy novolac vinyl ester resin chemistry. It is trowel applied in 2 x 1 mm WFT coats. **Consult Corrosion Engineering specification [CES-342](#) for complete installation details.**

AREAS OF USE

PENNCOAT 321 can be used as a chemical resistant lining for immersion service on concrete or steel. It can be used as a lining for vessels, sumps, pits, trenches, walls and floors. PENNCOAT 321 is a durable lining for immersion service or flue gas handling equipment such as duct work, scrubbers or stacks. In flue gas handling equipment, it can be used as a stand-alone lining, or also as a membrane under brick or refractory linings when its service temperature or abrasion resistance limits are exceeded. It offers outstanding chemical resistance for severe environments, including oxidizing acids. PENNCOAT 321 is resistant to a wide range of acids, alkalis, solvents, salts and other chemicals. Contact your Corrosion Engineering representative for specific recommendations.

PENNCOAT 321 lining will protect concrete and steel in immersion up to 77°C, and splash and spill environments up to 120°C. The glass flakes and 2 mm thickness offer better durability in immersion conditions, which may be erosive or abrasive to thinner unfilled linings.

OUTSTANDING FEATURES

- 2 mm glass-flake linings offer superior mechanical and physical durability over thin 0.75 - 1 mm coatings.
- Resistant to a wide range of acids, alkalis, solvents and other corrosive chemicals. Will resist up to 70% sulfuric, as well as nitric, phosphoric and acetic acids.
- Low permeability.
- Excellent resistance to oxidizing chemicals such as chlorine dioxide and bleaching solutions.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	PENNCOAT 321 LINING
Color	Basecoat - white, topcoat - grey
Primer	PENNTROWEL® Vinyl Ester Primer is used to prime concrete prior to application of PENNCOAT 321. For steel substrates, PENNCOAT 321 may be applied direct to sandblasted steel, but a primer is recommended to hold the blasted profile.
Mix Ratio of Resin to Hardener	1.5 - 2.25%
Density	1.14
Work Life at 21°C	1 to 1½ hours
Set Time at 21°C	1¼ to 1¾ hours
Barcol hardness	>90
Tensile Strength	18.9 - 22.0 Mpa at 7 days
Moisture Permeability	0.002 perm-Inch
Maximum Service Temperature	Continuous Immersion: 76°C Splash and Spill: 104°C Flue Gas Environment: 121°C

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

PRODUCT	CODE	PACKAGING	COVERAGE
PENNTROWEL® VE Primer Resin	50101 50106	29 Kg Pail 4 Kg Can	Consult data sheet CE-138 M
Penncoat® 321 Basecoat Resin - White	--	29 Kg pail	2.3 kg/sm @ 2 mm.
PENNCOAT 321 Topcoat Resin - Gray	50110	29 Kg pail	
CHP Hardener	50108 50109	200 cc Bottle 400 gram 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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