ErgonArmor
TECHNICAL COATING SOLUTIONS™

PRODUCT INFORMATION

CE-293
10/18 Supersedes 09/13

PENNCHEM™ 97 MEMBRANE

DESCRIPTION

PENNCHEM 97 Membrane is a two component chemical resistant liquid applied elastomeric 100% urethane membrane installed onto steel or concrete substrates. It is ambient temperature cured, and is impervious to permeation by liquids. PENNCHEM 97 can be used as a stand alone lining within its limitations in less demanding service environments, or as a membrane barrier under chemical resistant brick and tile linings. It is field mixed to yield a thixotropic consistency ideally suited for trowel application onto a prepared substrate, whether the surface orientation be horizontal, vertical, or overhead. Its relatively fast initial cure makes it very suitable for use in shutdown applications when time is of the essence. **For complete installation details, consult Corrosion Engineering installation specification CES-326 and CES-334.**

AREAS OF USE

PENNCHEM 97 Membrane is suitable for use in conjunction with brick and tile linings used to line pulp and paper process vessels such as bleach towers, ClO2 towers, or other vessels where resistance to bleaching and/or sodium hypochlorite environments is required.

PENNCHEM 97 Membrane may also be used in combination with chemical-resistant masonry for providing protection to concrete floors, trenches/sumps, and pump pads subject to the splash and spillage of chemicals, leaking pumps, wash downs, etc.

PENNCHEM 97 Membrane may also be used as a waterproofing and crack bridging membrane to refurbish cracked concrete substrates. After application of a nominal 60 mil thickness of PENNCHEM 97 Membrane, a 12 mesh quartz may be broadcast into the membrane for wear and slip resistance, and subsequently topcoated with either PENNCOAT™ 227 Lining (CE-285) or PENNCOAT 331 Lining (CE-259) to provide chemical resistance as required.

OUTSTANDING FEATURES

- Remains elastomeric through a temperature range from a low of -40°F (-40°C) to a high of +160°F (71°C). Due to its elastomeric property, it can accommodate thermal and mechanical strains that may occur in the concrete or metal substrates to which it is applied.
- Cold applied for ease of installation using flat trowels. Normally an overall thickness of 100 mils (2.5 mm), applied in two coats, provides a satisfactory lining.
- The cured membrane may be holiday (spark) tested if applied over steel substrates.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	**PENNCHEM 97 Membrane**
Temperature resistance	160°F (71°C)
Elongation of cured membrane (ASTM D-412)	125%
Hardness of cured membrane	50 Shore D
Flash point Part A: Part B:	440°F (227°C) Pensky Marten Closed Cup 390°F (199°C) Pensky Marten Closed Cup
Density of mixed membrane	11.9 lbs/gal
% Solids(by Wt.) of mixed membrane	100%
Pot Life of mixed membrane@ 70°F	45 – 60 minutes
Tack free time @ 70°F	5 - 6 hours
Color	Tan
Resistance to acids and alkalies	Good
Recommended primers	Concrete: Not required for adhesion, but PENNTROWEL™ Epoxy Primer (CE-139) minimizes outgassing from concrete substrates, and is suggested. Steel: None required, but PENNGUARD™ Wash Primer (CE-227) will minimize rerusting of freshly sandblasted substrates.

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

PRODUCT	**CODE**	**PACKAGING**	**COVERAGE**
PENNCHEM 97 Membrane - Kit	19641	3.2 gal (38 lb) unit	40 SF/unit @ 125 mils WFT 50 SF/unit @ 100 mils WFT Coverage on rough surfaces such as concrete will vary with surface texture

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.