Pennchem™ 97 Membrane

SELECTION & SPECIFICATION DATA

Type

Urethane polymer membrane

Description

Pennchem 97 Membrane is a 2-component trowelable liquid applied elastomeric urethane membrane.

Uses

Chemical resistant membrane for protecting concrete and steel in the following applications:

- Under chemical resistant masonry
- Under polymer concrete
- Under brick linings in bleach towers
- Under brick linings in ClO_2 towers
- Waterproofing
- Crack-bridging base coat
- Secondary containment lining

Features

- Good resistance to acids and alkalis
- Flexible from -40°F (-40°C) to 160°F (71°C)
- Crack-bridging
- Easy to mix and trowel apply
- High bond strength
- Spark testable on steel substrates

Limitations

Not for use beyond its chemical resistance or thermal capabilities. Consult ErgonArmor with specific questions.

INSTALLATION GUIDANCE

Reference Specifications

CES-326 and CES-334 Installation of Pennchem 97 Membrane on steel and concrete.

Installation Conditions

Pennchem 97 Membrane is formulated for ideal handling at 70°F (21°C). Materials and substrate should be acclimated to the air temperature prior to installation, and the air temperature should be between 50°F (10°C) and 90°F (32°C) during installation and cure.

Preparation of concrete in accordance with SSPC- SP13 is suggested. Concrete should be clean and dry with a profile similar to a 100-150 grit sandpaper. Primer on concrete is not required for adhesion but the use of Penntrowel™ Epoxy Primer or Novocoat™ SC1100 Primer/Sealer is suggested to minimize outgassing from concrete substrates. Preparation of steel in accordance with SSPC-SP 10 is suggested. Primer is not required on steel but the use of Pennguard™ HP Epoxy Primer is suggested to minimize re-rusting of freshly blasted substrates.

Ratio

1.9 gallons resin: 499 grams hardener. Mix full units only.

Mixing

Do not mix partial kits. Open the pail and remove the bottle of hardener and divider. Remove and discard surface skin on resin if present. Mix the resin to loosen it. Open the bottle of hardener and pour it slowly into the resin. Mix very thoroughly, moving the mix blade up, down and around the sides of the pail until a uniform color is achieved and the hardener is fully dispersed.

Application

Apply Membrane onto prepared substrate with a flat trowel to achieve desired thickness. Apply in two passes, wet on wet, to minimize pinholes. If first coat has dried, abrade the surface to roughen it prior to applying the second coat.

Work Life

45-60 minutes at 70°F (21°C)

Work life is shorter at higher temperatures and longer at cooler temperatures.

Cleanup

Xylene or MEK

CURE TIME

Substrate	Initial Set	Full Cure
70°F (21°C)	5-6 hours	36 hours

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PACKAGING, ESTIMATING & HANDLING

Product	Code	Packaging
Pennchem 97 Membrane Kit	19687	2 gallon (7.5 L) kit
Pennchem 97 Membrane Part A	19688	1.9 gallon (7.2 L) pail
Pennchem 97 Membrane Part B	19689	499 gm bottle

A 2 gallon unit consists of a 1.9 gallon pail of Part A resin and a 499 gm bottle of Part B hardener. Order Part A and part B separately for U.S. export.

Theoretical Coverage

25.7 square feet per unit at 1/8-inch (3.2 mm) WFT
32 square feet per unit at 100 mils (2.54 mm) WFT

Storage & Shelf Life

Maintain products in original packaging and sealed until ready for use. Estimated shelf life is 24 months when stored in a dry area at 70°F (21°C). Actual shelf life may vary with storage conditions.

If there is any question with respect to the quality of the components, check reactivity prior to use. For assistance consult with ErgonArmor.

SAFETY

Safety

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 safety data sheets before using.

Ventilation

Provide thorough air circulation during and after application until the material has cured when used in enclosed areas.

TYPICAL PHYSICAL PROPERTIES

Property	Typical Value
Color	Beige
Density, ASTM C138	11.9 lb/gallon (1,426 kg/m^3)
Shore D Hardness	50
Solids, mixed material	100%
Elongation, ASTM D412	125%
Maximum service temperature	160°F (71°C)

Rev 03/2021