

## SELECTION & SPECIFICATION DATA

<b>Type</b>	Urethane polymer membrane
<b>Description</b>	Pennchem 97 Membrane is a 2-component trowelable liquid applied elastomeric urethane membrane.
<b>Uses</b>	<p>Chemical resistant membrane for protecting concrete and steel in the following applications:</p> <ul style="list-style-type: none"> <li>• Under chemical resistant masonry</li> <li>• Under polymer concrete</li> <li>• Under brick linings in bleach towers</li> <li>• Under brick linings in ClO<sub>2</sub> towers</li> <li>• Pulp washers and seal boxes</li> <li>• Waterproofing</li> <li>• Crack-bridging base coat</li> <li>• Secondary containment lining</li> </ul>
<b>Features</b>	<ul style="list-style-type: none"> <li>• Good resistance to acids and alkalis</li> <li>• Flexible from -40°F (-40°C) to 160°F (71°C)</li> <li>• Crack-bridging</li> <li>• Easy to mix and trowel apply</li> <li>• High bond strength</li> <li>• Spark testable on steel substrates</li> </ul>
<b>Limitations</b>	Not for use beyond its chemical resistance or thermal capabilities. Consult ErgonArmor with specific questions.

## INSTALLATION GUIDANCE

<b>Reference Specification</b>	CES-335 Pennchem 97 Membrane Installation Specification.
<b>Installation Conditions</b>	<p>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.</p> <p>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 Pentrowel™ 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 Penguard™ HP Epoxy Primer is suggested to minimize re-rusting of freshly blasted substrates.</p>
<b>Ratio</b>	1.9 gallons resin: 499 grams hardener. Mix full units only.
<b>Mixing</b>	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.
<b>Application</b>	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.
<b>Work Life</b>	<p>45-60 minutes at 70°F (21°C)</p> <p>Work life is shorter at higher temperatures and longer at cooler temperatures.</p>
<b>Cleanup</b>	Xylene or MEK

## CURE TIME

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

**PACKAGING, ESTIMATING & HANDLING**

Product	Code	Packaging
Pennchem 97 Membrane Kit Tan	19687	2-gallon (7.5 L) kit
Pennchem 97 Membrane Kit White	19700	2-gallon (7.5 L) kit
Pennchem 97 Membrane Part A Tan	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	Tan or white
Density, ASTM C138	11.9 lb/gallon (1,426 kg/m <sup>3</sup> )
Hardness, ASTM D 2240 type A 73°F (23°C)	48
Solids, mixed material	100%
Flexibility, ASTM D522 method B, 73°F (23°C) 1/16" (750 µm) mandrel	Pass
Elongation, ASTM D412	>100%
Elongation, ASTM D412	>200 psi (1.37 MPa)
Water absorption, ASTM D570 7-day 73°F (23°C)	0.21%
Film shrinkage %, ASTM D 2240 7-day 73°F (23°C)	0%
Service temperature, stand-alone	185°F (85°C)
Service temperature, behind brick	240°F (115°C)

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**TERMS AND CONDITIONS OF SALE**

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