

# Pennchem™ Novolac Brick Mortar

## SELECTION & SPECIFICATION DATA

<b>Type</b>	High functional novolac epoxy brick mortar
<b>Description</b>	Pennchem Novolac Brick Mortar is a 3-component mortar used to bond and bed acid brick in chemical environments.
<b>Uses</b>	<p>Bond and bed chemical resistant brick, granite, or abrasion resistant ceramics, including high alumina brick and dense tiles, used in:</p> <ul style="list-style-type: none"> <li>• Process vessels</li> <li>• Flooring</li> <li>• Trenches</li> <li>• Sumps</li> <li>• Secondary containment</li> </ul>
<b>Features</b>	<ul style="list-style-type: none"> <li>• Excellent adhesion to brick and tile surfaces</li> <li>• Broad resistance to acids, alkalis and solvents</li> <li>• Good abrasion and wear resistance</li> <li>• Creamy, non-slumping consistency</li> <li>• Nonporous, hard</li> <li>• Low shrinkage</li> </ul>
<b>Limitations</b>	Not for use beyond its chemical resistance or thermal capabilities. Consult ErgonArmor with specific questions.

## INSTALLATION GUIDANCE

<b>Reference Specifications</b>	CES-358 ErgonArmor Specification for Brick Mortar Mixing						
<b>Installation Conditions</b>	<p>Pennchem Novolac Brick Mortar is formulated for ideal handling at 70°F (21°C). For temperatures between 35°F (2°C) and 50°F (10°C), substitute Epoxy Cold Room Hardener for 6711 Hardener to speed cure.</p>						
<b>Ratio</b>	<p>Above 50°F (10°C), 1 part resin: 0.51 parts 6711 Hardener: 3.5 parts filler by weight.</p> <p>Below 50°F (10°C), 1 part resin: 0.16 parts Epoxy Cold Room Hardener: 2.7 parts filler by weight.</p> <p>Filler loading may be adjusted slightly to suit individual bricklayer handling preferences.</p>						
<b>Mixing</b>	Pour resin into clean, dry mixing vessel. Slowly add hardener to resin at specified ratio and mix until thoroughly blended. Slowly add filler at suggested ratio and mix until fully wetted.						
<b>Work Life</b>	<p>60 - 80 minutes at 50°F (10°C)          25 - 35 minutes at 70°F (21°C)          10 - 20 minutes at 90°F (32°C)</p> <p>Work life is shorter at higher temperatures. A larger volume of mixed material will have a shorter work life than a smaller volume.</p>						
<b>Cleanup</b>	MEK						
<b><u>CURE TIME</u></b>							
<b>Temperature</b>	<table border="0" style="width: 100%;"> <thead> <tr> <th style="text-align: left;"><b>Initial Set</b></th> <th style="text-align: left;"><b>Full Cure</b></th> </tr> </thead> <tbody> <tr> <td>70°F (21°C)</td> <td>2 - 3 hours</td> </tr> <tr> <td></td> <td>72 hours</td> </tr> </tbody> </table>	<b>Initial Set</b>	<b>Full Cure</b>	70°F (21°C)	2 - 3 hours		72 hours
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<b><u>SAFETY</u></b>							
<b>Safety</b>	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.						
<b>Ventilation</b>	Provide thorough air circulation during and after application until the material has cured when used in enclosed areas.						

**PACKAGING, ESTIMATING & HANDLING**

Product	Code	Packaging
6710 Resin	19591	4 x 7.8 lb (0.8 gallon) can case
6711 Hardener	19593	4 x 4.0 lb (0.5 gallon) can case
Epoxy Cold Room Hardener	29447	20 lb (2.5 gal) jerrycan
Penntrowel™ L/F Filler - Silica	19642	55 lb (25 kg) bag

A 1.38 cubic foot (157 lb or 71.2 kg) unit consists of 1 x 31.2 lb (14.2 kg) case of resin, 1 x 16 lb (7.3 kg) case of hardener and 2 x 55 lb (25 kg) bags of filler.

When substituting Epoxy Cold Room Hardener, a 1.18 cubic foot (134 lb) unit consists of 1 x 31.2 lb (14.2 kg) case of resin, 5 lb (2.3 kg) of hardener and 98 lb of filler.

**Theoretical Coverage**

Consumption will vary based on brick size and joint width. Consult estimating guide CES-145.

**Storage & Shelf Life**

Maintain products in original packaging and sealed until ready for use. Estimated resin and hardener shelf life is 12 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.

**TYPICAL PHYSICAL PROPERTIES**

Property	Typical Value
Color	Gray
Density, ASTM C138	114 lb/ft <sup>3</sup> (1,826 kg/m <sup>3</sup> )
Compressive strength, ASTM C579, 7-day	>13,000 psi (90 MPa)
Tensile strength, ASTM C307, 7-day	>2,500 psi (17.2 MPa)
Flexural strength, ASTM C580	>4,000 psi (27.6 MPa)
Absorption, ASTM C413	0.06%
Bond strength to brick, pull blocks	Exceeds strength of brick
Maximum service temperature	210°F (99°C) splash & spill 275°F (135°C) flue gas

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