

# Pennchem™ Novolac Brick Mortar

## SELECTION & SPECIFICATION DATA

<b>Type</b>	High functional novolac epoxy brick mortar
<b>Description</b>	<p>Pennchem Novolac Brick Mortar is a 3-component mortar used to bond and bed acid brick in harsh chemical environments.</p> <p>Use L/F Filler Carbon filler where conductive flooring may be required or in chemical exposures involving strong caustics or hydrofluoric acid.</p>
<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> <li>• Conductive side jointing when using Carbon filler</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>	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.	
<b>Ratio</b>	<p>Above 50°F (10°C): 3.5 parts filler by weight: 1 part resin: 0.51 parts 6711 Hardener (silica grade)</p> <p>Below 50°F (10°C): 2.7 parts filler by weight: 1 part resin: 0.16 parts Epoxy Cold Room Hardener (silica grade)</p> <p>Carbon grade mix ratio is 2.3:1.0:0.51 (Filler:Resin:Hardener). Consult ErgonArmor if using Carbon filler below 50°F (10°C).</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>	<b>Initial Set</b>	<b>Full Cure</b>
70°F (21°C)	2 - 3 hours	72 hours
<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
L/F Filler Silica	19642	55 lb (25 kg) bag
L/F Filler Carbon	29446	36 lb (16.3 kg) bag

A 1.38 cubic foot (39.4 l) weighs 157 lb (71.2 kg) unit and 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.

Carbon grade: A 1.14 cubic foot weighs 119 lb (54 kg) and 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 36 lb (16.3 kg) bags of filler.

Filler loading may be varied slightly to suit bricklayer preference.

### **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 18-24 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.

## TYPICAL PHYSICAL PROPERTIES

Property	Typical Value
Color	Gray, carbon grade is black
Wet density, silica grade ASTM C138	114 lb/ft <sup>3</sup> (1,826 kg/m <sup>3</sup> )
Wet density, carbon grade ASTM C138	101 lb/ft <sup>3</sup> (1,1618 kg/m <sup>3</sup> )
Compressive strength, ASTM C579, 7-day	>11,000 psi (75.8 MPa)
Tensile strength, ASTM C307, 7-day	>2,000 psi (13.8 MPa)
Flexural strength, ASTM C580	>3,000 psi (20.7 MPa)
Absorption, ASTM C413	<0.1%
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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### **TERMS AND CONDITIONS OF SALE**

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