



## PRODUCT INFORMATION

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**CE-277**  
**04/20 Supersedes 10/18**

### ***PENNCHEM™ NOVOLAC CONCRETE***

#### **DESCRIPTION**

PENNCHEM Novolac Concrete is a high functional novolac epoxy resin based thermosetting polymer concrete suitable for cast-in-place and precast applications. It is well suited for one-step construction or restoration of flooring, pads, piers, footings, foundations, trenches and sumps in aggressive chemical, thermal or mechanical service. In certain environments, PENNCHEM Novolac Concrete can serve as a time-saving alternative to acid resistant brick linings. For complete installation instructions, consult ErgonArmor installation specification CES-360.

#### **AREAS OF USE**

Restoration, protection, and construction of concrete

- Floors, pads, piers, footings, foundations, curbing
- Trenches and sumps
- Areas exposed to severe wear-and-tear, thermal shock or chemicals
- In place of acid resistant brick lining

#### **OUTSTANDING FEATURES**

- Resistant to a wide range of aggressive acids, alkalis and solvents
- Thermal shock resistant
- Abrasion and impact resistant
- Low porosity and absorption
- High compressive strength
- 100% reactive - contains no VOCs
- Low shrinkage
- Non-combustible when cured
- Easy to place and finish
- Can be sloped for positive drainage

**TYPICAL PHYSICAL PROPERTIES**

PROPERTY	PENNCHEM Novolac Concrete
Color	Concrete gray
Working life	45 - 60 minutes at 70°F
Density (ASTM C138)	135 lb/ft <sup>3</sup> (2.1 kg/L)
Compressive strength, 7-day (ASTM C579)	>12,500 psi (86 MPa)
Tensile strength, 28-day (ASTM C190)	>1,500 psi (10.3 MPa)
Absorption, 48-hour (ASTM C413)	0.05 %
Linear shrinkage (ASTM C531)	0.04 %
Coefficient of thermal expansion, 75°F-210°F (ASTM C531)	1.95 x 10 <sup>-5</sup> in./in./°F
Modulus of elasticity, 28-day (ASTM C580)	1.84 x 10 <sup>6</sup> psi
Mix ratio by weight	8.6 filler: 1.0 mixed resin and hardener
Maximum service temperature	200°F

**ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE**

PRODUCT	CODE	PACKAGING	YIELD*
6710 Resin	19592	40 lb (4 gal) pail	A 586 lb (4.3 cu ft) unit consists of 1 x 40 lb pail resin, 1 x 21 lb can hardener, and 7 x 75 lb bags of filler. Packages may be split for partial pours by maintaining similar ratios.  The above mix will yield a resinous concrete with a closed surface. Use of vibration during placement will allow addition of 1 additional bag of filler to increase yield to 661 lbs (4.86 cu ft). Reduce filler loading by one bag for a more fluid mix.  As a castable topping, allow 17 mixed lbs per sf at 1.5 in. thickness and 22.67 mixed lbs per sf at 2.0 in. thickness.
6711 Hardener	19595	21 lb (2.5 gal) can	
Polymer Concrete Filler	19670	75 lb bag	

\*Yield is a theoretical calculation and does not allow for surface irregularity, pail loss and normal overage allowances.

**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 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. For all Terms and Conditions of Sale see [ergonarmor.com](http://ergonarmor.com).



**ErgonArmor**  
 TECHNICAL COATING SOLUTIONS™

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