

SELECTION & SPECIFICATION DATA

Type	Vinyl ester brick mortar
Description	Pennchem Mortar is a 2-component high functional vinyl ester brick mortar. Pennchem Mortar Initiator may be added to speed cure at cool temperatures.
Uses	Pennchem Mortar is used to butter chemical resistant ceramics such as acid brick and tile, including structural glazed tile used in pulp and paper processing facilities.
Features	• Easy workability • Non-slumping consistency • Rapid strength gain • Resistant to oxidizing chemicals • Resistant to bleaches such as chlorine and chlorine dioxide
Limitations	• Not for use beyond its chemical resistance or thermal capabilities. Consult ErgonArmor with specific questions.

INSTALLATION GUIDANCE

Reference Specifications	CES-358	ErgonArmor Specification for Brick Mortar Mixing
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Installation Conditions	Pennchem Mortar is formulated for ideal handling at 70°F (21°C). For temperatures between 35°F (2°C) and 50°F (10°C), add Pennchem Mortar Initiator to accelerate cure.
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Ratio	1.0 part resin: 3.75-4.0 parts powder by weight
	Ratio may be adjusted slightly to suit individual brick layer or tile setter handling preferences.

	1.75 fl. oz. initiator: 40 lb resin, as conditions require
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Mixing	Pour measured quantity of resin into clean, dry mixing vessel. Slowly add measured quantity of powder to resin and mix until thoroughly wetted. When adding Pennchem Mortar Initiator, pour measured amount of Initiator directly into the pail of resin and stir thoroughly before combining with powder as described above.
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Work Life	Pennchem Mortar without Initiator: 40-60 minutes at 50°F (10°C) 30-40 minutes at 70°F (21°C) 10-20 minutes at 90°F (32°C) Consult ErgonArmor for information on the effect of Pennchem Mortar Initiator on set time. A larger volume of mixed material will have a shorter work life than a smaller volume.
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Cleanup	MEK
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CURE TIME

Temperature	Initial Set	Full Cure
70°F (21°C)	40-60 minutes	36 hours

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

Product	Code	Packaging
Pennchem Resin	26824	40 lb (18.1 kg) pail
Pennchem Powder	26823	50 lb (22.6 kg) bag
Pennchem Mortar Initiator	19524	32 fl. oz. bottle

A 190 lb unit consists of 1 x 40 lb pail of resin and 3 x 50 lb bags of powder. Dosage rate for Pennchem Mortar Initiator when added to resin is 1.75 fl. oz of initiator per pail of resin.

Theoretical Coverage

Consumption will vary based on ceramic or masonry unit size and joint width.

Storage & Shelf Life

Maintain products in original packaging and sealed until ready for use. Estimated shelf life of resin and powder is 6 months when stored in a dry area at 70°F (21°C). Store resin between 55°F (13°C) and 65°F (18°C) for maximum shelf life. 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	White
Density, ASTM C138	116 lb/ft ³ (1,858 kg/m ³)
Compressive strength, ASTM C579	>12,000 psi (83 MPa)
Tensile strength, ASTM C190	>1,600 psi (11 MPa)
Absorption, ASTM C413	0.2%
Bond strength to brick, pull blocks	>275 psi (1.9 MPa)
Maximum service temperature	225°F (107°C)

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