

420

420 PT EPOXY GROUT SYSTEM

FORMULATED AND LABELED FOR PROFESSIONAL USE ONLY
NOT FOR SALE TO OR USE BY THE GENERAL PUBLIC



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PRODUCT DATA

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Formulated to comply with 926-14 Specific Requirements for Type Q Compounds

DESCRIPTION

E-Bond 420 Epoxy Grout system is a pre-proportioned, 3-component, 100% solids, moisture-tolerant, non-shrink epoxy. This product is characterized by high bearing surface, low creep and excellent flowability that produces a low exothermic reaction.

WHERE TO USE

- To protect the anchorages of post-tensioning tendons or bars on segmental bridge projects
- Seating of base plates • Grouting under equipment where easy access is available
- Industrial areas requiring maximum bond to foundation with maximum bearing • Quick re-grouts and start ups

FEATURES

- Ready to mix, pre-proportioned kit
- Excellent flowability
- Long working time
- 100% solids, no solvents
- Fast strength gain
- High compressive strength
- Moisture Tolerant
- Zero VOC

BENEFITS

- Fast return to service
- Minimal shrinkage/expansion
- Impermeable and resistant to chemicals, corrosion, impact and stress
- High vibration resistance
- Excellent bond, machinery to foundation
- High effective bearing area
- Low heat development for large pours
- Fully Reactive, No low boiling constituents

PHYSICAL PROPERTIES

Property	Test Method	Results
Gel Time	(ASTM D-2471)	150 minutes
Tensile Properties 7 day	(ASTM C-307)	3,500-4,000 psi (24-28 MPa)
Flexural Properties 7 day @ 77F (25C)	(ASTM-C580)	> 5,000 psi (35 MPa)
Thermal Compatibility 5 cycles	(ASTM C-884) (with aggregate)	passed
Peak Exotherm 12 in. x12 in. x 3 in. Specimen	(ASTM D-2471)	140°F (60°C)
Linear Shrinkage 7 day	(ASTM C-531)	<.01%
Flowability and Bearing Area	(ASTM C-1339)	>97%
Coefficient of Thermal Expansion 74F to 210F (23C to 99C)	(ASTM C-531)	< 30 x 10 ⁻⁷ in/in/F
Modulus of Elasticity 7 day @ 77F (25C)	(ASTM C-580)	1,700,000 – 1,800,000 psi (11724-12414 MPa)
Compressive Properties 7 day @ 73F (23C)	(ASTM-C-579B) Test Method B	14,250 psi (99 MPa)
Water Absorption 7 days	(ASTM-C-413)	.4%
Heat Deflection Temp	(ASTM D-648)	152° F (67°C)
Slant Shear 7 days	(ASTM C-882)	>5,000 psi

For Best Performance

- Precondition the components to 70°F (23°C) to 80°F (27°C) for 24 hrs before use.
- Minimum ambient, surface, aggregate and epoxy temperatures should be 50°F (10°C) and rising at the time of application.
- Store at 55°F to 90°F (15°C to 32°C).
- Protect from moisture.
- Protect from freezing.
- Do not add solvents or water to epoxy material.
- Do not alter or change the recommended proportions when blending the components.

SURFACE PREPARATION

Surface Preparation: Surface Preparation is everything for the long term performance of the E-Bond 420 Epoxy Grout System.

Substrate and other contact areas must be clean, sound and free of standing water.

CONCRETE: Remove weak, contaminated deteriorated concrete, asphalt materials, oils, dirt, rubber, curing compounds, paint, carbonation, laitance, and other potentially detrimental materials by shot-blasting, bush hammering or other suitable mechanical means.

Steel - Steel surfaces should be cleaned and prepared by sandblasting to conform to SSPC-SP10 Specification with a 4 mil (0.1mm) minimum anchor profile. If flash rust appears, the surface must be re-blasted to obtain minimum anchor profile

If work cannot be completed immediately after initial surface preparation it is important to blow, sweep or power-sweep the surface area to be treated. Blow loose material from visible cracks using oil free, high pressure air blast

MIXING

For best results, prior to mixing condition the components to 70° - 85°F (21° - 29°C).

Mechanical mixing of the three components: Remove all contents from 7 gallon pail. Pour component B (Hardener) into 7 gallon pail followed by component A (Resin). A cage or propeller-type mixing paddle driven by a low speed electric or air-powered drill is recommended for mixing. Mix both A & B components to a uniform mix (approx. 2-3 minutes).. Keep the paddle below the surface material to avoid entrapment of air. Open bag for component C (Sand) and slowly pour sand into Admixed epoxy. Continue mixing all components. Proper mixing should take another 3-5 minutes. Thorough mixing of all components is important to obtain optimum results.

APPLICATION

Form Preparation: In order to prevent leakage or seepage, completely seal all forms. Apply polyethylene film or wax to all forms to prevent adhesion of the grout. Prepare form work to maintain a 2 in. (50 mm) liquid head to facilitate placement. A grout box that can be attached to the form will enhance the grout flowability. Anchor bolts within the pour area should be wrapped with neoprene foam rubber (or similar) to prevent grout from adhering to the bolts. The use of expansion joints is recommended on large pours to minimize the potential for cracking in the epoxy grout.

Grouting Base Plates: Pour grout through a funnel or directly if space permits to allow flow under the base plate. Pour the mixed grout into the prepared forms from one side only to eliminate air entrapment. Base plate should have vent holes around periphery to prevent air pockets from developing. Maintain the liquid head to ensure intimate contact with the base plate. Place sufficient epoxy adhesive

grout in the forms to rise slightly above the underside of the base plate. Grout depth of 1 in. (25 mm) minimum required and maximum of 6 in (152 mm). If multiple pours are needed apply additional layer while the proceeding lift is still tacky. Pour sufficient quantity of Grout to allow the level to rise slightly higher than the underside of the base plate.

Post-tensioning tendons or bars on segmental bridge projects: Pour the mixed epoxy grout into the prepared forms or through a funnel. Pour-back box should have vent holes around periphery to prevent air pockets from developing. Maintain the liquid head to ensure intimate contact with the pour-back box. Plungers may be used to ease placement.

Proper application is the responsibility of the user. Field visits by E-Bond personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite

PACKAGING

½ cubic foot unit

Part A in a gallon plastic bucket

Part B in a ¼ gallon plastic "F" Style can

50 lbs part C

Overpacked in a 7 gallon pail plastic mixing pail

CLEAN-UP: Ventilate area. Confine spill. Collect with absorbent material. Dispose of in accordance with current, applicable local, state, and federal regulations. Uncured material can be removed with approved solvent. Cured material can only be removed mechanically. Clean tools and equipment with xylene immediately after using. Wash hands and skin with soap or Industrial hand cleaner, not with solvent. Cured material must be removed mechanically.

VOC Content:

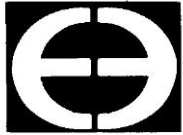
0 lbs/gal or 0 g/L, less water and exempt solvents

CAUTION - For professional use only; not for sale to or use by the general public. E-Bond's epoxies contain alkaline amines. Strong sensitizer; MAY CAUSE SKIN SENSITIZATION or allergic response ranging from a mild wheezing to a severe asthmatic type attack. Avoid contact with skin or eyes. IN CASE OF CONTACT immediately wash skin with soap and water. Flush eyes with water and obtain medical attention. Wear protective clothing, goggles, and barrier cream on all exposed skin.

LIMITED WARRANTY NOTICE: E-BOND EPOXIES, INC warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, if used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond our control. The purchaser must examine the product when received and promptly notify E-BOND EPOXIES, INC in writing of any nonconformity before the product is used and no later than 30 days after such non-conformity is first discovered. If E-BOND, in its sole discretion, determines that the product breached the above warranty, it will, in its sole discretion, replace the non-conforming product, refund the purchase price or issue a credit in the amount of the purchase price. This is the sole and exclusive remedy for breach of this warranty.

The information in this data sheet supersedes all other sales information received by the customer during the sales process. THE FOREGOING WARRANTY SHALL BE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND ALL OTHER WARRANTIES OTHERWISE ARISING BY OPERATION OF LAW, COURSE OF DEALING, CUSTOM, TRADE OR OTHERWISE.

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