



Epoxy Systems' Product #21

Pumpable Epoxy Mortar/Concrete

DESCRIPTION: Epoxy Systems' Product #21 Pumpable Epoxy Mortar is a moisture insensitive, two-component, 100% solids epoxy resin. This material is specifically designed for use in marine environments, but can be used in wet or dry strippable form applications. Product #21 can be pumped or poured into the void created between the existing structure and the Epoxy Systems' Corrosion Free Jacket. Dewatering is not required.

ADVANTAGES: Epoxy Systems' Product #21 Pumpable Epoxy Mortar will bond solidly to wet or dry surfaces made from fiberglass, concrete, steel, timber, or aluminum. Exceptional flow and long pot life for easy pumping through long pump lines. Product #21 has a convenient 2:1 mix ratio by volume, high physical strengths and high impact resistance.

PHYSICAL PROPERTIES:

Compressive Strength ASTM C 579 Method B	1 day – 5,500 psi (37.9 MPa)
	3 days - 8,000 psi (55.1 MPa)
	7 days – 10,000 psi 68.9 (MPa)
Density	±115 lbs. per cubic foot (1.85 Kilo per liter)
Flexural Strength (ASTM C293)	7 days – 3,500 psi (24.1 MPa)
Tensile Strength (ASTM C 307)	7 days – 1,300 psi (8.9 MPa)
Pot Life @ 70° F	1 hour (approximately)
Tensile Bond Strength	345 psi (2.4 MPa)
Shrinkage ASTM C-827)	- 0.02%
Absorption (ASTM C413)	0.35%

SURFACE PREPARATION: For best results, areas to receive the **Product #21 Pumpable Mortar** should be free of laitance, grease, oil or other contaminants that would inhibit bond. Sandblasting, water blasting, or wire brushing is recommended.

MIXING: Combine two (2) parts by volume of A Component with one (1) part by volume of B Component in the quantity desired and mix with a low speed drill (300 - 600 RPM) and Epoxy Systems' Mixing Paddle for three (3) minutes. Add 2-55 lb. Bags of the C Component. Mix until uniform. Scrape the sides and bottom to ensure thorough mixing. Pump or pour immediately after mixing. If the consistency of the mixed material is too thin, more C Component can be added with no loss of physical properties. If greater flow is required use less filler.

APPLICATION: Pump or pour Product #21 into wet or dry annular void between the Epoxy Systems Inert Corrosion Free Jacket and the existing structure. Product #21 is easily pumped with a Moyno 2J4 Auger Grout Pump with a 2 inch hose and 50 ft. Camlock Reinforced Grout Hose. Less C Component can be used to increase the flowability when longer pump lengths are required.

YIELD: One unit consists of 2 gallons of A Component and one gallon of B Component, and 2 each 55 lb bags of C Component. This will yield approximately 2,000 cubic inches (32.77 Liters) of grout.

LIMITATIONS: Product #21 Pumpable Mortar should not be used in a mortar form when ambient temperature is below 40° F. Lower temperatures increase set time and reduce flowability. Friction from pumping can accelerate setting time.

CAUTION: WARNING! A Component contains epoxy resin. **DANGER!** B Component contains alkaline amines; strong sensitizer. May cause skin sensitization or other allergic responses. Avoid inhalation of vapor. Use good ventilation, particularly if material is heated or sprayed. Prevent all contact with skin or eyes. Wear protective clothing, goggles, gloves, and/or barrier creams. Keep container closed when not in use. Wash thoroughly after handling.

FIRST AID: In case of skin contact, immediately wash with soap and water. In case of eye contact, flush eyes with copious amounts of water for at least fifteen (15) minutes. Remove contaminated clothing and shoes. If irritation persists, seek medical attention. Wash contaminated clothing before reuse.

FOR INDUSTRIAL USE ONLY / KEEP AWAY FROM CHILDREN

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