

# **CE815 EPOXY GROUT**

## HIGH PERFORMANCE EPOXY GROUT

#### **DESCRIPTION**

FasTrac CE815 Epoxy Grout is a three-component, 100% solids, high performance, epoxy machine grout. It is characterized by low dust, high bearing area, low exotherm, negligible shrinkage and creep, fast cure and excellent flowability.

### USE

FasTrac CE815 Epoxy Grout is ideal for high stress applications such as wind turbines, gas transmission, refining, chemical processing, pulp and paper, crane rail, marine and other machine base plate grouting. New equipment installations or re-grouting applications subject to chemical attack and extreme vibration are ideal for CE815 Epoxy Grout. CE815 can also be used as an anchoring adhesive.

#### **FEATURES**

- High impact resistance, high early strength, high effective bearing area and excellent flowability.
- Low exotherm cure for deep pour capability
- · High oil and chemical resistance
- Precision grouting with negligible shrinkage and creep
- · Pre-measured units
- Easy soap and water clean up
- Made in USA

#### **PACKAGING AND YIELD**

2.0 cu. ft. (0.0566 m<sup>3</sup>)

Component A – (1) premeasured 5-gallon pail Component B – (1) 1-gallon jug

Component C - (4) 55-lb bags aggregate

0.5 cu. ft. (0.0142 m<sup>3</sup>)

Component A - (1) 1-gallon jug Component B - (1) 1-quart jug

Component C – (1) 55-lb bag aggregate

### **PHYSICAL PROPERTIES**

Appearance: Component A - clear, Component B - clear amber Shelf Life: 2 years in original unopened container

Storage Conditions: Store at  $40^{\circ}$  F  $-95^{\circ}$  F  $(4.4^{\circ}$  C  $-35^{\circ}$  C). Condition material to  $65^{\circ}$  F  $-95^{\circ}$  F  $(18^{\circ}$  C  $-35^{\circ}$  C) before using.

## **SURFACE PREPARATION**

Concrete shall have reached its design strength and be dimensionally stable prior to placement of CE815 Epoxy Grout. All surface contamination must be removed by mechanical means, creating a surface profile of exposed sound aggregate that will provide a strong bond surface for the CE815 Epoxy Grout. All metal surfaces to be in contact with grout should be sandblasted to white metal finish and wiped clean with solvent. Items not intended to bond to grout, such as leveling screws, wedges and bolts must be protected with wax, caulk, duct tape or similar.

**Form preparation**: Epoxy grouts require heavy duty forms. A sheet of 3/4" plywood and proper bracing should be used to hold the force of the weight of the grout (140 lb./64kg per cu

ft). Forms should be coated with a minimum of two coats of an industrial grade paste wax to facilitate removal of forms after cure. Forms should have 30° angle chamfer strips at all vertical comers and horizontal grout grade elevation in order to eliminate sharp comers. Caulk, putty, or similar sealant should be used to render the forms "watertight". Forms should be designed to allow for a hydraulic head to facilitate the placement of CE815 Epoxy Grout. Expansion joints shall be used and placed every 4 to 6 feet extending from form to form across the width of the skid in order to minimize the potential for cracking in epoxy grout.

#### **MIXING**

CE815 Epoxy Grout is shipped in pre-measured 0.5cu ft. or 2.0 cu ft. units. Mix these products ONLY in complete units. DO NOT THIN or add any solvents prior to mixing.

**0.5 cu. ft.** /0.0147m³ kit: Pour both liquid components into pail and mix thoroughly for 3 minutes with a Jiffy mixer on low-speed (300 rpm) until material is a uniform consistency. NOTE: Keep mixer at bottom of pail to avoid introducing air. After liquid components are mixed, slowly add component C-Aggregate. *Mix only until all aggregate is wetted out. DO NOT OVER MIX*. Pour mixed grout into forms.

2.0 cu. ft. / 0.0566 m³ kit: Pour component B-Hardener into the pail containing component A-Resin. Mix material thoroughly for 3 minutes with a Jiffy mixer on a low-speed (300 rpm) drill motor until a uniform consistency is achieved. NOTE: Keep mixer at bottom of pail to avoid introducing air. Pour liquids into mortar mixer, making sure to remove all resins from sides and bottom of pail with spatula or similar tool. Introduce first bag of component C-aggregate prior to starting mixer. Start mixer and slowly add the remaining three bags of aggregate. Mix only until all aggregate is wetted out. DO NOT OVER MIX.

#### **APPLICATION**

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CE815 Epoxy Grout should be poured into forms at one location in order to allow a unidirectional flow. Use of a header box will ease the placement of the finished product. Strict adherence to temperature considerations will assist the placement properties. Check forms frequently for leaks. Plug leaks with a hydraulic cement or putty. CE815 Epoxy Grout will not self-seal.

**Finishing:** When forms are filled to desired elevation, exposed horizontal surfaces of CE815 Epoxy Grout may be finished with a surfactant such as CE SOLV 100 and a paintbrush or small hand trowel. Surfactant should be lightly sprayed or misted on surface. DO NOT PUDDLE on surface. This process can be repeated every 30 minutes until surfaces are firm.

**Temperature Considerations: I -** Epoxy grouts are temperature sensitive and care should be taken to condition all components (including component "C" aggregate) to between 65°F - 95°F (18°C - 35°C) for a minimum of 24 hrs. prior to mixing and placement. Temperatures colder than stated range increase viscosity of resins and inhibit mixing

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and flow of grouting materials. Temperatures warmer than stated range decrease viscosity of resins, hasten the cure" and reduce the working time of the grout. At the completion of the curing cycle the temperature shall be lowered slowly, no more than 40°F (4.4°C) in 48 hours to avoid the possibility of damage due to sudden contraction.

#### **CLEANUP**

CE815 Epoxy Grout is a low exothermic grout. The extended working time allows for easy soap & water cleanup of tools, mixers and work area while CE815 Epoxy Grout is in the plastic stage. For materials that have started to set, CE Natural Clean or CE SOLV 100 may be used.

TECHNICAL DATA			CE815 Standard Set		CE815 Extended Set		
ASTM C579 Compressive Strength psi (MPa)							
	1-day		10,500 (72.4)		6,400 (44.1)		
	3-day		13,500 (93.1)		10,500 (72.4)		
7-day			15,000 (103.4)		12,500 (86.2)		
	Post Cured			16,000 (110.3)		14,500 (100.0)	
ASTM C579 Compressive Modulus of Elasticity psi (MPa)			2,200,000 (15,170)		2,100,000 (14,480)		
ASTM C1181 Compressive Creep (400 psi, 140° F) in/in or cm/cm			0.004		0.004		
ASTM C307 Tensile Strength psi (MPa)			2,500 (17.2)		2,200 (15.2)		
ASTM C307 Tensile Modulus of Elasticity psi (MPa)			2,100,000 (14,480)		2,000,000 (13,790)		
ASTM C580 Flexural Strength psi (MPa)			4,500 (31.0)		4,100 (28.3)		
ASTM C580 Modulus of Elasticity psi (MPa)			2,000,000 (13,790)		2,000,000 (13,790)		
ASTM C882 Bond Strength psi (MPa)			3,500 (24.1)		3,300 (22.8)		
ASTM C884 Thermal Compatibility			pass		pass		
ASTM D2471 Gel Time			60 minutes		120 minutes		
ASTM D2471 Peak Exotherm			110° F (43.3°C)		90° F (32.2°C)		
ASTM C1339 Effective Bearing Area			95%		95%		
ASTM C531 Linear Shrinkage on cure			0.005%		0.005%		
ASTM C531 Coefficient of Thermal Expansion							
	Standard	in/in/°F (cm/cm/°C)	16 x 10 <sup>-6</sup> (28.8)	( 10 <sup>-6</sup> )	18 x 10 <sup>-6</sup> (32.4 x	( 10 <sup>-6</sup> )	
	Five-bag mix		14 x 10 <sup>-6</sup> (25.2 x 10 <sup>-6</sup> )		15 x 10 <sup>-6</sup> (27.0 x 10 <sup>-6</sup> )		
Pour Depth at 75° F			Up to 12 inches with proper curing and expansion allowance		Up to 24 inches with proper curing and expansion allowance		
Curing Temperature		Working Time	Initial Cure Time	Working Time	Initial Cure Time		
	50° F / 16° C		4 hours	42 hours	8 hours	84 hours	
	55° F / 18° C		3 hours	36 hours	7 hours	72 hours	
	65° F / 21° C		2 hours	30 hours	5 hours	60 hours	
	75° F / 24° C		1.5 hours	24 hours	3.5 hours	48 hours	
	85° F / 29° C		45 min	18 hours	2.5 hours	36 hours	
	95° F / 35° C		30 min	12 hours	1.5 hours	24 hours	
	100° F / 38° C		20 min	6 hours	1 hour	12 hours	

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#### LIMITED WARRANTY

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#### **MANUFACTURER**

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