# E<sup>3</sup>-Deep Pour



Epoxy Grout for Deep Pour Applications with DL Technology™ Aggregate

## Description

E³-DEEP POUR is a high strength epoxy grout designed for grouting machine and equipment bases of all types. Formulated to be used in deep placements, E³-DEEP POUR provides maximum bearing for bases of numerous configurations. Additionally, our patented DL Technology™ aggregate greatly reduces the amount of dust released into the environment during mixing and handling. E³-DEEP POUR meets the requirements of the American Petroleum Institute Standard 610, Appendix L for Baseplate and Soleplate Grouting.

# **Primary Applications**

- Large/deep volume precision placements
- · Rebuilding foundations, bases and columns
- · Vibration dampening for equipment

- Tanks, turbines and housings
- · Pour-backs for post tension projects

#### Features/Benefits

- DL Technology™ aggregate greatly reduces dust
- Low exotherm for large volume applications
- Expansive/non-shrink
- Excellent bearing

- Variable fill ratio
- Excellent bond to foundation and base plate
- · Stable in deep placements
- · Long working time

### **Technical Information**

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

	Standard Unit			High Flow Mix		
Property	1 Day	7 Days	28 Days	1 Day	7 Days	28 Days
Compressive Strength ASTM C 579 Method B	11,000 psi (76 MPa)	14,000 psi (97 MPa)	15,000 psi (103 MPa)	11,100 psi (77 MPa)	14,500 psi (100 MPa)	15,100 psi (104 MPa)
Creep ASTM C 1181	400 psi (2.8 MPa) @ 140°F (60°C)		3.6 x 10 <sup>-3</sup> in/in/ºF	400 psi (2.8 MPa) @ 140°F (60°C)		4.3 x 10 <sup>-3</sup> in/in/ºF
Flexural Strength ASTM C 580	4,000 psi (28 MPa)	4,400 psi (30 MPa)	4,500 psi (31 MPa)	4,200 psi (29 MPa)	4,500 psi (31 MPa)	4,600 psi (32 MPa)
Tensile Strength ASTM C 307	1,800 psi (12 MPa)	2,000 psi (14 MPa)	2,100 psi (14 MPa)	1,800 psi (12 MPa)	2,000 psi (14 MPa)	2,100 psi (14 MPa)
Bond to Concrete ASTM C 882		3,400 psi (23 MPa)	3,600 psi (25 MPa)		3,450 psi (24 MPa)	3,700 psi (26 MPa)
Coefficient of Thermal Expansion ASTM C 531	2.8 x 10 <sup>-6</sup> in/in/°F (73° to 210°F) (23° to 99°C)			2.8 x 10 <sup>-6</sup> in/in/°F (73° to 210°F) (23° to 99°C)		
Chemical Resistance	Excellent resistance to most industrial chemicals					
Maximum Thickness Per Lift	Up to 18 in. (45 cm)			Up to 9 in. (23 cm)		
Effective Bearing Area ASTM C 1339	>95%			>95%		
FLDOT Peak Exotherm 12"x 12"x 3"	98.0°F (36.7°C)			113.0°F (45.0°C)		
Working Time	90 min.			70 min.		

## Packaging/Yield

E3-DEEP POUR is packaged in 1.4 ft3(0.039 m3) kits. To mix to a high flow consistency, remove 1 bag of aggregate.

Resin, Part A: Hardener, Part B: Aggregate, filler Part C: Yield:

Standard Unit: 1.21 gal (4.6 L) 0.98 gal (3.7 L) 5 - 32 lb (14.5 kg) bags 1.40 ft³ (0.039 m³) High Flow Mix: 1.21 gal (4.6 L) 0.98 gal (3.7 L) 4 - 32 lb (14.5 kg) bags 1.15 ft³ (0.033 m³)

#### Shelf Life

2 years in original, unopened package

#### **Directions for Use**

**Surface Preparation**: Concrete must be a minimum of 28 days old. All oil, dirt, debris, paint and unsound concrete must be removed. The surface must be prepared mechanically using suitable equipment to give a surface profile of at least a CSP 5-7 in accordance with ICRI Guideline 310.2, exposing the coarse aggregate of the concrete. The final step in cleaning should be the complete removal of all dust and residue with a pressure washer and then vacuum until all water is gone. **Acid etching is acceptable only when mechanical preparation is impractical.** It is recommended that only contractors experienced in the acid etching process use this means of surface preparation. The salts of the reaction must be thoroughly pressure washed away. Allow the concrete to completely dry. **Note:** Even with proper procedures, an acid etched surface may not provide as strong a bond as mechanical preparation procedures. All concrete must possess an open surface texture with all curing compounds and sealers removed. **Base Plate Preparation:** Abrasive blast metal base plates to a commercial finish (SSPC-SP6) to enhance bond. Apply grout immediately to prevent re-oxidizing.

**Form Preparation**: Forms must be liquid tight to prevent leakage. They must be strong, well braced, and set slightly higher than the bottom of the base plate. To facilitate stripping, the forms should be coated with two applications of a paste wax or each form wrapped with polyethylene.

**Anchor Bolt Holes and Blockouts**: Holes and blockouts should be cleaned of all dust, dirt and debris and allowed to dry. If the sides are smooth, roughen the hole with a stiff bristle wire brush or with a rotary brush hammer if access permits.

**Mixing**: Slowly mix parts A & B (resin & hardener) for 2 minutes using a drill and mixing prop in a clean mixing pail. Add the Part B to the Part A (not the reverse). The epoxy must be well mixed to ensure proper chemical reaction. Do not whip air into the epoxy while mixing. After the epoxy has been mixed, directly pour the resin into a horizontal shaft mortar mixer. Add the part C (aggregate) to the mixture, one bag at a time and mix thoroughly for 2 to 3 minutes, until the aggregate is completely wetted out. Place immediately.

Placement: Pour into anchor bolt holes and blockouts through a funnel or directly if space permits. When grouting plates, pour grout into the headbox and allow to flow under the plate, working from one side only. Straps preplaced under the plate will aid in working the grout across. Grout should be placed at a minimum of 1" (25 mm) thick and a maximum of 18" (46 cm) per lift when placed in a large mass. Note: Bring all E³-DEEP POUR materials as well as the foundation and baseplate as close to 75°F (23°C) as possible. Cold temperatures will significantly reduce flow characteristics and will increase the difficulty of baseplate grouting. Higher temperatures will increase initial flow but cut down on working time. Curing: E³-DEEP POUR does not require any special curing procedures. Finish: If a smooth finish is desired, the surface of the grout may be brushed and troweled with a light application of EUCO SOLVENT.

### Clean-Up

Tools and mixer may be cleaned with soap and water.

#### Precautions/Limitations

- Wear proper PPE (Personal Protective Equipment) when handling epoxies.
- Do not use over frost covered or frozen concrete.
- Store material at room temperature before use.
- Grout should be placed at ambient temperatures of 50°F to 90°F (10°C to 32°C).
- · Rate of strength gain is significantly affected at temperature extremes.
- In all cases, consult the Safety Data Sheet before use.

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