E³-DEEP POUR

EPOXY GROUT FOR DEEP POUR APPLICATIONS



PACKAGING

E³-DEEP POUR consists of:

E³-Deep Pour Part A (hardener)

E³-Deep Pour Part B (resin)

E³-Deep Pour Aggregate

APPROXIMATE YIELD

2.1 litre Resin, 1.45 litre Hardener, 25kg Aggregate Filler yields 13.5 litre

CLEAN-UP

Tools and mixer may be cleaned with soap and water immediately, alternatively with Pro-Struct 105 Cleaner and rinsed with clean water.

SHELF LIFE

2 Years in original, unopened container.

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. E³-DEEP POUR meets the requirements of the American Petroleum Institute Standard 610, Appendix L for Baseplate and Soleplate Grouting.

PRODUCT CHARACTERISTICS

FEATURES / BENEFITS

- Low exotherm for large volume applications
- Expansive / non-shrink
- Excellent bearing
- Long working time
- Variable fill ratio
- Excellent bond-to-foundation and baseplate
- · Stable in deep placements

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

TECHNICAL INFORMATION

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

	Standard Unit		
Property	1 Day	7 Days	28 Days
Compressive Strength ASTM C579 Method B	77 MPa	100 MPa	104 MPa
Flexural Strength ASTM C580	29 MPa	31 MPa	32 MPa
Tensile Strength ASTM C307	12 MPa	14 MPa	14 MPa
Bond to Concrete ASTM C882	-	24 MPa	26 MPa
Creep ASTM C1181	7.7 x 10 ⁻³ mm/mm/°C (2.8 MPa at 60°C)		
Coefficient of Thermal Expansion ASTM C531	5.0 x 10 ⁻⁶ mm/mm/°C (23° to 99°C)		
Chemical Resistance	Excellent resistance to most industrial chemicals		
Maximum Thickness Per Lift	230mm		
Effective Bearing Area ASTM C1339	>95%		
FLDOT Peak Exotherm (300 x 300 x 150mm)	45°C		
Working Time	70 Minutes		

DIRECTIONS FOR USE

Surface Preparation:

Concrete 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-oxidising.

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 resin and hardener for 2 minutes using a drill and mixing prop in a clean mixing pail. Add the hardener to the resin (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, add the aggregate to the mixture, 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 pre-placed under the plate will aid in working the grout across. Grout should be placed at a minimum of 25mm thick and a maximum of 230mm 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 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 solvent.

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 10°C to 32°C.
- Rate of strength gain is significantly affected at temperature extremes.
- In all cases, consult the Material Safety Data Sheet before use.