

GROUTS

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E³-XTREME

ULTRA-HIGH PERFORMANCE EPOXY GROUT WITH DL TECHNOLOGY™ AGGREGATE



EUCLID CHEMICAL

PACKAGING

1.7 ft³ (0.048 m³) kit (1 pail, 6 bags)
Code: 040X 17

APPROXIMATE YIELD

1.70 ft³ (0.048 m³) kit (Standard): One 6 gallon pail containing both part A resin (27.71 lb (12.6 kg)) and part B hardener (6.32 lb (2.87 kg)), and six 32 lb (14.5 kg) bags containing Part C (aggregate). Yields 1.7 ft³ (0.048 m³).

CLEAN UP

Tools and mixer may be cleaned with soap and water before material hardens.

SHELF LIFE

2 years in original, unopened package

DESCRIPTION

E³-XTREME is a three-component, high flow, ultra-high strength epoxy grout. A special resin and hardener formulation plus patented DL Technology™ aggregate, sets E³-XTREME apart from competitive products. E³-XTREME has extremely high compressive strength, with ultra-low creep and outstanding Effective Bearing Area (EBA). DL Technology™ aggregate helps to greatly reduce the amount of dust released into the environment during mixing and handling.

PRODUCT CHARACTERISTICS

FEATURES/BENEFITS

- DL Technology™ aggregate minimizes dust
- Positive effective bearing
- Very high early strengths, fast return to service
- User friendly placing characteristics
- > 95% Effective bearing
- High chemical resistance
- Exceptional flexural and tensile strengths
- Very low creep
- Clean tools with soap and water

PRIMARY APPLICATIONS

- Pumps and rotating equipment
- Wind turbine bases and crane rails
- Compressors and turbo-machinery
- Skid-mounted equipment
- Presses and stamping machines
- High dynamic load applications

TECHNICAL INFORMATION

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

| Test Method | Test Property | Standard Unit |
|--|----------------------------------|--|
| ASTM C579 2 in (50 mm) cubes @73 °F (23 °C) | Compressive Strength | 1 day 15,800 psi (109.0 MPa) 7 days 17,000 psi (117.2 MPa) 28 days 17,500 psi (120.7 MPa) Post Cure* 19,000 psi (132.0 MPa) |
| ASTM C1181 28 day cure 400 psi (2.8 MPa) @ 140 °F (60 °C) | Compressive Creep | 1.9 x 10 ⁻³ in/in/°F |
| ASTM C580 | Flexural Strength | 1 day 5,500 psi (38.2 MPa) 7 days 5,600 psi (38.9 MPa) 28 days 5,650 psi (39.2 MPa) Post Cure* 5,700 psi (39.6 MPa) |
| ASTM C307 | Tensile Strength | 1 day 1,900 psi (13.1 MPa) 7 days 2,000 psi (13.9 MPa) 28 days 2,300 psi (15.9 MPa) Post Cure* 2,400 psi (16.5 MPa) |
| ASTM C882 | Bond Strength | 1 day N/A 7 days 3,300 psi (22.9 MPa) 28 days 3,900 psi (27.0 MPa) |
| ASTM C531 7 days | Coefficient of Thermal Expansion | 2.2 x 10 ⁻⁵ in/in/°F (74 to 210 °F) (23 to 99 °C) |
| ASTM C1339 | Effective Bearing Area | > 95% |
| ICRI Protocol | Approximate Working Time | 32 minutes at 73 °F (23 °C) |
| ASTM D2471 12 in x 12 in x 3 in (30 cm x 30 cm x 8 cm) specimen | Peak Exotherm | 168 °F (75.6 °C) at 65 minutes |
| | Chemical Resistance | Excellent resistance to most industrial chemicals |
| | Abrasion Resistance | Greater than concrete |

*Post Cure Procedure: Demold specimens after 24 hours; place in oven @140 °F (60°C) for 18 hours; remove from oven for 24 hours; perform test.

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DIRECTIONS FOR USE

Surface Preparation: New concrete must be a minimum of 28 days old. The concrete must be clean and rough. 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 vacuum cleaner followed by pressure washing. Then vacuum all water up and allow to dry completely. **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.

Form Preparation: Forms must be liquid tight to prevent leakage, and they should be strong and well braced. To facilitate stripping, the forms should be coated with two applications of paste wax or each piece wrapped with polyethylene.

Anchor Bolt Holes and Blockouts: Holes and blockouts must 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.

Mixing: Mix parts A & B (resin & hardener) separately using a drill and mixing prop. Then pour the Part B into the Part A container. Mix for 2-3 minutes, scraping the bottom and sides of the container, to ensure proper chemical reaction. Do not whip air into the epoxy while mixing. After the epoxy has been mixed, directly pour all of the mixed resin into a horizontal shaft mortar mixer. Add Part C (aggregate) to the mixture, one bag at a time and mix 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. Straps pre-placed under the plate will aid in working the grout across. Grout can be placed at a minimum of 1" (25 mm) thick to a maximum of 6" (150 mm) per lift when placed in a large mass. **Note:** Bring all E³-XTREME materials as well as 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 reduce working time.

Curing: E³-XTREME requires no 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.

PRECAUTIONS/LIMITATIONS

- Wear proper PPE when handling epoxies.
- Do not use over frost covered or frozen concrete.
- Store all materials at 75 °F (23 °C) for at least 24 hours before use.
- Grout should be placed at ambient temperatures of 50 to 90 °F (10 to 32 °C).
- Rate of strength gain is significantly affected at temperature extremes.
- Do not remove, or add more aggregate, than stated on this technical data sheet.
- In all cases, consult the Safety Data Sheet before use.

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