

E³ FLOWABLE

HIGH FLOW EPOXY GROUT



EUCLID CHEMICAL

PACKAGING

E³ FLOWABLE consists of:
E³ HCR Part A (hardener)
E³ Flowable Base (resin)
E³ Deep Pour Aggregate

APPROXIMATE YIELD

4.0 litre Resin, 0.86 litre Hardener, 25kg
Aggregate Filler yields 14.0 litre

CLEAN-UP

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

SHELF LIFE

2 Years in original, unopened container.

DESCRIPTION

E³ FLOWABLE is a 3-component, high flow, high strength, expansive epoxy grout designed for large plates and narrow configurations where flowability is critical.

PRODUCT CHARACTERISTICS

FEATURES / BENEFITS

- Positive effective bearing
- User-friendly placing characteristics
- Good chemical resistance
- High early strength, fast return to service
- >95% effective bearing
- Expansive / non-shrink

PRIMARY APPLICATIONS

- Large or wide plates requiring precision grouting
- Rail grouting, keyways and inverted baseplates
- Precision alignment of generators, compressors, electric motors and pumps
- Machinery, equipment or structural elements needing maximum bearing support
- Narrow clearance situations, including anchor bolts

TECHNICAL INFORMATION

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

| Property | Standard Unit | | |
|---|--|--------|---------|
| | 1 Day | 7 Days | 28 Days |
| Compressive Strength ASTM C579 Method B 50mm | 60 MPa | 75 MPa | 80 MPa |
| Flexural Strength ASTM C580 | 27 MPa | 28 MPa | 30 MPa |
| Tensile Strength ASTM C307 | 10 MPa | 12 MPa | 13 MPa |
| Bond to Concrete ASTM C882 | N/A | 21 MPa | 24 MPa |
| Compressive Creep ASTM C1181 | 11.52 x 10 ⁻³ mm/mm/°C | | |
| Coefficient of Thermal Expansion ASTM C531 | 16.0 x 10 ⁻⁶ (23 to 99°C) | | |
| Effective Bearing Area ASTM C1339 | >95% | | |
| Working Time | 70 minutes at 25°C | | |
| Peak Exotherm ASTM D2471 | 29.3°C at 90 minutes | | |
| Chemical Resistance | Good resistance to most industrial chemicals | | |
| Abrasion Resistance | Greater than concrete | | |

E³ Flowable (3) July 2025 replaces July 2023

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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 & hardener separately using a drill and mixing spiral. Pour the hardener into the resin (not the reverse). Mix for 2 to 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, transfer resin into a suitable mixing vessel and 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 12mm thick and a maximum of 150mm per lift when placed in a large mass.

Note: Bring all E³ FLOWABLE 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 FLOWABLE 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.
- Do not remove or add more aggregate than stated on this technical data sheet.
- In all cases, consult the Material Safety Data Sheet before use.

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