# E<sup>3</sup> FLOWABLE HIGH FLOW EPOXY GROUT



#### PACKAGING

E<sup>3</sup> FLOWABLE is packaged in 14 litre kits

#### **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

 $E^3$  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.

	Standard Unit		
Property	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 <sup>-3</sup> mm/mm/°C		
Coefficient of Thermal Expansion ASTM C531	16.0 x 10 <sup>-6</sup> (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		

### **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  $E^3$  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: E<sup>3</sup> 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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Application of the product should be done according to the procedure mentioned in this leaflet. Stoncor ME LLC will not be held responsible for any claim arising out of non-performance of the product due to incorrect application procedure or usage of product for non-recommended purposes. Please contact Stoncor technical team for more details on application of the product for purpose other than mentioned above or on the surfaces with special construction additives.

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