

EPO GROUT FL

HIGH FLOW EPOXY GROUT



DESCRIPTION

EPO GROUT FL high flow epoxy grout is the performance standard for flowable epoxy grouts. A special resin and hardener formulation plus a proprietary aggregate filler allow EPO GROUT FL to travel through a standard grout box in less than a minute. Designed with excellent engineering properties, this product provides high bearing and ease of placeability. EPO GROUT FL was specially designed for applications involving the grouting of large base plates and narrow configurations.

FEATURES & BENEFITS

- Fast return to service.
- User friendly placing characteristics.
- Excellent bond of machinery to foundation.
- Maximum possible bearing.
- High chemical resistance.
- Exceptional strengths including flexural and tensile.

BASIC USES

- Large or wide plates requiring precision grouting
- Machinery, equipment or structural elements needing maximum bearing support
- Rail grouting, keyways and inverted baseplates
- Narrow clearance situations including anchor bolts

SPECIFICATIONS & COMPLIANCES

- EPO GROUT FL meets the requirements of ASTM C 307 type I, Grade II, Class A.
- EPO GROUT FL meets the thermal compatibility with concrete requirements of ASTM C 884.

TECHNICAL INFORMATION

Typical Engineering Data

The following results were developed under laboratory conditions.

Compressive Strength

ASTM C-579 (50 mm cubes)

Age	Strength
24 hours	6,900 psi (48 MPa)
3 days	10,400 psi (72 MPa)
7 days	11,500 psi (79 MPa)
28 days	12,700 psi (88 MPa)

Creep Data, ASTM C-1181

Tested in Accordance with CRD C-621

3days	3.4×10^{-4} in/in (3.4×10^{-4} mm/mm)
7 days	4.4×10^{-4} in/in (4.4×10^{-4} mm/mm)
28 days	5.5×10^{-4} in/in (5.5×10^{-4} mm/mm)

Linear Shrinkage, ASTM D-531

3 days	0.013%
7 days	0.031%
14 days	0.066%

Coefficient of Thermal Expansion, ASTM C-531
 2.70×10^{-5} in./in./°F (4.9×10^{-5} mm/mm/°C)

Bond to Concrete : Exceeds tensile and shear strength of concrete

Chemical Resistance

ASTM D-543, excellent resistance to most chemicals, specific recommendations available upon request.

Abrasion Resistance : Greater than concrete.

Flexural Strength, ASTM C 580

1 day	3,300 psi (23 MPa)
3 days	3,600 psi (25 MPa)
7 days	3,800 psi (26 MPa)
28 days	3,900 psi (27 MPa)

Modulus of Elasticity, ASTM C 580

Tested in Accordance with CRD C-621

1 day	0.75×10^6 psi (5.2×10^3 MPa)
3 days	1.16×10^6 psi (8.0×10^3 MPa)
7 days	1.21×10^6 psi (8.3×10^3 MPa)
28 days	1.46×10^6 psi (10.1×10^3 MPa)

Tensile Strength, ASTM C 307

1 day	1,850 psi (13 MPa)
3 days	2,100 psi (14 MPa)
7 days	2,150 psi (15 MPa)
28 days	2,225 psi (15 MPa)

Gel Time, ASTM D 2471 @ 23°C : 35 minutes

Peak Exotherm, ASTM D 2471 33°C @ 320 minutes

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 a scabber, bushhammer, shotblast or scarifier which will give a surface profile of a minimum 3 mm and expose the coarse aggregate of the concrete. The final step in cleaning should be the complete removal of all residue with a vacuum cleaner or pressure washing. 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.

YIELD	it will yield approx 0.013 m ³ of grout. 27 kg of EPO GROUT FL will grout approx. 1.3 m ² when placed at an average depth of 10 mm
PACKAGING	EPO GROUT FL is packed in 27 kg kit
COLOR	Contact CMCI tech dept

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.

Form Preparation

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

mix parts A & B (resin & hardener) for 2 minutes using a drill and mixing prop. For ease of mixing add the Part B to the Part A (not the reverse). The epoxy must be well mixed to ensure proper chemical reaction. After the epoxy has been mixed, add the Part C (aggregate) and mix for a further 2-3 minutes until the aggregate is completely wetted out. For large jobs, use a mortar mixer for mixing. 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 should be placed at a minimum of 25 mm thick and a maximum 150 mm per lift when placed in a large mass.

Note

Higher temperatures will increase initial flow but cut down on working time.

Curing

EPO GROUT FL 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 CEMTEC SOLVENT.

CLEAN-UP

Tools and mixer may be cleaned with CEMTEC SOLVENT, or ketone solvents.

PRECAUTIONS & LIMITATIONS

- Wear protective gloves and eye glasses when handling epoxies.
- Do not use over frozen concrete.
- Store material at room temperature before use.
- Solvents used for clean-up are flammable, keep away from heat, sparks, open flame, or lit cigarettes. Use explosion-proof application equipments.

Quality Statement

CMCI manufactures its products at their manufacturing facility in Saudi Arabia as per the Quality Procedures certified to conform with quality Management System described in ISO 9000 series

CMCI provides a comprehensive technical support system for its full range of high performance construction products CMCI also offers full technical field support to consultants, Architects, contractors, applicators and End Users.

"High Quality Construction Chemicals"

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