



ChemMasters

POLYTOPS HF GROUT

HIGH FLOW EPOXY GROUT

SPECIALTY CONSTRUCTION PRODUCTS

P R O D U C T D A T A

DESCRIPTION

PolyTops HF Grout is a three component epoxy grout comprised of a 100% solids epoxy resin blend and a proprietary aggregate blend designed to produce exceptional flow, high strength and chemical resistance. It is formulated to withstand dynamic loading, high bearing and is easier to place in narrow configurations and under large base plates.

USES

- Placements requiring high vibration and temperature resistance, extreme thermal variations or maximum bearing support.
- Under large or wide base plates, in narrow tolerance spaces including anchor bolts
- Dynamic loading conditions such as centrifuges, milling machines and presses.

ADVANTAGES

- Excellent flow
- Maximum bearing support
- High strength yet fast curing for minimum downtime
- Exceptional resistance to temperature fluctuations
- Excellent flexural, tensile and shear strengths
- Resistant to many corrosive chemicals and oils
- Withstands prolonged elevated temperatures
- Abrasion resistance exceeds that of concrete

ESTIMATING GUIDE

Part A Resin 5.5 U.S. gallons (20.82L)

Part B Hardener 1.0 U.S. gallon (3.78L)

Part C Aggregate 200 pounds (90.80 Kg)

Yield 2.1 ft.³ (0.059 m³)

Part A Resin is packaged in a 6 gallon (22.7 L) pail, Part B Hardener in a 1 gallon (3.78 L) can, Part C aggregate is contained in four 50 pound (22.7 Kg) bags.

TECHNICAL DATA

The following data was acquired under laboratory conditions and was performed on seven day old samples.

Color-mixed Gray

Pot Life at 77F° (25°C) one hour

Viscosity of mixed grout Fluid

Compressive Strength (ASTM C-109)	psi	MPa
	13000	89.37

Shear Strength	3000	20.62
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Flexural Strength (ASTM D-790)	2900	19.94
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Tensile Strength (ASTM C-109)	2300	15.81
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Water Absorption (ASTM C-276) 0.025%

Linear Shrinkage (ASTM D-531) 0.000510 in/in

Coefficient of Linear Thermal Expansion 72F°-210F° (22°-99°C)	3.5 x 10-5 in/in/°F
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Bond to Concrete
Exceeds tensile and shear strengths of normal weight concrete

Chemical Resistance Excellent
Special requirements evaluated upon request

DIRECTIONS

SURFACE PREPARATION: Proper surface preparation is the most critical step in successful epoxy grout placements.

Concrete must be a minimum of 28 days old. All concrete substrates must be clean and free of all dust, dirt, oils, grease, form release agents, curing or sealing compounds and any other contaminants that could adversely effect bond. For optimum bonding characteristics, roughen concrete substrate to obtain a 1/8"-1/4" (0.3-0.6 cm) profile. Anchor bolt holes and block-outs should be roughened with a wire brush or rotary brush hammer.

All metal, plates and bolts to be grouted must be cleaned to bright, shiny surface. All machine oils, mill scale, grease,



ChemMasters

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300 EDWARDS STREET • MADISON, OHIO 44057-3112

(216) 428-2105 • FAX (216) 428-7091 • ORDER LINE: (800) 486-7866

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paints or other contaminants must be removed. Protective epoxy coatings do not necessarily have to be removed. Consult ChemMasters technical services department for specific requirements.

Immediately prior to grout placement, vacuum or use oil free compressed air to remove any remaining dust or dirt.

FORM CONSTRUCTION: Forms and head boxes should be constructed following the recommendations outlined in ACI 351.1R, 6.5 Formwork. All joints must be made liquid tight, use of a silicone caulk or sealant is permitted. For ease in stripping forms, coat inside surfaces with a paste wax or line tightly with polyethylene sheeting.

Place clean, oil free, thin metal or stiff plastic strapping under the base plate to facilitate grout movement.

MIXING: Condition PolyTops HF Grout components to approximate room temperature, 70°F (21°C) prior to mixing.

PolyTops HF Grout must be mixed mechanically. A paddle type mortar mixer with rubber tipped blades is recommended. Pour the Part A Resin into the mixing drum. Add all of the Part B Hardener and blend for 1 minute. Add the aggregate and continue blending for another 2-3 minutes. Mix well until all aggregate is wet out and uniformly coated with epoxy. Begin placing immediately.

If using a low speed drill equipped with a jiffler blade for mixing, a separate, 10 gallon or larger mixing container is required. Container must be clean and dry prior to beginning resin blending. Mix the Part A and Part B for 1 minute. Gradually add aggregate to blended resins and mix for 2-3 minutes.

PLACEMENT: Optimum temperature of substrate and base plates is approximately 70°F (21°C). If ambient or base temperatures below 60°F (15.6°C) or above 90°F (47°C), do not apply grout. All surfaces to be grouted must be dry.

Fill anchor bolt holes from the base to the top. Insert bolt with easy turning motion to assure even displacement of epoxy. Immobilize bolts in proper alignment until epoxy begins to harden. Block-outs should be filled in the same manner.

Grouts under machine bases and plates should be placed from one side only and allowed to flow to the opposite side. This procedure reduces the possibilities of creating air pockets and voids. Strapping aids in this process.

Place grout at a minimum thickness of 1/2 inch (1.25 cm) and no more than 4 inches (10 cm) in a single lift when placed in a large mass. Do not vibrate grout.

FINISHING: For a smooth, glass-like finish of exposed grout, wipe trowel lightly with Polyseal Solvent and smooth surface while still tacky.

CURING

PolyTops HF Grout is self-curing.

CLEANING

Clean tools and equipment with Polyseal Solvent, xylene or MEK.

STORAGE

Store unmixed components in tightly closed containers, away from direct sunlight or sources of heat. Shelf life of properly stored, unmixed material is one year from date of manufacture.

LIMITATIONS

- Do not add water to any of the components.
- Do not use over frost or frozen concrete
- Do not use over concrete less than 28 days old
- Do not place grout if ambient or substrate temperature is below 60°F (15.6°C).
- Excessively hot temperatures increase initial flow but reduce pot life significantly

CAUTIONS

Corrosive Liquid: Corrosive to eyes. Causes skin irritation, sensitization or chemical burns. Respiratory tract irritant. Use with adequate ventilation. Do not take internally. Keep out of reach of children. Wear protective gloves and safety glasses or goggles.

All label precautions and MSDS must be fully understood before using this product.

This Product is Formulated and Labeled for Industrial and Commercial Use Only

FOR BEST RESULTS AND SAFEST USAGE, USER IS SPECIFICALLY DIRECTED TO CONSULT THE CURRENT MATERIAL SAFETY DATA SHEET AND PACKAGE LABEL FOR THIS PRODUCT

We warrant our products to meet our published specifications and to be free from defects in materials and workmanship to the acceptable quality levels defined in these specifications. If acceptable quality levels are not specified, the acceptable quality levels will be those normally supplied by us for the product. We make no guarantee of the results to be obtained from the use of our products. The determination as to the adaptability of any of our products to the specific needs of the Buyer is solely Buyer's prerogative and responsibility. We are glad to offer suggestions on the use of our products. Nevertheless, there are no warranties given except such expresses warranties offered in connection with the sale of a particular product. Our liability shall be limited to replacement of, or refund of an amount not to exceed the purchase price attributed to, the goods as to which such claim is made. Our selection of one of these alternatives shall be Buyer's exclusive remedy. IN NO CASE SHALL WE BE LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES, EVEN IF WE HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE FOREGOING WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, CO-CONDITIONS AND REPRESENTATIONS, EITHER EXPRESSED OR IMPLIED, WHETHER ARISING UNDER ANY STATUTE, COMMON LAW, USAGE OR TRADE, COURSE OF DEALING OR OTHERWISE, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.