BLOME INTERNATIONAL

Surrounding You with Exceptional Protection

CHEMICAL PROOFING SYSTEMS

DURAGROUT HF

High Flow Epoxy Machinery Grout

PRODUCT DESCRIPTION

Blome Duragrout HF is a three-component, high flow, epoxy grout used for precision grouting of equipment and machinery. Duragrout HF is ideal for grouting applications when a flowable consistency into tight clearances is required. Duragrout HF exhibits excellent physical properties, volume stability upon cure and excellent non-shrink properties. The material has superior flow characteristics, making it ideal for grouting under baseplates, as well as, long working time and a low exotherm upon cure. Duragrout HF is ideally suited for grout pours two inches (2") thick or less.

Blome Duragrout HF is also well suited for the repair of concrete floors, pads, trenches, and other structures requiring resistance to dilute acids, bleaches, alkalis, solvents and other corrosive chemicals. The material exhibits excellent bond strength to concrete, and physical properties at least 3 times that of standard concrete. Duragrout HF is suitable for use in areas exposed to heavy traffic and abuse.

TYPICAL USES

Duragrout HF Epoxy Machinery Grout is suitable for use in a variety of applications including:

- Grouting oscillating equipment
- Grouting critical machinery
- Concrete repair applications
- Pump and equipment pads

HANDLING CHARACTERISTICS

Blome Duragrout HF is placed by casting into forms and under baseplates, typically with the use of a "head box" or "stand pipe" to maintain head pressure on the liquid grout for maximum flow. Duragrout HF can also be placed by screeding into place as an overlay on floor slabs and concrete pads. Duragrout HF flows well into forms and under baseplates. Blome Duragrout HF cures quickly but with a low exotherm, offering quick turnaround with minimal downtime for maintenance and new construction applications.

TYPICAL PROPERTIES

WET

Components:	Three (3) Resin, Hardener & Aggregate
Wet density:	136 lbs./ft^3
Mixed consistency:	Flowable grout
Pot life:	50°F 70 minutes
	77°F 45 minutes
Initial set:	50°F 7 - 8 hours
	77°F 3 - 4 hours
Final cure	50°F 7 days minimum
	77°F 5 days minimum
Peak Exotherm	95°F in 2" thick casting

CURED

Absorption (ASTM C-413)	0.05%
Bond Strength to concrete	Concrete failure
Coefficient of thermal expansion (ASTM C-531)	12 x 10^{-6} in/in/°F
Color	Gray
Compressive Strength (ASTM C-579)	14,200 psi
Flexural Strength (ASTM C-580)	4,000 psi
Shrinkage upon cure	Less than 0.05%
Tensile Strength (ASTM C-307)	2,700 psi

PACKAGING & STORAGE

Blome Duragrout HF is supplied as a three (3)-component product, with a Resin, Hardener and Aggregate. Duragrout HF Components are packaged as follows:

Unit Size	0.42 ft^3
Resin (Part A)	5.88 lb. can
Hardener (Part B)	2 lb. can
Aggregate (Part C)	50 lbs. (1 x 50 lb. bag)

Shelf life for Duragrout HF components is one (1) year. Keep Duragrout HF components tightly sealed in original containers until ready for use. Store components in a cool, dry place, out of direct sunlight, and on pallets at temperatures between 50°F – 80°F. Protect Duragrout HF Aggregate from water and weather while in storage and on jobsite.

ESTIMATED COVERAGE

Blome machinery grouts and Silicate Concretes are estimated and sold by the cubic foot. One cubic foot covers the following areas at stated thickness:

1" thickness	12 ft^2/cubic foot
2" thickness	6 ft^2/cubic foot

BID SPECIFICATION GUIDE

Use Blome Duragrout HF Epoxy Machinery Grout as manufactured by Blome International, O'Fallon, MO.

JOB SITE ENVIRONMENTAL CONDITIONS

Blome Duragrout HF must be applied while ambient temperatures are between 50°F and 90°F. Blome Duragrout HF components and substrate temperatures must also be maintained in this range. For best results, store Duragrout HF components at 75°F minimum, for 24 – 36 hours prior to installation. Duragrout HF should be protected from water and weather during installation and curing.

SURFACE PREPARATION

Concrete must be adequately cured, structurally sound and dry. It must be free of dirt and contaminates and all defects should be repaired. All loose coatings must be removed. Concrete must be dry in accordance with ASTM D 4263 Plastic Sheet Test Method. Concrete surfaces must be free of all laitance, oil, curing compounds, and any dust or other loose materials prior to installation of materials. Concrete must be etched or roughened by abrasive blasting, shot blasting, grinding or in some instances, it may be acid etched. Check with Blome International for optional recommendations.

Concrete substrates to which Blome Duragrout HF will be applied may be optionally primed using Blome 75 Epoxy Primer prior to installation of Duragrout HF machinery grout. Apply primer to prepared concrete substrates using brush or roller, working primer into the pores of the concrete. Allow primer to cure until tacky or overnight prior to installation of Duragrout HF machinery grout.

SAFETY PRECAUTIONS

Blome Duragrout Resin, Hardener, HF Aggregate, & mixes of them present various health hazards if handled improperly. Duragrout HF Aggregate contains silica dust, Duragrout Resin will cause eye injury and irritate skin and Duragrout Hardener is a corrosive liquid. Wear respirator suitable for silica dust, safety glasses with side shields, gloves and long sleeve shirts to prevent all contact with skin and eyes. After working with Blome Duragrout HF, wash thoroughly before eating, drinking, smoking or other activities.

APPLICATION EQUIPMENT

Blome Duragrout HF is best mixed with a paddle type mortar mixer or in a pail using a drill motor driven paddle blade. All mixing and application equipment must be clean, dry and free of any contaminants including Portland cement other mortars or resins. When mixed, Duragrout HF is transferred to placement area using a clean, dry wheelbarrow or buckets. Forms should be filled using clean, dry shovels or buckets.

MIXING AND APPLICATION

Mix Resin (Part A) and Hardener (Part B) together with a drill motor driven paddle mixer and blend thoroughly for 1-2 minutes. Pour this mixture into the paddle type mortar mixer and turn the mixer on. Add Aggregate (Part C) to the mixer and mix to a uniform castable consistency. Mix for 1-2 minutes minimum, making sure there are no lumps or dry pockets of powder on the paddles or in corners of mixer. The amount of aggregate may be adjusted slightly, up or down, to achieve desired consistency for specific uses. Slightly less aggregate will give better flow and self-leveling properties for grout applications.

To achieve maximum surface contact with baseplates it is recommended that liquid grout is left in the head box or stand pipe to maintain liquid grout pressure on casting. As grout begins to harden, this headbox material is then removed prior to initial cure of grout. This procedure will maximize surface contact areas under baseplates for critical machinery grouting applications.

When casting into forms it is important that all forms be sealed “water tight” to prevent weeping of resin from forms. Forms must be treated with a wax or petrolatum based form release agent, or wrapped with Mylar, polyethylene or other plastic sheet to prevent Duragrout HF from permanently bonding to forms. Vibration is permitted to remove entrained air from machinery grout castings.

CLEANUP

All tools, mixing equipment, gloves and application equipment should be cleaned up immediately using a citrus or biodegradable cleanser, with hot water, while material is still wet. If material begins to cure, solvent-based cleaners will be required for removal.

WARRANTY

We warrant that our goods will conform to the description contained in the order and that we have good title to all goods sold. Our material data sheets and other literature are to be considered accurate and reliable, but are used as guides only. WE GIVE NO WARRANTY OR GUARANTEE, WHETHER OF MERCHANT ABILITY OR FITNESS OF PURPOSE OR OTHERWISE, AND WE ASSUME NO LIABILITY IN CONNECTION THEREWITH. We are happy to give suggestions for applications; however, the user assumes all risks and liabilities in connection therewith regardless of any suggestion, we may give. We assume no liability for consequential or incidental damages. Our liability, in law and equity, shall be expressly limited to the replacement of non-conforming goods at our factory, or at our sole option, to repayment of the purchase price of the non-conforming goods.

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