

## GROUTS

Master Format #: 03 62 13

# HI-FLOW GROUT

HIGH TOLERANCE, NON-SHRINK GROUT



EUCLID CHEMICAL

### PACKAGING

50 lb (22.7 kg) bags  
Code: 088H 50

### APPROXIMATE YIELD

**50 lb (22.7 kg) unit:** 0.45 ft<sup>3</sup> (0.013 m<sup>3</sup>) per unit when mixed with 1.0 gal (3.8 L) of potable water.

**Extended:** 0.60 ft<sup>3</sup> (0.017 m<sup>3</sup>) per unit  
See full extending instructions under "Directions for Use".

### CLEAN UP

Clean tools and equipment with water before the material hardens.

### SHELF LIFE

9 months in original, unopened package

### SPECIFICATIONS AND COMPLIANCES

- CRD-C 621, Corps of Engineers Specification for Non-Shrink Grout
- ASTM C1107, "Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Non-Shrink)"
- Shows positive expansion when tested in accordance with ASTM Specification C1090, "Standard Test Method for Measuring Changes in Height of Cylindrical Specimens from Hydraulic-Cement Grout"
- Canadian MTQ
- NSF/ANSI/CAN Standard 61

### DESCRIPTION

HI-FLOW GROUT is specially designed for use where high tolerance, high strength and high fluidity are required. It is formulated as a natural aggregate system with a shrinkage-compensating binder and is highly flowable without sacrificing strength or performance capabilities. HI-FLOW GROUT is formulated to provide consistent and exacting performance in critical grouting operations.

### PRODUCT CHARACTERISTICS

#### FEATURES/BENEFITS

- Highly fluid for ease in placement
- High strength for maximum load bearing
- Non-shrink with minimum positive expansion for high-tolerance performance
- Non-bleeding and non-segregating at a fluid consistency
- Does not contain any chlorides or additives which may contribute to corrosion of base structure
- Total shrinkage compensation provides a maximum bearing surface for the greatest overall support
- Rapid strength gain to minimize turnaround time for equipment re-grouts
- Excellent working time at high ambient temperatures

#### PRIMARY APPLICATIONS

- Heavy duty grouting of machinery and equipment
- Structural columns
- Crane rails
- Bridge seats
- Bearing plates
- Anchorages

## TECHNICAL INFORMATION

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

Test Method	Test Property	Flowable Consistency	Fluid Consistency
ASTM C939/ CRD-C 621	Flow Rate	n/a	Initial . . . . . < 30 seconds 30 minutes . . . . . < 30 seconds 60 minutes . . . . . < 35 seconds
ASTM C1437	Flow Rate	129 %	n/a
ASTM C109M* 2 in (50 mm) cubes	Compressive Strength	1 day . . . 3,500 psi (24 MPa) 3 days . . . 5,250 psi (36 MPa) 7 days . . . 6,000 psi (41 MPa) 28 days . . . 9,500 psi (66 MPa)	1 day . . . 3,000 psi (21 MPa) 3 days . . . 4,800 psi (33 MPa) 7 days . . . 5,000 psi (34 MPa) 28 days . . . 8,500 psi (59 MPa)
ASTM C1090/ CRD-C 621	Volume Change	1, 3, 7, 28 days . . . . . 0.02 %	1, 3, 7, 28 days . . . . . 0.03 %
ASTM C191	Setting Time	Initial Set . . . . . 3 hrs 50 min Final Set . . . . . 4 hrs 50 min	Initial Set . . . . . 3 hrs 50 min Final Set . . . . . 4 hrs 50 min

\*See ASTM C1107 Section 11.5

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## DIRECTIONS FOR USE

**Note:** The contractor and engineer are encouraged to consult and review the Euclid Chemical bulletin “Cementitious Grout Application Guide”. The document offers instructions detailing the general installation of Euclid Chemical manufactured cement-based grout products.

While HI-FLOW GROUT is designed to be fluid poured at temperatures ranging from 40 to 100 °F (4.5 to 38 °C), the product is most easily placed at temperatures of 60 to 70 °F (16 to 21 °C).

### Mixing Water Guide gal (L)/bag

Consistency	Estimated Water Content, 50 lb bag*	Mix Time
Fluid	1.0 to 1.2 (3.8 to 4.5 L)	5 min.
Flowable	0.9 to 1.0 (3.4 to 3.8 L)	5 min.
Plastic	0.8 to 0.9 (3.0 to 3.4 L)	5 min.

*\*Do not add water in an amount that will cause bleeding or segregation. More or less water may be required to achieve a 25 second flow or the desired placing consistency, depending on temperature and other variables. Do not add sand or cement to the grout since this action will change its precision grouting characteristics.*

When HI-FLOW GROUT will be placed at a depth over 5” (12.7 cm), up to 25 lb (11.3 kg) of pea gravel per 50 lb (22.7 kg) bag must be added to each bag of grout. **When extending HI-FLOW GROUT with pea gravel, the maximum allowable mixing water is 0.9 to 1.0 gal (3.4 to 3.8 L) in order to prevent segregation of aggregate during placement and initial set.**

**Application:** See the “Cementitious Grout Application Guide” for installation means and methods.

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## PRECAUTIONS/LIMITATIONS

- Store materials in a dry place.
- Do not add sufficient water to promote bleeding of the grout.
- Use only potable water for mixing, and do not add admixtures or fluidifiers.
- Do not use this product at a flow cone rate of less than 20 seconds if checking flow rate on the job site (see CRD-C 611 or ASTM C939 for flow cone method).
- Rate of strength gain is significantly affected at temperature extremes.
- Do not use material at temperatures that may cause premature freezing.
- Keep the grout from freezing until a minimum strength of 4000 psi (28 MPa) is reached.
- When necessary, follow the recommendations in ACI 305R “Guide to Hot Weather Concreting” or ACI 306R “Guide to Cold Weather Concreting”.
- Shoulder cracking may occur on wide shoulders, improperly cured shoulders, or at stress points such as shimpacks, bolts or plate stiffeners. These cracks are of no structural significance.
- Do not use as a topping.
- Proper curing is required.
- In all cases, consult the Safety Data Sheet before use.

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