

OmniCrete HF

High-tolerance, high-flow, non-shrink grout

PRODUCT DESCRIPTION

OmniCrete HF 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. OmniCrete HF is formulated to provide consistent and exacting performance in critical grouting operations.

TYPICAL USES

OmniCrete HF is suitable for use in a variety of applications including:

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

HANDLING CHARACTERISTICS/FEATURES

- Highly fluid for ease in placement
- High strength for maximum load bearing
- Non-shrink with minimum positive expansion for high-tolerances
- 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-grout
- Excellent working time at high ambient temperatures

TYPICAL PROPERTIES

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

PACKAGING & STORAGE

OmniCrete HF is packaged in unit sizes as follows:

50 lb (22.7 kg) bag

Yield – 50 lb (22.7 kg) unit: 0.45 ft³ (0.013 m³) per unit when mixed with 1.0 gal (3.8 L) of potable water

Properly stored, OmniCrete HF has a shelf life of 9 months in the original unopened package. Refer to the date of manufacture printed on the label.

SPECIFICATION GUIDE

Use OmniCrete HF as manufactured by Blome International, O'Fallon, MO (800) 886-3455. Install in accordance with the latest data sheet for OmniCrete HF and the corresponding Blome overcoat material as well as good industry practice.

APPLICATION GUIDELINES / ENVIRONMENTAL CONDITIONS

For optimum results, condition material to 60 to 70 °F (16 to 21 °C) at least 24 hours prior to use. The minimum application temperature is 40 °F (4.5 °C) and rising at time of application (max temperature 100 °F (38 °C)).

SURFACE PREPARATION

The following recommendations generally apply to the proper surface preparation of concrete for OmniCrete HF but consult the data sheet of the Blome overcoat material for any additional or superseding requirements for surface preparation.

1. Concrete must be structurally sound and must not contain any accelerators or curing compounds.
2. Remove all oil, grease, chemicals or other contaminants.
3. Mechanically abrade the surface to achieve a surface profile equal to CSP 5 - 7 in accordance with ICRI Guideline 310.2. Properly clean profiled area.
4. Consult Blome International for priming recommendations.

APPLICATION EQUIPMENT

Single 50 lb. (22.7 kg) units may be mixed with a drill and “jiffy” or paddle mixer. A mortar mixer may be used for large jobs on if it is capable of achieving high shear.

MIXING AND APPLICATION

1. One 50 lb. (22.7 kg) unit requires the quantity of potable water shown in the table below. Mix for 5 minutes. Do NOT add more water than this.
2. Add the appropriate amount of potable water to a clean mixing vessel, then gradually add the dry product. Do not exceed maximum water or add any additional additives.

· **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.
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**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 OmniCrete HF 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 OmniCrete HF 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.**

PLACING MIXED MATERIAL

Grouts should be placed quickly and continuously. Place grout from one side only, using the headbox, to assure complete filling of the space being grouted. Use a rod or strapping to assist in placement on large or difficult grouting configurations. Place grout only to the bottom edge of the baseplate

CURING/SEALING

As soon as the sheen of water disappears and the grout has begun to stiffen, pond with water or cover with wet rags, burlap or plastic to prevent premature drying. The forms may be removed as soon as the grout has stiffened or set sufficiently to prevent sagging away from the bottom of the baseplate. Cut back the shoulders of the grout to a 45 degree angle, sloping downward from the bottom of the baseplate to the foundation. Do not allow any excess grout to remain above the bottom edge of the baseplate or in an unchamfered shoulder. Finish the grout surface to the desired texture where required. Following cut back and finishing operations, apply two coats of a high solids curing compound to the grout. If a curing compound is not desired, keep all surfaces wet by sprinkling the surface with water then covering with wet burlap or polyethylene sheeting for a minimum of 72 hours. Treatment of Shrinkage Cracks: Cracks in exposed grout (shoulders) typically do not propagate under the baseplate, and do not affect the vertical load-carrying capacity of the grout. However, if repair is desired, the surface of hairline cracks can be treated with a low-viscosity epoxy crack healer/sealer. Another acceptable option is to rout out and fill cracks by hand with a compatible grout.

CLEAN-UP

Clean tools and equipment with water before the material hardens.

CAUTION

OmniCrete HF causes eye and skin irritation. Wear safety glasses, gloves and avoid contact with skin and eyes, and refer to the safety data sheet, which is available for each product.

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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