



Surrounding You with Exceptional Protection

OmniCrete VO Vertical and Overhead Repair Mortar

PRODUCT DESCRIPTION

OmniCrete VO is a single-component, quick-setting, low shrinkage repair mortar formulated with unique polymers and fiber reinforcement for vertical and overhead repairs requiring high performance. OmniCrete VO meets ASTM C928 Standard Specification for Rapid Hardening Cementitious Materials for Concrete Repairs.

TYPICAL USES

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

- Vertical and overhead repairs
- Parking structures & bridges
- Water and wastewater treatment facilities
- Marine structures, tunnels, and dams
- Above and below grade applications

HANDLING CHARACTERISTICS/FEATURES

- Single-component for easy mixing and handling.
- Excellent freeze-thaw resistance for difficult climates.
- Polymer modified with fiber reinforcement.
- Contains an integral corrosion inhibitor.
- Low permeability helps protect rebar from corrosion.
- High bond strength provides excellent adhesion.
- Apply coatings after 6 hours at 70 °F (21 °C).

TYPICAL PROPERTIES

Test Method	Test Property	Values
ASTM C109M 2" (50 mm) cubes	Compressive Strength	3 hours 2,000 psi (13.8 MPa) 1 day 3,000 psi (20.7 MPa) 7 days 4,500 psi (31.0 MPa) 28 days 6,000 psi (41.4 MPa)
ASTM C496	Split Tensile Strength	28 days > 400 psi (2.8 MPa)
ASTM C348	Flexural Strength	7 days > 500 psi (3.4 MPa) 28 days > 600 psi (4.1 MPa)
ASTM C882	Bond Strength	7 days > 1,400 psi (9.7 MPa) 28 days > 1,800 psi (12.4 MPa)
ASTM C157M*	Length Change	28 days 0.020%
	Unit Weight	~120 lb/ft ³ (1922 kg/m ³)
	Approximate Set Times	Initial Set 20 minutes Final Set 35 minutes

PACKAGING & STORAGE

OmniCrete VO is packaged in unit sizes as follows:

46 lb (21 kg) bag

Yield – 46 lb (21 kg) unit: 0.45 ft³ (0.013 m³) per unit when mixed with 1 gal (3.8 L) of potable water.

Properly stored, OmniCrete VO has a shelf life of 12 months in original unopened package. Refer to the date of manufacture printed on the label.

SPECIFICATION GUIDE

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

APPLICATION GUIDELINES ENVIRONMENTAL CONDITIONS

For optimum results, condition material to 65 to 85 °F (18 to 29 °C) at least 24 hours prior to use. The minimum application temperature is 45 °F (7 °C) and rising at time of application.

JOBSITE STORAGE OF MATERIALS

Proper storage of Blome International products is important to a successful application. Follow these general storage procedures:

1. Store components, unopened, at 50-85°F, out of direct sunlight and protected from the elements.
2. Keep away from heat and flame. For the 24 to 48 hours just prior to use, adjust the storage temperature to 65-85°F to facilitate handling.
3. Powder must be kept dry prior to use.

SURFACE PREPARATION

The following recommendations generally apply to the proper surface preparation of concrete for OmniCrete VO 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 46 lb. (21 kg) units may be mixed with a drill and "jiffy" mixer. A paddle type mortar mixer may be used for large jobs.

MIXING AND APPLICATION

1. One 46 lb. (21 kg) unit requires 0.9 to 1.0 gal (3.40 to 3.79 L) of potable water. All materials should be in the proper temperature range of 65 to 85 °F (18 to 29 °C):.
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. Mix for 3 to 5 minutes. Do not retemper. Do not mix more material than can be placed within 15 minutes.

PLACING MIXED MATERIAL

1. Ambient and surface temperatures should be at least 45 °F (7 °C). Working time at 72 °F (22 °C) is approximately 10 to 15 minutes. After mixing, place the mortar into the prepared area to be repaired.
2. Work the material firmly into the bottom and sides of the repair area to ensure good adhesion.
3. OmniCrete VO should be placed in 1/8" to 4" (3 to 100 mm) lifts. If placing overhead, maximum depth per lift is 2" (5 cm). If multiple lifts are to be applied, score the previous lift after placing to provide a suitable surface for mechanically bonding subsequent lifts.
4. Finish the repair material to the desired texture. Do not add water to the surface during the finishing operation.

CURING/SEALING

Curing is required. Proper curing procedures are important to ensure the durability and quality of the repair. For best results cure with wet burlap, plastic, or a water-based curing compound. Do NOT use a solvent based curing compound on this product. If a curing compound is not desired, wet cure for a minimum of three days. When curing OmniCrete VO in water vessels, it is recommended to wet cure for 3 days, followed by 4 days of air cure prior to filling the vessel.

CLEAN-UP

Clean tools and equipment with water before the material hardens..

CAUTION

OmniCrete VO 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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