



Surrounding You with Exceptional Protection

OmniCrete SCC **Self-Consolidating Concrete Repair Mortar**

PRODUCT DESCRIPTION

OmniCrete SCC is a versatile, one component, self-consolidating concrete mix that is shrinkage-compensated, silica fume enhanced, polymer and microfiber modified and contains an integral corrosion inhibitor. It is designed for horizontal and formed vertical/overhead structural repairs in applications from 1 inch (2.5 cm) to full depth.

TYPICAL USES

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

- Parking decks
- Joint repairs
- Balconies
- Equipment bases
- Pavements
- Beams
- Vertical and overhead formed repairs

HANDLING CHARACTERISTICS/FEATURES

- Shrinkage compensation and reduction to minimize cracking
- Pre-mixed with pea gravel, ready-to-use
- Low permeability with excellent freeze-thaw resistance
- Polymer and microfiber modified
- Silica fume enhanced
- Interior or exterior use
- Contains an integral corrosion inhibitor
- Long working time

PACKAGING & STORAGE

OmniCrete SCC is packaged in unit sizes as follows:

50 lb (22.7 kg) bag

Yield – 50 lb (22.7 kg) unit: 0.38 ft³ per unit when mixed with 0.5 gallons (1.9 L) of potable water.

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

SPECIFICATION GUIDE

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

APPLICATION GUIDELINES ENVIRONMENTAL CONDITIONS

For optimum results, condition material to 60 to 90 °F (15 to 32 °C) at least 24 hours prior to use. The minimum application temperature is 45 °F (7 °C) and rising at time of application.

TYPICAL PROPERTIES

Test Method	Test Property	Values
ASTM C39	Compressive Strength 3" x 6" cylinder @ 0.5 gal/50 lb bag (1.90 L/22.7 kg bag)	1 day..... 2,750 psi (19 MPa) 3 days..... 4,100 psi (28 MPa) 7 days..... 4,800 psi (33 MPa) 28 days..... 5,600 psi (39 MPa)
ASTM C666 Procedure A	Freeze/Thaw Resistance	300 cycles . . . > 98% relative dynamic modulus
ASTM C1012	Sulfate Resistance	6 months +0.023%
FM 5-578	Surface Resistivity	28 days..... 37.7 kΩ-cm
ASTM C78	Flexural Strength	1 day..... 450 psi (3.1 MPa) 3 days..... 800 psi (5.5 MPa) 7 days..... 900 psi (6.2 MPa)
ASTM C1202	Rapid Chloride Permeability	28 days < 1500 coulombs
ASTM C157*	Length Change	28 day shrinkage..... < 0.065%
ASTM C1611	Slump Flow	Initial 24 - 33 inches (61 to 84 cm) 30 minutes 24 - 33 inches (61 to 84 cm)
ASTM C1621	J-Ring Slump Flow	25 inches (63 cm) Passing Ability: 2.5 inch (6.4 cm) no visible blocking
ASTM C403	Set Time	Initial approximately 6 hours
ASTM C138	Fresh Wet Density	Approx. 143 lb/ft ³ (2,291 kg/m ³)
ASTM C882	Slant Shear Bond Strength	7 days..... 2,800 psi (23.4 MPa) 28 days..... 3,200 psi (26.8 MPa)
ASTM C1581	Crack Resistance	Net Time Until Cracking . . . No cracking after 28 days Stress Rate..... 1.2 psi/day (0.01 MPa/day) Potential for Cracking Low

*Based on 50% RH @ 23 °C (73 °F) (3" x 3" x 11" beam specimens were removed from molds @ 24 hours)

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 50-90°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 60-90°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 SCC 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” mixer. A paddle type mortar mixer may be used for large jobs. Use a horizontal shaft, paddle type mortar mixer for mixing multiple bags simultaneously.

MIXING AND APPLICATION

1. One 50 lb. (22.7 kg) unit requires 0.5 gal (1.9 L) of potable water.. All materials should be in the proper temperature range of 60 to 90 °F (15 to 32 °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.

PLACING MIXED MATERIAL

1. Pump or pour product immediately after mixing. Vibration is typically not required, but form vibration can be used to ensure proper consolidation in situations which restrict flowability. If vibration is used, do not vibrate in excess as this can lead to segregation of the aggregate. When placing material, refer to ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete.
2. Do not use material at temperatures below 45 °F (7 °C).
3. Keep repair from freezing until a minimum strength of 3,000 psi is reached.
4. Do not extend with aggregate.
5. Do not use as an unbonded topping.
6. When necessary, follow the recommendations in ACI 305R “Guide to Hot Weather Concreting” or ACI 306R “Guide to Cold Weather Concreting”.

CURING/SEALING

Curing is required. For best results, cure exposed surfaces of OmniCrete SCC with a water-based, high-solids curing compound. In hot, windy, or direct sunlight situations, re-wet the surface after the curing compound has dried and cover with polyethylene for a minimum of three days. If a curing compound is not desired, wet cure for a minimum of three days).

CLEAN-UP

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

CAUTION

OmniCrete SCC 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.