HORIZONTAL & VERTICAL (FORM AND POUR) REPAIR

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# EUCOREPAIR SCC

## SELF-CONSOLIDATING CONCRETE REPAIR MORTAR

EUCLID CHEMICAL

### PACKAGING

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

Bulk bags suitable for mixing in ready-mix trucks available (MTO)

### APPROXIMATE YIELD

**50 lb (22.7 kg) unit:** 0.375 ft³ (0.01 m³) per unit when mixed with 0.5 gallons (1.9 L) of potable water.

### MINIMUM/MAXIMUM APPLICATION THICKNESS

1 inch (2.5 cm) to full depth

### CLEAN UP

Clean tools and equipment with water before the material hardens.

### SHELF LIFE

1 year in original, unopened package

### SPECIFICATIONS/COMPLIANCES

- NSF/ANSI/CAN Standard 61

## DESCRIPTION

EUCOREPAIR SCC is a versatile, one component, self-consolidating repair mortar that is shrinkage-compensated, 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.

## PRODUCT CHARACTERISTICS

### FEATURES/BENEFITS

- 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
- Interior or exterior use
- Contains an integral corrosion inhibitor
- Long working time

### COMMON METHODS

- Trowelable (horizontal applications)
- Pumpable
- Form and pour

### PRIMARY APPLICATIONS

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

The following coverage rates are approximations based on yield of a 50 lb (22.7 kg) unit mixed at standard consistency.

| Application Thickness - inches (mm) | 1 (25) | 1 1/2 (38) | 2 (51) | 3 (76) | 4 (102) | 6 (152) |
|---|---|---|---|---|---|---|
| Coverage Area per Unit - ft² (m²) | 4.4 (0.41) | 2.9 (0.27) | 2.2 (0.20) | 1.4 (0.13) | 1.1 (0.10) | 0.7 (0.07) |

## TECHNICAL INFORMATION

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

| Test Method | Test Property | Values |
|---|---|---|
| ASTM C39 | Compressive Strength<br>3" x 6" cylinder<br>@ 0.5 gal/50 lb bag<br>(1.90 L/22.7 kg bag) | 1 day . . . . . 2,750 psi (19 MPa)<br>3 days . . . . . 4,100 psi (28 MPa)<br>7 days . . . . . 4,800 psi (33 MPa)<br>28 days . . . . . 5,600 psi (39 MPa) |
| ASTM C666<br>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)<br>3 days . . . . . 800 psi (5.5 MPa)<br>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)<br>30 minutes . . . . 24 - 33 inches (61 to 84 cm) |
| ASTM C1621 | J-Ring Slump Flow | 25 inches (63 cm)<br>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)<br>28 days . . . . . 3,200 psi (26.8 MPa) |
| ASTM C1581 | Crack Resistance | Net Time Until Cracking . . . No cracking after 28 days<br>Stress Rate . . . . . 1.2 psi/day (0.01 MPa/day)<br>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)

## DIRECTIONS FOR USE

**Surface Preparation:** Concrete surfaces must be structurally sound, free of loose or deteriorated concrete and free of dust, dirt, paint, efflorescence, oil and all other contaminants. Mechanically abrade the surface to achieve a surface profile of at least CSP 5-7 in accordance with ICRI Guideline 310.2. Properly clean profiled area.
Substrate shall be saturated surface dry (SSD) without standing water.
**Formwork:** For building forms, refer to ACI 347R - Guide to Formwork for Concrete. Forms should be filled with water 24 hours prior to placement of EucoRepair SCC to ensure tightness and adequate saturation. Ensure forms are completely drained before pouring of product and any drainage outlets are sealed.
**Priming & Bonding (Saw Cut & Chipped Out Repairs, Form & Pour Repairs):** Thoroughly clean any exposed reinforcing steel, and apply DURALPREP A.C. to the concrete and the reinforcing steel within the repair area. Refer to the DURALPREP A.C. technical data sheet for full instructions. Alternatively, application of EUCOWELD 2.0 to a dry substrate or a scrub coat of EUCOREPAIR SCC to the saturated surface dry (SSD) concrete surface may be used for bonding. The repair material must be placed on the scrub coat before the scrub coat dries out.
**Mixing:** All materials should be in the proper temperature range of 60 °F (15 °C) to 90 °F (32 °C). Single 50 lb (22.7 kg) bags may be mixed with a drill and "jiffy" mixer. Use a horizontal shaft, paddle type mortar mixer for mixing multiple bags simultaneously. Add the appropriate amount of water, 0.45 - 0.50 gal (1.7 - 1.9 L) per bag, for the batch size and then add the dry product. Mix a minimum of 3 minutes. **Mixing Bulk Bags:** Add approximately 80% of the appropriate water for the batch size to the ready-mix concrete truck. Fully open the top of the bulk bag. Position the bulk bag over the truck opening using a forklift or crane. While the drum is turning at slow speed, cut the bottom of the bulk bag to release contents into truck. Use the remaining mix water to wash down any dry, stuck material into the drum. Mix for a minimum of 5 minutes after last bulk bag is added. Reverse drum and check consistency. Note: It is recommended to keep 50 lb (22.7 kg) bags on hand to adjust consistency if needed. The mixed product should be transported to the repair area and placed immediately.
**Placement:** 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.
**Curing and Sealing:** Curing is required. For best results, cure exposed surfaces of EUCOREPAIR SCC with a water-based, high-solids curing compound such as DIAMOND CLEAR VOX OR SUPER DIAMOND CLEAR VOX. 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.

## PRECAUTIONS/LIMITATIONS

- Do not use material at temperatures below 45 °F (7 °C).
- Keep repair from freezing until a minimum strength of 1,000 psi (6.90 MPa) is reached.
- Do not extend with aggregate.
- Do not use as an unbonded topping.
- When necessary, follow the recommendations in ACI 305R "Guide to Hot Weather Concreting" or ACI 306R "Guide to Cold Weather Concreting".
- If quick turnaround for application of an impermeable coating (such as epoxy) is desired, use EUCOREPAIR SCC FAST instead.
- In all cases, consult the Safety Data Sheet before use.