HORIZONTAL & VERTICAL (FORM AND POUR) REPAIR

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EUCOCRETE

HIGH PERFORMANCE CONCRETE WITH CORROSION INHIBITOR

EUCLID CHEMICAL

PACKAGING

50 lb (22.7 kg) bags
Code: 065C 50

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

APPROXIMATE YIELD

50 lb (22.7 kg) unit: 0.37 ft^3 (0.01 m^3) per unit when mixed with 0.5 gallons (1.9 L) of potable water.

Extended: 0.46 ft^3 (0.013 m^3) per unit when extended with 15 lbs (6.8 kg) of pea gravel. See full extending instructions under "Directions for Use".

MINIMUM/MAXIMUM APPLICATION THICKNESS

Neat: 1 to 6 inches (2.5 to 15 cm)
Extended: 6 inches (15 cm) or more

CLEAN UP

Clean tools and equipment with water before the material hardens.

SHELF LIFE

2 years in original, unopened package

SPECIFICATIONS AND COMPLIANCES

- Canadian Food Inspection Agency compliant

DESCRIPTION

EUCOCRETE is a versatile, single component, microsilica modified repair mortar that contains an integral corrosion inhibitor for concrete repair projects of all types. Requiring only the addition of water, EUCOCRETE is a high strength material with an extended working time for ease of placement. It is similar in appearance to concrete and is suitable for use as a topping or repair mortar concrete structures from 1" (2.5 cm) to full depth.

PRODUCT CHARACTERISTICS

FEATURES/BENEFITS

- Microsilica modified for high strength
- Pre-mixed with pea gravel, ready-to-use
- Low permeability with excellent freeze-thaw resistance
- Long working time
- Interior or exterior
- Contains an integral corrosion inhibitor

COMMON METHODS

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

PRIMARY APPLICATIONS

- Parking decks
- Joint repairs
- Balconies
- Equipment bases
- Pavements
- Beams
- Vertical & overhead form & pour repairs

APPEARANCE

EUCOCRETE is a free-flowing powder designed to be mixed with water. After mixing and placing, the color may initially appear somewhat darker than the surrounding concrete. While this color will lighten up substantially as the concrete cures and dries out, the repair may always appear slightly darker than the surrounding concrete.

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

Application Thickness (inches)	1	1 1/2	2	3	4	6
Coverage Area per Unit (ft^2)	4.4	2.9	2.2	1.4	1.1	0.7

TECHNICAL INFORMATION

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

Test Method	Test Property	Values
ASTM C109	Compressive Strength 2" (50 mm) cubes @ 0.5 gal/50 lb bag	1 day . . . . . 5,000 psi (34.5 MPa) 7 days . . . . . 6,500 psi (44.8 MPa) 28 days . . . . . 8,500 psi (58.6 MPa)
ASTM C39	Compressive Strength 3" x 6" cylinder @ 0.5 gal/50 lb bag	1 day . . . . . 4,500 psi (31.0 MPa) 7 days . . . . . 6,500 psi (44.8 MPa) 28 days . . . . . 8,000 psi (55.2 MPa)
ASTM C666 Procedure A	Freeze/Thaw Resistance	300 cycles . . . 96% relative dynamic modulus
ASTM C1012	Sulfate Resistance	6 months . . . . . + 0.028%
ASTM C348	Flexural Strength	7 days . . . . . 900 psi (6 MPa) 28 days . . . . . 1,050 psi (7 MPa)
ASTM C1202	Rapid Chloride Permeability	28 days . . . . . 1200 coulombs
ASTM C157*	Length Change	28 days . . . . . .- 0.073%
	Working Time	2 hrs 30 mins
	Consistency	Initial slump . . . . . .10 inches (254 mm) 30 minute slump . . . . 9.5 inches (241 mm) 1 hour slump . . . . . 9 inches (229 mm)
ASTM C403	Set Time	Initial . . . . . .approximately 3 hours Final. . . . . .approximately 4 hours
	Volumetric Resistivity	28 days . . . . . .15,400 ohm-cm

*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.

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 EUCOCRETE 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: 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 - 1.9L) per bag, for the batch size and then add the dry product. Mix a minimum of 3 minutes. Mix an additional 2 minutes after adding extra water. If additional pea gravel is to be added, mix an additional 2 to 3 minutes. For deeper repairs over 6" (15 cm), extend Eucocrete with 15 lb (6.8 kg) of clean, SSD, 3/8" (9.5 mm) rounded pea gravel (#8, ASTM C33). The pea gravel must be dense and non-absorbtive per ASTM C127 and non-reactive (ASR) per ASTM C227, C289 and C1260.

Mixing Bulk Bags: Add the additional pea gravel, if desired, and 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: To make repairs, spread with a trowel, come-a-long, or square tipped shovel to a thickness that matches the surrounding concrete. **Note:** On large floor areas, use screed strips as guides in combination with vibratory screeding to level. Compact and finish by hand or machine trowel.

Finishing: This product is designed for finishing with a float or broom appearance. A steel trowel finish may be applied but timing of the final trowel is critical and the contractor may have difficulty achieving a smooth finish over a large area. Do not add water to the surface during the finishing operation; use EUCOBAR evaporation retarder.

Curing and Sealing: To prevent surface cracking, cure the repair with a high-solids curing compound from The Euclid Chemical Company. 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).
- All materials should be stored in the proper temperature range of 60 °F (15 °C) to 90 °F (32 °C).
- When necessary, follow the recommendations in ACI 305R "Guide to Hot Weather Concreting" or ACI 306R "Guide to Cold Weather Concreting".
- No heavy traffic until the product has fully cured.
- Keep repair from freezing until a minimum strength of 1,000 psi (6.90 MPa) is reached.
- EUCOCRETE requires a primer/bond coat and proper curing.
- In all cases, consult the Safety Data Sheet before use.