



EUCOCRETE

High-Performance Concrete with Corrosion Inhibitor

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.

Primary Applications

- Parking decks
- Joint repairs
- Balconies
- Equipment bases
- Floor toppings
- Pavements
- Beams
- Vertical/Overhead form & pour jobs

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
- Compatible with galvanic anodes
- Interior or exterior
- Contains an integral corrosion inhibitor
- Can contribute to LEED points

Technical Information

Typical Engineering Data @ 70°F (21°C)

Compressive Strength ASTM C 109, 2" (50 mm) cubes
@ 0.5 gal/50 lb bag.

Age	Strength
1 day.....	5,000 psi (35 MPa)
7 days.....	8,800 psi (61 MPa)
28 days.....	9,750 psi (67 MPa)
56 days.....	10,000 psi (69 MPa)

Compressive Strength ASTM C 39, 3"x6" cyl.
@ 0.5 gal/50 lb. bag.

1 day.....	4,500 psi (31 MPa)
7 days.....	7,000 psi (48 MPa)
28 days.....	8,500 psi (59 MPa)
56 days.....	8,900 psi (61 MPa)

Freeze/Thaw Resistance ASTM C 666 Procedure A
300 cycles 99% relative dynamic modulus

Sulfate Resistance ASTM C 1012

28 days.....	+0.006%
6 months.....	+0.016%
12 months.....	+0.018%

Volumetric Resistivity.....15,400 Ω/cm

Flexural Strength ASTM C 348

7 days.....	900 psi (6 MPa)
28 days.....	1,050 psi (7 MPa)

Rapid Chloride Permeability ASTM C 1202

28 days.....	718 coulombs
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Length Change ASTM C 157, 50% RH @ 23°C (73°F)
(specimens were removed from molds @ 24 hours)

28 days.....	-0.072%
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Working Time2 hrs 30 min

Consistency:

Initial slump.....	10" (254 mm)
30 minute slump.....	9.5" (241 mm)
1 hour slump.....	9" (229 mm)

Set Time ASTM C 403

Initial.....	approx. 3 hrs
Final.....	approx. 4 hrs

Unit Weight.....146.41 lb/ft³ (2345.49 kg/m³)

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.

Packaging/yield

EUCOCRETE is packaged in 50 lb (22.7 kg) bags. **Yield:** 0.37 ft³ (0.01m³) per bag when mixed with 0.5 gal (1.9 L) of water. Bulk bags suitable for mixing in ready-mix trucks are also available.

Specifications/Compliances

Canadian Food Inspection Agency

Shelf Life

2 years in original, unopened package

Coverage

One unit of EUCOCRETE will cover approximately 4.5 ft² (0.42 m²) when placed at an average depth of 1" (2.5 cm). EUCOCRETE may be extended with up to 15 lb (6.8 kg) of 3/8" (9.5 mm) pea gravel for placements over 6" (15 cm), which will yield 0.46 ft³ (0.013 m³). This may alter certain engineering properties.

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:** Clean and prime exposed steel with DURALPREP AC. Concrete should be primed with a spray or brush coat of DURALPREP AC. Alternately, a Saturated Surface Dry (SSD) concrete surface can be primed with a scrub coat of EUCOCRETE. The repair must be made before the scrub coat dries out.

Mixing: Single bags may be mixed with a drill and "jiffy" mixer. Use a paddle type mortar mixer for large jobs. All materials should be in the proper temperature range of 60°F (15°C) to 90°F (32°C). 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. If additional pea gravel is to be added, mix an additional 2 to 3 minutes. 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.

Clean-Up

Clean tools and equipment with water before the material hardens.

Precautions/Limitations

- Do not use material at temperatures below 45°F (7°C).
- 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.

Rev. 6.15

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