EUCOCRETE

High-Performance Concrete with Corrosion Inhibitor

EUCLID CHEMICAL

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 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

- 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 @ 21°C

Compressive Strength ASTM C 109, 50 mm cubes @ 1.9 L / 22.7 kg per bag

Age	Strength
1 day	35 N/mm²
7 days	61 N/mm²
28 days	67 N/mm²
56 days	69 N/mm²

Compressive Strength ASTM C 39, 3”x6” cyl. @ 1.9 L / 22.7 kg per bag

1 day	31 N/mm²
7 days	48 N/mm²
28 days	59 N/mm²
56 days	61 N/mm²

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	6 N/mm²
28 days	7 N/mm²

Rapid Chloride Permeability ASTM C 1202
28 days.....718 coulombs

Length Change ASTM C 157, 50% RH @ 23°C
(specimens were removed from moulds @ 24 hours)
28 days.....-0.072%

Working Time.....2 hrs 30 min

Consistency:

Initial slump	254 mm
30 minute slump	241 mm
1 hour slump	229 mm

Set Time ASTM C 403

Initial	approx. 3 hrs
Final	approx. 4 hrs
Unit Weight	2,345.49 kg/m³

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

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Packaging / Yield

EUCOCRETE is packaged in 25kg bags. Yield: 11L per bag when mixed with 2.1L of water. Bulk bags suitable for mixing in ready-mix trucks are also available.

Specifications / Compliances

Canadian Food Inspection Agency

Coverage

One unit of **EUCOCRETE** will cover approximately 0.42 m^2 when placed at an average depth of 2.5 cm. **EUCOCRETE** may be extended with up to 6.8 kg of 9.5 mm pea gravel for placements over 15 cm, which will yield 14L. 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 15°C to 32°C. Add the appropriate amount of water, 1.9 - 2.1L 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 7°C.
- No heavy traffic until the product has fully cured.
- Keep repair from freezing until a minimum strength of 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: 22/03/17