



EUCLID CHEMICAL

EUCOCRETE SUPREME

Polymer Modified, High Performance Concrete with Corrosion Inhibitor

Description

EUCOCRETE SUPREME is a versatile, single-component, latex and microsilica modified, repair mortar containing a migratory corrosion inhibitor, designed to provide protection from corrosion for repair projects of all types. Requiring only the addition of water, EUCOCRETE SUPREME is a high strength material which is easy to use 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 on horizontal surfaces and formed vertical and overhead repairs.

Primary Applications

- Parking decks
- Joint repairs
- Balconies
- Equipment bases
- Pavements
- Beams
- 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
- Contains an integral corrosion inhibitor
- Applications from 1" (2.5 cm) to full depth
- Interior or exterior
- Form and pour repairs

Technical Information

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

Compressive Strength ASTM C109, 2" (50 mm) cubes
@ 0.5 gal/50 lb bag.

Age	Strength
1 day.....	4,200 psi (30 MPa)
7 days.....	7,250 psi (50 MPa)
28 days.....	10,300 psi (71 MPa)

Compressive Strength ASTM C39, 3"x 6' cyl.
@ 0.5 gal/50 lb bag.

1 day.....	4,530 psi (31 MPa)
7 days.....	6,820 psi (47 MPa)
28 days.....	8,500 psi (59 MPa)

Flexural Strength ASTM C348

7 days.....	950 psi (6.6 MPa)
28 days.....	1,050 psi (7.2 MPa)

Rapid Chloride Permeability ASTM C1202

28 days.....	437 coulombs
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Freeze/Thaw Resistance ASTM C666 Procedure A

300 Cycles.....	81% relative dynamic modulus
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Unit Weight.....approx. 145.0 lb/ft³ (2,323 kg/m³)

Consistency, Slump Cone>9" (229 mm)

Set Time ASTM C403

Initial	approx. 6 hr
Final.....	approx. 7 hr

Volumetric Resistivity

28 days	34,275 ohm-cm
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EUCOCRETE SUPREME 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 SUPREME 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.

Shelf Life

2 years in original, unopened package

Coverage

One unit of EUCOCRETE SUPREME will cover approximately 4.5 ft² (0.42 m²) when placed at an average thickness of 1" (2.5 cm).

EUCOCRETE SUPREME may be extended with up to 15 lb (6.8 kg) of clean, SSD (saturated surface dry), 3/8" (9.5 mm) pea gravel for placements over 6" (15 cm), which will yield 0.46 ft² (0.013 m²).

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 equal to 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 SUPREME 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 - 1.9L) 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. **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: For patching, 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. 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 curing and sealing compound from The Euclid Chemical Company, or cure a minimum of three days with a moisture retaining covering, such as polyethylene film. In hot, windy or direct sunlight situations, re-wet the surface and cover with a moisture retaining covering.

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).
- 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.
- In all cases, consult the Safety Data Sheet before use.

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