



EUCLID CHEMICAL

# EucoRepair V100

Single-Component, Low Shrinkage, Vertical/Overhead Repair Mortar

## Description

EUCOREPAIR V100 is a single-component, quick-setting, low shrinkage repair mortar formulated with unique polymers and fiber reinforcement for trowel applied vertical and overhead repairs requiring high performance.

## Primary Applications

- Vertical and overhead repairs
- Resurfacing of damaged/deteriorated concrete
- Marine structures, tunnels and dams
- Parking structures & bridges
- Above and below grade applications

## Features/Benefits

- Single-component for easy mixing and handling
- Excellent freeze-thaw resistance for difficult climates
- Polymer modified with fiber reinforcement
- Contains an integral corrosion inhibitor
- Low permeability helps protect rebar from corrosion
- High bond strength provides excellent adhesion

## Technical Information

Typical Engineering Data @ 75°F (24°C), 50% RH

Property	Results
Compressive Strength ASTM C 109 modified, 2" (5 cm) cubes, psi (MPa)	3 hours 2,000 (13.8)
	1 day 3,000 (20.7)
	7 days 4,500 (31.0)
	28 days 6,000 (41.4)
Split Tensile Strength ASTM C 496, psi (MPa)	1 day >200 (1.4)
	7 days >250 (1.7)
	28 days >400 (2.8)
Flexural Strength ASTM C 348, psi (MPa)	1 day >400 (2.8)
	7 days >500 (3.4)
	28 days >600 (4.1)
Bond Strength ASTM C 882, psi (MPa)	7 days >1,400 (9.7)
	28 days >1,800 (12.4)
Modulus of Elasticity ASTM C 469, psi (MPa)	28 days 2.65 x 10 <sup>6</sup> (1.83 x 10 <sup>4</sup> )
Length Change ASTM C 157 modified (3"x3"x11.25" specimens)	28 days -0.020%
Unit Weight	~ 120 lb/ft <sup>3</sup> (1,922 kg/m <sup>3</sup> )
Set Times	Initial: ~ 20 min. Final: ~ 35 min.

**Appearance:** EucoRepair V100 is a free-flowing powder designed to be mixed with water. After mixing and placing, the color may appear darker than the surrounding concrete. While this color will lighten as the EucoRepair V100 cures and dries out, the repair may always appear darker than the surrounding concrete.

## Packaging/Yield

EucoRepair V100 is packaged in 46 lb (21 kg) moisture resistant bags. **Yield:** 0.45 ft<sup>3</sup> (0.013 m<sup>3</sup>) per bag when mixed with 1 gal (3.79 L) of water.

## Coverage

One unit of EucoRepair V100 will cover approximately 10.5 ft<sup>2</sup> (1.0 m<sup>2</sup>) when placed at an average depth of 1/2" (13 mm).

## Shelf Life

1 year in original, unopened package

## 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:** Clean and prime exposed steel with DURALPREP AC. Concrete should be primed with a spray or brush coat of DURALPREP AC. The primer coat of DURALPREP AC must be allowed to thoroughly dry prior to the application of EucoRepair V100. Alternately, a Saturated Surface Dry (SSD) concrete surface can be primed with a scrub coat of EucoRepair V100. The repair must be made before the scrub coat dries out.

**Mixing:** Single bags may be mixed with a drill and "jiffy" type mixer. Use a paddle type mortar mixer for large jobs. All materials should be in the proper temperature range of 60°F (16°C) to 90°F (32°C). Add the appropriate amount of water, 0.9 to 1 gal (3.40 to 3.79 L)/bag into a clean mixing vessel, then add the dry product. Mix for 3 to 5 minutes. Do not mix more material than can be placed within 15 minutes.

**Placement:** Place in 1/8" to 4" (3 to 100 mm) lifts for vertical surfaces and 1/8" to 2" (3 to 50 mm) lifts for overhead applications. Trowel into place and allow to reach final set before the next lift. If additional lifts are required, score the surface of the placed mortar before it reaches final set.

**Finishing:** Finish the repair material to the desired texture. Do not add additional water to the surface during the finishing operation. Use EUCOBAR evaporation retarder.

**Curing and Sealing:** Curing is required. Cure with a Euclid Chemical high solids, water-based curing compound. (NOTE: A SOLVENT BASED CURING COMPOUND SHOULD NOT BE USED ON THIS PRODUCT). Under hot, windy or direct sunlight situations, apply a second coat of curing compound after the first has dried. 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 allow repairs to freeze until the material has reached a minimum of 1,000 psi (7 MPa) compressive strength.
- In adverse temperatures, follow ACI recommendations for hot/cold weather concrete practices.
- Use only potable water for mixing.
- Minimum application thickness 1/8" (3 mm).
- Minimum surface and ambient temperature 45°F (7°C) and rising at time of application.
- For optimum results, condition material to 65°F to 85°F (18°C to 29°C) at least 24 hours prior to use.
- Do not use a solvent based curing compound on this product.
- In all cases, consult the Safety Data Sheet before use.

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