



EUCOREPAIR V100

**LOW SHRINKAGE, FIBER REINFORCED, NSF/ANSI STANDARD 61
CERTIFIED VERTICAL & OVERHEAD REPAIR MORTAR**

EUCLID CHEMICAL

DESCRIPTION

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

PRIMARY APPLICATIONS

- Vertical and overhead repairs
- Marine structures, tunnels, and dams
- Parking structures & bridges
- Above and below grade applications
- Water and wastewater treatment facilities

FEATURES/BENEFITS

- Single-component for easy mixing and handling
- Contains an integral corrosion inhibitor
- Excellent freeze-thaw resistance for difficult climates
- Low permeability helps protect rebar from corrosion
- Polymer modified with fiber reinforcement
- High bond strength provides excellent adhesion
- NSF/ANSI Standard 61 certified
- Apply coatings after 6 hours at 70°F (21°C)

TECHNICAL INFORMATION

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

| PROPERTY | RESULTS |
|--|---|
| Compressive Strength ASTM C109 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 C496, psi (MPa) | 28 days >400 (2.8) |
| Flexural Strength ASTM C348, psi (MPa) | 7 days >500 (3.4) |
| | 28 days >600 (4.1) |
| Bond Strength ASTM C882, psi (MPa) | 7 days >1,400 (9.7) |
| | 28 days >1,800 (12.4) |
| Length Change ASTM C157 modified (3"x3"x11.25" specimens) | 28 days -0.020% |
| Unit Weight | ~ 120 lb/ft ³ (1,922 kg/m ³) |
| 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 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, and 46 lb (21 kg) pails. **Yield:** 0.45 ft³ (0.013 m³) per 46 lb (21 kg) bag/pail when mixed with 1 gal (3.79 L) of water.

SHELF LIFE

1 year in original, unopened package

SPECIFICATIONS/COMPLIANCES

EUCOREPAIR V100 is NSF/ANSI Standard 61 certified for use with potable water

COVERAGE

One unit of EUCOREPAIR V100 will cover approximately 10.5 ft² (1.0 m²) when placed at an average depth of 1/2" (13 mm).

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): 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 EUCOREPAIR V100 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.

Priming & Bonding (Vertical & Overhead Skim Coats/Toppings): Apply EUCOWELD 2.0 to a dry substrate or a scrub coat of EUCOREPAIR V100 to the saturated surface dry (SSD) concrete surface. The repair material must be placed on the scrub coat before the scrub coat dries out.

Mixing: For optimum results, condition material to be mixed to 65°F to 85°F (18°C to 29°C) at least 24 hours prior to use. Single bags may be mixed with a drill and "jiffy" type mixer. Use a paddle type mortar mixer for large jobs. 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: Do not apply to surfaces or in ambient temperatures below 45°F (7°C). 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. When curing EUCOREPAIR V100 in potable water vessels, it is recommended to wet cure for 3 days, followed by 4 days of air cure prior to filling the vessel.

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.
- Do not use as a horizontal topping.
- Do not add admixtures or aggregate extension.
- When necessary, follow the recommendations in ACI 305R "Guide to Hot Weather Concreting" or ACI 306R "Guide to Cold Weather Concreting".
- 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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