



EUCLID CHEMICAL

EXPRESS REPAIR

RAPID-SETTING REPAIR MORTAR WITH CORROSION INHIBITOR

DESCRIPTION

EXPRESS REPAIR is a cement-based, ready to use, rapid strength gaining repair mortar containing an integral corrosion inhibitor. EXPRESS REPAIR is capable of being extended up to 100% with pea gravel. Requiring only the addition of water, EXPRESS REPAIR is easy to use for fast turn-around projects.

PRIMARY APPLICATIONS

Interior and exterior, horizontal concrete repairs on:

- Highways
- Bridge decks
- Parking decks
- Loading docks
- Pavement joints
- Industrial floors

FEATURES/BENEFITS

- Fast setting
- Rapid strength gain
- Contains an integral corrosion inhibitor
- Excellent durability
- Develops tenacious bond
- Compatible with galvanic anodes

TECHNICAL INFORMATION

Material Properties @ 75°F (24°C)

Initial Set, ASTM C 266

Gilmore Needle20 to 30 min

Compressive Strength, ASTM C 109 psi (MPa)

3 hours3,200 (22.0)

24 hours5,800 (40.0)

7 days7,000 (48.3)

28 days10,040 (69.2)

Flexural Strength, ASTM C 348 psi (MPa)

1 day800 (5.5)

7 days1,500 (10.3)

28 days1,700 (11.7)

Volumetric Resistivity13,390 Ω/cm

Split Tensile Strength, ASTM C 496 psi (MPa)

1 day300 (2.1)

7 days550 (3.8)

28 days800 (5.5)

Scaling Resistance ASTM C 672

100 cycles no scaling

Freeze Thaw, Durability Factor ASTM C 666

350 cycles100%

Shrinkage, ASTM C 157

3 days-0.040%

7 days-0.078%

28 days-0.093%

PACKAGING

EXPRESS REPAIR is packaged in 50 lb (22.7 kg) poly-lined bags

SHELF LIFE

18 months in original, unopened package

COVERAGE

One 50 lb (22.7 kg) bag yields approximately 0.42 ft³ (0.01m³) when mixed with 3 qt (2.8 L) of potable water. Extending with 50 lb (22.7 kg) of 3/8" (9.5 mm) pea gravel per bag increases the yield to approximately 0.75 ft³ (0.02 m³).

SPECIFICATIONS/COMPLIANCES

Complies with ASTM C 928 Standard Specification for Packaged, Dry, Rapid-Hardening, Cementitious Materials for Concrete Repair

HORIZONTAL REPAIR

EXPRESS REPAIR

 MASTER FORMAT #:
03 01 30.71

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 A.C. Concrete should be primed with a spray or brush coat of DURALPREP A.C. The primer coat of DURALPREP A.C. must be allowed to thoroughly dry prior to the application of EXPRESS REPAIR. Alternatively, a Saturated Surface Dry (SSD) concrete surface can be primed with a scrub coat of EXPRESS REPAIR. The repair must be made before the scrub coat dries out.

Mixing: EXPRESS REPAIR requires 2.75 to 3 qt (2.6 to 2.8 L) of mix water per 50 lb (22.7 kg) bag. Use a drill with a "jiffy" type mixer for mixing single bags. For larger applications use a paddle type mortar mixer or a standard concrete mixer. Do not add additional water. For repair areas over 1½" (38.1 mm) deep, extend by adding up to 50 lbs (22.7 kg) of 3/8" (9.5 mm) clean, well-graded SSD pea gravel per 50 lb (22.7 kg) of EXPRESS REPAIR. Proper mixing sequence involves first, adding the measured quantity of water to the mortar mixer; second, adding the pea gravel; and third, adding the EXPRESS REPAIR and thoroughly mixing for 2 to 4 minutes. Do not mix longer than 4 minutes.

Application: EXPRESS REPAIR should be mixed, placed and finished within 15 minutes. Place the mixed material into the prepared area to be repaired. Work the material firmly into the bottom and sides of the repair area to ensure good adhesion. Screed and trowel the material level with the existing concrete, and finish the surface as desired. Thickness of EXPRESS REPAIR must be a minimum of ½" (12.7 mm) and a maximum of 1½" (38.1 mm) neat. Repair areas over 1½" (38.1 mm) must be extended or applied in multiple lifts. When applying multiple lifts, allow the initial repair to reach final set, score the surface and then place the subsequent lift. Do not over-trowel or featheredge. Follow ACI guidelines for proper curing. On windy or hot days or when under direct sunlight, wet curing is recommended.

Cold Weather Application: Application at temperatures below 45°F (7°C) extends the set time. Heating the repair area, using warm water for mixing, and tenting or insulating the repair area after application will increase rate of strength development. Do not use direct, unvented heat on the repair after installation.

CLEAN-UP

Clean application tools and mixer with water immediately after use. Hardened EXPRESS REPAIR will be difficult to remove.

PRECAUTIONS/LIMITATIONS

- Do not featheredge, overwork, retemper or over-trowel the patching material.
- Minimum depth of patching is 1/2" (13 mm).
- Do not add any admixtures or bonding agents to EXPRESS REPAIR.
- The repair area should be frost free prior to application.
- Do not apply at temperatures below 35°F or above 90°F (1.7°C or above 32°C).
- Store in covered storage away from all moisture.
- In all cases, consult the Safety Data Sheet before use.

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