

HORIZONTAL REPAIR

Master Format #: 03 01 30.71

EXPRESS REPAIR

RAPID SETTING REPAIR MORTAR WITH CORROSION INHIBITOR



EUCLID CHEMICAL

PACKAGING

50 lb (22.7 kg) bags
Code: TR5000650

APPROXIMATE YIELD

50 lb (22.7 kg) unit: 0.42 ft³ (0.012 m³) per unit when mixed with 3 quarts (2.8 L) of potable water.

Extended: 0.75 ft³ (0.02 m³) per unit when extended with up to 50 lbs (22.7 kg) of pea gravel. See full extending instructions under "Directions for Use".

MINIMUM/MAXIMUM APPLICATION THICKNESS

Neat: 0.5 to 1.5 inches (13 to 38 mm)
Extended: 1 to 3 inches (25 to 76 mm)

CLEAN UP

Clean tools and equipment with water before the material hardens.

SHELF LIFE

18 months in original, unopened package

SPECIFICATIONS AND COMPLIANCES

- ASTM C928 Standard Specification for Packaged, Dry, Rapid-Hardening Cementitious Materials for Concrete Repairs

DESCRIPTION

EXPRESS REPAIR is a cementitious, 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 track projects.

PRODUCT CHARACTERISTICS

FEATURES/BENEFITS

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

PRIMARY APPLICATIONS

- Interior and/or exterior
- Highways
- Bridge decks
- Parking decks
- Loading docks
- Pavement joints
- Industrial floors

The following coverage rates are approximations based on yield of a 50 lb (22.7 kg) unit mixed at standard consistency.

Application Thickness - inches (mm)	1/2 (13)	5/8 (16)	3/4 (19)	1 (25)	1 1/2 (38)
Coverage Area per Unit - ft ² (m ²)	10.0 (0.93)	8.0 (0.74)	6.7 (0.62)	5.0 (0.46)	3.3 (0.31)

TECHNICAL INFORMATION

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

Test Method	Test Property	Values
	Setting Time (Gillmore Needle)	Initial Set 20 to 30 minutes
ASTM C109	Compressive Strength	3 hours. 3,200 psi (22.0 MPa) 1 day. 5,800 psi (40.0 MPa) 7 days 7,000 psi (48.3 MPa) 28 days 9,000 psi (62.1 MPa)
ASTM C348	Flexural Strength	1 day. 800 psi (5.5 MPa) 7 days 1,500 psi (10.3 MPa) 28 days 1,700 psi (11.7 MPa)
	Volumetric Resistivity	13,390 ohm-cm
ASTM C496	Split Tensile Strength	1 day. 300 psi (2.1 MPa) 7 days 550 psi (3.8 MPa) 28 days 800 psi (5.5 MPa)
ASTM C672	Scaling Resistance	25 cycles Rating 2
ASTM C666 Procedure A	Freeze/Thaw Resistance	300 cycles 95%
ASTM C157	Shrinkage	3 days - 0.040% 7 days - 0.078% 28 days - 0.093%

WARRANTY: The Euclid Chemical Company ("Euclid") solely and expressly warrants that its products shall be free from defects in materials and workmanship for one (1) year from the date of purchase. Unless authorized in writing by an officer of Euclid, no other representations or statements made by Euclid or its representatives, in writing or orally, shall alter this warranty. EUCLID MAKES NO WARRANTIES, IMPLIED OR OTHERWISE, AS TO THE MERCHANTABILITY OR FITNESS FOR ORDINARY OR PARTICULAR PURPOSES OF ITS PRODUCTS AND EXCLUDES THE SAME. If any Euclid product fails to conform with this warranty, Euclid will replace the product at no cost to Buyer. Replacement of any product shall be the sole and exclusive remedy available and buyer shall have no claim for incidental or consequential damages. Any warranty claim must be made within one (1) year from the date of the claimed breach. Euclid does not authorize anyone on its behalf to make any written or oral statements which in any way alter Euclid's installation information or instructions in its product literature or on its packaging labels. Any installation of Euclid products which fails to conform with such installation information or instructions shall void this warranty. Product demonstrations, if any, are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. Buyer shall be solely responsible for determining the suitability of Euclid's products for the Buyer's intended purposes.

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 EXPRESS REPAIR 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: One 50 lb (22.7 kg) unit requires 2.75 to 3 qt (2.6 to 2.8 L) of potable water. All materials should be in the proper temperature range of 60 to 90 °F (15 to 32 °C). Single 50 lb (22.7 kg) units may be mixed with a drill and “jiffy” mixer. A paddle type mortar mixer or pan mixer may be used for large jobs. Add the appropriate amount of potable water to a clean mixing vessel, then gradually add the dry product. Do not exceed maximum water or add any additional additives. Mix for 2 to 4 minutes. Do not mixer longer than 4 minutes. Do not retemper. EXPRESS REPAIR should be mixed, placed and finished within 15 minutes.

Extending Instructions (Optional): When extended, EXPRESS REPAIR may be applied in lifts of up to 3” (75 mm). One 50 lb (22.7 kg) unit may be extended by adding 50 lb (22.7 kg) of clean, SSD, 3/8” (9.5 mm) rounded pea gravel (#8, ASTM C33) to the mix. The pea gravel must be dense and non-absorptive per ASTM C127 and non-reactive (ASR) per ASTM C227, C289 and C1260. When extending, mix order should be water, followed by aggregate, followed by EXPRESS REPAIR while following above mix instructions.

Placement: Ambient and surface temperatures should be in the range of 35 to 90 °F (1.7 to 32 °C). Working time at 72 °F (22 °C) is approximately 10 to 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. Do not use EXPRESS REPAIR for repairs less than 0.5” (13 mm) deep. If placing thicker than 1.5” (38 mm), material should be extended or placed in multiple lifts. If multiple lifts are to be applied, score the previous lift after placing to provide a suitable surface for mechanically bonding subsequent lifts.

Cold Weather Placement: 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.

Finishing: Screed and trowel the material level with the existing concrete and finish the surface as desired. Do not over trowel and do not add water to the surface during the finishing operation. When placing under hot and windy conditions, the use of EUCOBAR evaporation retarder is recommended to prevent the loss of surface moisture. Always re-establish floor and slab joints when using this product as a finished surface.

Curing and Sealing: Proper curing procedures are important to ensure the durability and quality of the repair. For best results cure with wet burlap, plastic, or a Euclid Chemical high solids cure and seal.

PRECAUTIONS/LIMITATIONS

- Store in a dry place.
- The application temperature range is 35 °F to 90 °F (1.7 °C to 32 °C).
- The repair area should be free of frost prior to application.
- When necessary, follow the recommendations in ACI 305R “Guide to Hot Weather Concreting” or ACI 306R “Guide to Cold Weather Concreting”.
- Do not featheredge, overwork, retemper or overtrowel the patching material.
- Minimum depth of patching is 1/2” (13 mm).
- In all cases, consult the Safety Data Sheet before use.

Rev. 07.24

WARRANTY: The Euclid Chemical Company (“Euclid”) solely and expressly warrants that its products shall be free from defects in materials and workmanship for one (1) year from the date of purchase. Unless authorized in writing by an officer of Euclid, no other representations or statements made by Euclid or its representatives, in writing or orally, shall alter this warranty. EUCLID MAKES NO WARRANTIES, IMPLIED OR OTHERWISE, AS TO THE MERCHANTABILITY OR FITNESS FOR ORDINARY OR PARTICULAR PURPOSES OF ITS PRODUCTS AND EXCLUDES THE SAME. If any Euclid product fails to conform with this warranty, Euclid will replace the product at no cost to Buyer. Replacement of any product shall be the sole and exclusive remedy available and buyer shall have no claim for incidental or consequential damages. Any warranty claim must be made within one (1) year from the date of the claimed breach. Euclid does not authorize anyone on its behalf to make any written or oral statements which in any way alter Euclid’s installation information or instructions in its product literature or on its packaging labels. Any installation of Euclid products which fails to conform with such installation information or instructions shall void this warranty. Product demonstrations, if any, are done for illustrative purposes only and do not constitute a warranty or warranty alteration of any kind. Buyer shall be solely responsible for determining the suitability of Euclid’s products for the Buyer’s intended purposes.