

## HORIZONTAL REPAIR

Master Format #: 03 01 30.71

# SPEED CRETE 2028

## RAPID SETTING HORIZONTAL REPAIR MORTAR WITH CORROSION INHIBITOR



EUCLID CHEMICAL

### PACKAGING

50 lb (22.7 kg) bags  
Code: TR5104650CI

### APPROXIMATE YIELD

**50 lb (22.7 kg) unit:** 0.42 ft<sup>3</sup> (0.012 m<sup>3</sup>)  
per unit when mixed with 2.5 quarts  
(2.37 L) of potable water.

**Extended:** 0.7 ft<sup>3</sup> (0.02 m<sup>3</sup>) per unit  
when extended with up to 40 lbs (18.1  
kg) of pea gravel. See full extending  
instructions under "Directions for Use".

### MINIMUM/MAXIMUM APPLICATION THICKNESS

Neat: 0.5 to 1.5 inches (1.2 to 3.8 cm)  
Extended: 1 to 3 inches (2.5 to 7.6 cm)

### 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

SPEED CRETE 2028 is a cement-based, ready to use, repair mortar that sets quickly, and achieves rapid strength gain. SPEED CRETE 2028 is a proprietary formulation of blended cements, selected aggregates and it contains an integral corrosion inhibitor.

### PRODUCT CHARACTERISTICS

#### FEATURES/BENEFITS

- Fast-setting, with rapid strength gain
- Very low permeability
- Contains an integral corrosion inhibitor
- Develops a tenacious bond
- Excellent resistance to freeze-thaw conditions and deicing chemicals
- Repair can be coated with an epoxy or urethane after a 24 hour cure

#### PRIMARY APPLICATIONS

- Highways
- Loading docks
- Bridge decks
- Pavement joint repairs
- Parking decks
- Industrial floors

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

Application Thickness (inches)	1/2	5/8	3/4	1	1 1/2
Coverage Area per Unit (ft <sup>2</sup> )	10.0	8.0	6.7	5.0	3.3

## TECHNICAL INFORMATION

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

Test Method	Test Property	Values
ASTM C266	Setting Time	Initial Set . . . . . approximately 20 minutes Final Set . . . . . approximately 50 minutes
ASTM C109	Compressive Strength	3 hours. . . . . 3,000 psi (20.7 MPa) 1 day. . . . . 5,000 psi (34.5 MPa) 7 days . . . . . 6,000 psi (41.4 MPa) 28 days . . . . . 7,000 psi (48.3 MPa)
ASTM C39	Compressive Strength Extended 50% with 3/8" (9.5 mm) pea gravel	3 hours. . . . . 2,500 psi (17.2 MPa) 1 day. . . . . 4,000 psi (27.6 MPa)
ASTM C348	Flexural Strength	7 days . . . . . 1,050 psi (7.2 MPa) 28 days . . . . . 1,200 psi (8.3 MPa)
ASTM C882M	Bond Strength	1 day. . . . . 1,800 psi (12.4 MPa) 28 days . . . . . 2,400 psi (16.5 MPa)
ASTM C672	Scaling Resistance	100 cycles . . . . . No Scaling
ASTM C666 Procedure A	Freeze/Thaw Resistance	300 cycles . . . . . 96%
ASTM C1202	Chloride Permeability	400 coulombs . . . . . very low
	Volumetric Resistivity	28 days . . . . . 65,000 ohm-cm

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## 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 SPEED CRETE 2028 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 2.25 to 2.5 qt (2.13 to 2.37 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. The material is stiff initially but relaxes after 4 to 5 minutes of mixing. Do not retemper.

**Extending Instructions (Optional):** When extended, SPEED CRETE 2028 may be applied in lifts of up to 3” (7.6 cm). One 50 lb (22.7 kg) unit may be extended by adding 40 lb (18.1 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. Proper mixing sequence involves; first, adding the measured quantity of water to the mortar mixer, second, adding the SPEED CRETE 2028 and mixing for 4 minutes to thoroughly wet it out, and third, adding pea gravel, if required.

**Placement:** SPEED CRETE 2028 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 surrounding concrete. Do not use SPEED CRETE 2028 for repairs less than 1/2” (13 mm) deep. If placing thicker than 1.5” (3.8 cm), 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 until warm, using warm water for mixing and tenting or insulating the repair area after application will assist in reaching higher strength development. Do not use direct heat on the repair after its installation.

**Finishing:** Finish the surface as desired. 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.

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## PRECAUTIONS/LIMITATIONS

- Store in a dry place.
- 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 over-trowel the repair material.
- Minimum depth of patching is 1/2” (12 mm).
- In all cases, consult the Safety Data Sheet before use.

Rev. 06.22

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