

HORIZONTAL REPAIR

Master Format #: 03 01 30.71

EUCO-SPEED

RAPID SETTING HORIZONTAL REPAIR MORTAR



EUCLID CHEMICAL

PACKAGING

50 lb (22.7 kg) bags
Code: 083A 50

APPROXIMATE YIELD

50 lb (22.7 kg) unit: 0.4 ft³ (0.01 m³) per unit when mixed with 0.75 gallons (2.85 L) of potable water.

Extended: 0.56 ft³ (0.016 m³) per unit when extended with 25 lbs (11.4 kg) of pea gravel. See full extending instructions under "Directions for Use".

MINIMUM/MAXIMUM APPLICATION THICKNESS

Neat: 0.5 to 2 inches (13 to 51 mm)
Extended: 1 to 6 inches (25 to 152 mm)

CLEAN UP

Clean tools and equipment with water before the material hardens.

SHELF LIFE

2 years in original, unopened package

SPECIFICATIONS AND COMPLIANCES

- ASTM C928 Standard Specification for Packaged, Dry, Rapid-Hardening Cementitious Materials for Concrete Repairs
- Canadian Food Inspection Agency, MTQ, MTO

DESCRIPTION

EUCO-SPEED is a rapid setting, rapid hardening, cementitious material for repairing horizontal concrete surfaces. Requiring only the addition of water, EUCO-SPEED is easy to use and can be installed with standard equipment and procedures. It has excellent adhesion to properly prepared concrete and provides a durable repair.

PRODUCT CHARACTERISTICS

FEATURES/BENEFITS

- Rapid setting for quick repairs
- Rapid, high early strength for quick turnaround time
- Easy to use single-component mortar
- Suitable for both interior and exterior applications
- Versatility in thickness from 1/2" to 6" (13 to 152 mm)

PRIMARY APPLICATIONS

- Bridge decks
- Ramps
- Parking garages
- Pavements
- Formed vertical & horizontal patching
- Marine structures

APPEARANCE

EUCO-SPEED is a free-flowing powder as packaged. After mixing and placing, the color may initially appear slightly darker than the surrounding concrete. While this color will lighten up substantially as the concrete cures and dries out, the repair may always appear somewhat darker than the surrounding concrete. This product is designed to be finished with a float or broom appearance. A steel trowel finish may be applied, but timing of the final trowel is critical and the contractor may have difficulty achieving a smooth finish over a large area.

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 1/4 (32)	1 1/2 (38)	1 3/4 (44)	2 (51)
Coverage Area per Unit - ft ² (m ²)	9.6 (0.89)	7.7 (0.72)	6.4 (0.59)	4.8 (0.45)	3.8 (0.35)	3.2 (0.30)	2.7 (0.25)	2.4 (0.22)

TECHNICAL INFORMATION

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

Test Method	Test Property	Values
ASTM C109	Compressive Strength	3 hours 1,100 psi (8 MPa) 1 day 5,000 psi (35 MPa) 7 days 6,000 psi (41 MPa) 28 days 7,000 psi (48 MPa)
ASTM C266	Final Set Time	approximately 30 minutes
	Wheeled Traffic	approximately 6 to 8 hours
ASTM C928	Flow after 5 minutes	122%
ASTM C672	Scaling	25 cycles 0 rating
ASTM C157*	Length Change in water	28 days + 0.100%
ASTM C157*	Length Change in air	28 days - 0.065%

*(3" x 3" x 11" beam specimens were removed from molds @ 2 hours)

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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, Form & Pour 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 EUCO-SPEED 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 0.70 to 0.75 gal (2.65 to 2.85 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 #P2, #P5, or #P6 mixing paddle according to ICRI Guideline No. 320.5. 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 minutes. The mixed product should be quickly transported to the repair area and placed immediately. Do not retemper.

Extending Instructions (Optional): When extended, EUCO-SPEED may be applied in lifts of up to 6" (152 mm). One 50 lb (22.7 kg) unit may be extended by adding 25 lb (11.3 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.

Placement: Ambient and surface temperatures should be at least 40 °F (4 °C). Working time is very limited. After mixing, immediately spread with a float, come-a-long, or square tipped shovel to a thickness that matches the surrounding concrete. Do not use EUCO-SPEED for repairs less than 1/2" (13 mm) deep. If placing thicker than 2" (51 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.

Finishing: Finish the repair material to the desired float or broom finish texture. 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. In hot, windy or direct sunlight situations, re-wet the surface after the curing compound has dried and cover with polyethylene for a minimum of 3 days. If a curing compound is not desired, wet cure for a minimum of 3 days.

PRECAUTIONS/LIMITATIONS

- Store in a dry place.
- Minimum application temperature is 40 °F (4 °C).
- If used in cold weather, the repair must be kept from freezing for at least 8 hours.
- 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".
- No heavy traffic until the product has reached a minimum of 2,000 psi (14 MPa).
- In all cases, consult the Safety Data Sheet before use.

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