



EUCLID CHEMICAL

EUCO-SPEED

RAPID SETTING HORIZONTAL REPAIR MORTAR

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.

PRIMARY APPLICATIONS

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

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" (12 mm) to 6" (15 cm)

TECHNICAL INFORMATION

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

Compressive Strengths ASTM C109 2"(50mm) cubes
 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)

Final set time ASTM C266.....approx. 30 minutes

Wheeled traffic.....approx. 6 to 8 hours

Flow after 5 min per ASTM C109.....122%

Scaling per ASTM C672 25 cycles.....0 rating

Length change in water per ASTM C157
 (3"x3"x11" specimens were removed from mold @ 2 hrs)
 28 days.....+0.100%

Length change in air per ASTM C157
 (3"x3"x11" specimens were removed from mold @ 2 hrs)
 28 days.....- 0.065%

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.

PACKAGING/YIELD

One 50 lb (22.7 kg) bag of EUCO-SPEED, mixed with .75 gal (2.85 L) of water, will yield approximately 0.4 ft³ (0.011 m³) of mortar. EUCO-SPEED may be extended with up to 25 lb (11.3 kg) of 3/8" (9.5 mm) pea gravel per bag for deeper areas. Yield with pea gravel will increase to approximately 0.56 ft³ (0.016 m³) per bag.

SHELF LIFE

2 years in original, unopened package

SPECIFICATIONS/COMPLIANCES

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

COVERAGE

One unit of EUCO-SPEED will cover approximately 9.8 ft² (0.91 m²) when placed at an average depth of 1/2" (12 mm). When one unit of material is extended with 25 lb (11 kg) of 3/8" (9.5 mm) pea gravel, the mixed material will cover 13.4 ft² (1.24 m²) when placed at an average depth of 1/2" (12 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, 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: Single bags may be mixed with a drill and #P2, #P5, or #P6 mixing paddle according to ICRI Guideline No. 320.5. Use a horizontal shaft mortar mixer for larger jobs. All materials should be in the proper temperature range of 60°F (16°C) to 90°F (32°C). Add the appropriate amount of water, 0.70 - 0.75 gal (2.65 - 2.85 L) per bag, for the batch size and then add the EUCO-SPEED. Mix material for about 2 minutes. The mixed product should be quickly transported to the repair area and placed immediately. For deeper repairs, 1" (2.5 cm) to 6" (15 cm), extend EUCO-SPEED with 25 lb (11.4 kg) of clean, SSD, 3/8" (9.5 mm) rounded pea gravel (#8, ASTM C33). The pea gravel must be dense and non-absorbent per ASTM C127 and non-reactive (ASR) per ASTM C227, C289 and C1260.

Placement: EUCO-SPEED sets quickly; the time available for placement and finishing will be very limited. For repairs; spread with a trowel, come-a-long, or square tipped shovel to a thickness that matches the surrounding concrete. Float to even out mortar.

Finishing: Finish EUCO-SPEED to the desired float or broom finish. Do not add additional water to the surface during the finishing operation; use EUCOBAR evaporation retarder on sunny, hot & windy days.

Curing and Sealing: Proper curing procedures are important to ensure the durability and quality of the repair. To prevent surface cracking, cure EUCO-SPEED with a high-solids curing compound, such as SUPER AQUA-CURE VOX or SUPER DIAMOND CLEAR VOX. 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.

CLEAN-UP

Clean tools and equipment with water before the material hardens.

PRECAUTIONS/LIMITATIONS

- If used in cold weather, the repair must be kept from freezing for at least 8 hours.
- Do not apply over frozen concrete.
- Do not place material at temperatures below 40°F (4°C).
- 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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