



# THE EUCLID CHEMICAL COMPANY

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# EUCO-SPEED

## RAPID SETTING PATCHING MORTAR

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**EUCO-SPEED** is a rapid setting, rapid hardening cementitious material for patching and repair of concrete surfaces. Requiring only the addition of water, EUCO-SPEED is easy to use and can be installed with standard tools, equipment and procedures. It bonds tenaciously to properly prepared concrete and provides a durable patch.

### PRIMARY APPLICATIONS

- Bridge decks
- Ramps
- Parking garages
- Pavements
- Floors
- Walls (formed)
- Marine structures

### FEATURES / BENEFITS

- Rapid setting for quick repairs
- Rapid high early strength for quick turnaround time
- Easy to use one part system
- Suitable for both interior and exterior application
- Versatility in thickness from 1/2" (13 mm) to 8" (203 mm)

### SPECIFICATIONS / COMPLIANCES

EUCO-SPEED meets the requirements of:

- ASTM C-928, Standard Specification for Packaged, Dry, Rapid-Hardening, Cementitious Materials for Concrete Repairs

### PACKAGING / YIELD

One 50 lb (22.7 kg) bag of EUCO-SPEED, mixed with .75 gal (2.85 liter) of water, will yield approximately 0.41 ft<sup>3</sup> (0.012 m<sup>3</sup>) 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 deep areas. Yield will increase to approximately 0.56 ft<sup>3</sup> (.016 m<sup>3</sup>) per bag.

Shelf life in original unopened package is 2 years.

### TECHNICAL INFORMATION

#### **Typical Engineering Data**

#### **Compressive Strengths**

|         |                              |                    |
|---------|------------------------------|--------------------|
|         | ASTM C-109, 2" (50 mm) cubes |                    |
|         | 40°F (4°C)                   | 72°F (22°C)        |
| 3 hours | 1,300 psi (9 MPa)            | 1,400 psi (10 MPa) |
| 1 day   | 4,000 psi (28 MPa)           | 5,000 psi (35 MPa) |
| 3 days  | 4,500 psi (31 MPa)           | 5,500 psi (38 MPa) |
| 7 days  | 5,500 psi (38 MPa)           | 6,000 psi (41 MPa) |
| 28 days | 7,000 psi (48 MPa)           | 7,000 psi (48 MPa) |

Will accept wheeled traffic

@ 70°F (21°C): 6-8 hours

**Final set time** at 72°F (22°C): 18 min

**Flow after 5 min** per ASTM C-109: 105%

**Scaling** per ASTM C-672 25 cycles: none

#### **Length change in water at 28 days**

ASTM C-157: +0.102%

#### **Length change in air at 28 days**

ASTM C-157: 0.054%

**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.

**Material Requirements**-One unit of EUCO-SPEED will cover approximately 9.8 ft<sup>2</sup> (0.91 m<sup>2</sup>) when placed at an average depth of 1/2" (12.7 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 ft<sup>2</sup> (1.24 m<sup>2</sup>) when placed at an average depth of 1/2" (12.7 mm).

NOTE: This product requires a primer bond coat and a curing compound.

## **DIRECTIONS FOR USE**

**Surface Preparation**-New concrete must be a minimum of 28 days old if an epoxy adhesive will be used to bond the topping.

The concrete must be clean and rough. All oil, dirt, debris, paint and unsound concrete must be removed. The surface must be prepared mechanically using a scabber, bushhammer, shotblast or scarifier which will give a surface profile of a minimum 1/8" (3.2 mm) and expose the large aggregate of the concrete. The final step in cleaning should be the complete removal of all residue with a vacuum cleaner or pressure washing.

**NOTE: ACID ETCHING IS NOT ACCEPTABLE.**

All concrete must possess an open surface texture with all curing compounds and sealers removed.

**Joints and Edges**-Edges should be sawcut to 1/4" (6 mm) deeper than the topping thickness and the floor should be notched at the edge of the repair to provide a locked in, reinforced edge. Chip the edge with a hand held chipping hammer to provide the wedge shaped notch. Moving joints as in the case of expansion joints should be brought up through the repair by sawcutting or with the use of a divider strip. All cracks over 1/16" (1.6 mm) wide should be routed out to a 1/4" (6 mm) depth prior to application of the mortar.

**Exposed Reinforcement Steel**-Exposed rebar may be treated with an anti-corrosion coating such as CORR-BOND, or EUCO #452 LV epoxy. Remove all loose rust and scaling, preferably by sandblasting to white metal prior to coating the rebar.

**Bonding** - After the surface has been prepared, prime all areas with either CORR-BOND or EUCO #452 MV epoxy adhesive (interior use), EUCO #352 MV Epoxy adhesive (exterior use) or a cement & SBR LATEX bond coat. CORR-BOND will provide the greatest placement and performance versatility. Follow mixing and placing instructions for the particular bonding product on the respective product's technical data sheet.

**Mixing**-Small quantities may be mixed with a drill and "jiffy" mixer. Use a paddle type mortar mixer for large jobs. All materials should be in the proper temperature range of 60°F (16°C) - 90°F (32°C). Add the appropriate amount of water 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.

**Placement**-Discharge material from mixer and place onto floor. For patching, spread with a trowel, come-along, or square tipped shovel to a thickness that matches the surrounding concrete. Finish by hand troweling.

EUCO-SPEED sets quickly, the time available for placement and finishing will be very limited.

**Finishing**-Finish EUCO-SPEED to the desired float or broom finish texture. Do not add additional water to the surface during the finishing operation. If additional liquid is required, use EUCOBAR finishing aid.

**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 REZ-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 three (3) days.

Curing compound must be ordered separately.

If a curing compound is not desired, wet cure for a minimum of three (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).
- No heavy traffic until the product has reached a minimum of 2000 psi (14 MPa).

Form Euco-Speed-5.97

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