



THE EUCLID CHEMICAL COMPANY

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EUCO SPEED MP

MAGNESIUM PHOSPHATE CEMENT

EUCO-SPEED MP is a rapid setting, very rapid hardening magnesium phosphate material for binding aggregates. EUCO-SPEED MP requires only the addition of water and can be installed with standard tools, equipment and procedures. It bonds tenaciously to properly prepared concrete and rock surfaces and provides a durable material which is resistant to freeze/thaw cycling.

PRIMARY APPLICATIONS

- Wherever a quick setting, high-strength mortar is required

FEATURES/BENEFITS

- Rapid setting for quick installations in less than one hour
- Extremely high early strength for quick turnaround time
- Easy to use one part system
- Durable under freeze/thaw cycling
- Suitable for both interior and exterior applications
- Versatility in thickness from 1/2" (13 mm) to 8" (203 mm) when extended with aggregate
- Sets quickly on cold concrete or rock
- May be placed and cured at 0°F (-17°C)

SPECIFICATIONS/COMPLIANCES

EUCO-SPEED MP meets the "very rapid hardening category" requirements of:

- ASTM C-928, Standard Specifications for Packaged, Dry, Rapid-Hardening Cementitious Materials for Concrete Repair.

PACKAGING/YIELD

EUCO SPEED MP is packaged in easy to use 50 lb (22.7 kg) bags with polyethylene liners for moisture protection. Material is shipped on pallets, 64 bags per pallet. Also available in 3300 lb (1497 kg) bulk bags suitable for mixing in ready mix trucks for large topping placements.

One 50 lb (22.7 kg) bag of EUCO-SPEED MP mixed with 0.45 gal (1.7 liter) of water will yield approximately 0.42 ft³ (0.012 m³) of mortar.

Shelf Life: 1 year in original, unopened package.

TECHNICAL INFORMATION

Typical Engineering Data *

The following results were developed under laboratory conditions.

Compressive Strength

ASTM C-109, 2" (50 mm) cubes @ 72°F (22°C)		
2 hours	3,500 psi	(24 MPa)
3 hours	5,000 psi	(35 MPa)
6 hours	5,500 psi	(38 MPa)
1 day	6,000 psi	(41 MPa)
3 days	6,500 psi	(45 MPa)
7 days	7,000 psi	(48 MPa)
28 days	7,500 psi	(52 MPa)

Bond Strength, ASTM C-882 modified

3 hours	1,000 psi	(7 MPa)
1 day	1,300 psi	(9 MPa)
3 days	1,500 psi	(10 MPa)
7 days	1,600 psi	(11 MPa)
28 days	1,700 psi	(12 MPa)

Flexural Strength, ASTM C-78

4 hours	400 psi	(2.8 MPa)
3 days	500 psi	(3.4 MPa)

Will accept wheeled traffic in 1-2 hours @ 70°F (21°C)

Setting Time (Gillmore Needles):

Initial: 8-12 minutes
Final: 12-20 minutes

Freeze/Thaw Resistance ASTM C-666 "A" Relative Dynamic Modulus at 300 cycles: 93%

* All testing was conducted on neat material under controlled laboratory conditions. Do not expect similar compressive strength results using cylinder type molds. Also, strengths will be affected by the amount and type of aggregate added to extend EUCO-SPEED MP.

DIRECTIONS FOR USE

Surface Preparation-The surface must be clean and rough. All oil, dirt, debris, paint and unsound concrete must be removed. EUCO-SPEED MP requires a minimum depth of 1/2" (13 mm).

The Euclid Chemical Company is ISO 9001 Certified Cert.#109877

A RPM Company

The final step in cleaning should be the complete removal of all residue with a vacuum cleaner or pressure washing. NOTE: EUCO-SPEED MP should not be placed over carbonated concrete. All carbonation must be removed to ensure a good bond.

Bonding-EUCO-SPEED MP requires no bond coat.

Mixing- Add the appropriate amount of water for the batch size and then add the EUCO-SPEED MP. **The amount of water to be mixed with EUCO-SPEED MP is critical. Add between 0.4-0.5 gal (1.5-1.9 liter) of water per 50 lb (22.7 kg) bag.** Mix material for about 2 minutes. The mixed material should be quickly transported to the placement area and placed immediately.

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

Finishing-Finish EUCO-SPEED MP to the desired float or broom finish texture. Do not add additional water to the surface during the finishing operation.

Curing and Sealing-EUCO-SPEED MP is self-curing. Never wet cure this product.

PRECAUTIONS/LIMITATIONS

- The curing of EUCO-SPEED MP is a chemical reaction that gives off heat. Mixed and placed material must be maintained at or below 140°F (60°C) if satisfactory results are to be expected.
- Do not add sand or cement.
- Do not place EUCO-SPEED MP on an ice covered substrate.
- When mixing in an enclosed area, provide adequate ventilation.
- No heavy traffic until the product has reached a minimum of 2000 psi (13.8 MPa).
- Do not wet cure.
- Field testing of EUCO-SPEED MP should only be performed after consulting The Euclid Chemical technical department.

ADDITIONAL INFORMATION

For more information on the use of EUCO SPEED MP or any other Euclid Chemical product, contact The Euclid Chemical Company, Underground Sales and Marketing at 1-800-321-7628, extension 8395. The Euclid Chemical Company will assist mining operations in testing of materials to assess correct product usage for specific applications.

