



SPEEDPAVE MP

Rapid Setting, High Early Strength Magnesium Phosphate Mortar

1. Product Description

a. **Basic Use:** Speedpave MP is a rapid setting, high-early, magnesium phosphate based patching mortar for repair of concrete slabs and pavements. It is a one-part system requiring only the addition of water for mixing. Speedpave MP is designed for thicknesses from 1/2 in. (12.7 mm) to 6 in. (152 mm). It is good for both indoor and outdoor use.

b. **Features/Benefits:**

- Proprietary formulation permits use at temperatures as low as 10°F (-12°C).
- Rapid hardening for short downtime.
- Excellent bond to sound concrete.
- Open to traffic in 1 hour.
- Good resistance to freeze/thaw cycling and de-icing salts.
- Easy to mix and use.

c. **Typical Applications:** Pavements, parking decks, roads, bridges, expansion joint nosings and floors.

d. **Limitations:** Do not use as a general overlay material unless cold joints are acceptable. Do not apply to frozen concrete surfaces.

e. **Composition:** Speedpave MP is a combination of hard, dense aggregate, specialty cements, and a proprietary chemical system.

f. **Color/Appearance:** Slightly darker than plain concrete.

2. Packaging

Speedpave MP is packaged in 50-lb (22.7 Kg) bags, 60 bags per pallet.

3. Estimating/Yield

One 50-lb. (22.7 Kg) bag of Speedpave MP yields 0.42 cu. ft. (0.012 cu. m) of patching mortar. At 1 in. (25.4 mm) thickness, one bag will cover 5 sq. ft. (0.46 sq. m). On deep repairs, Speedpave MP may be extended with up to 25 lbs. (11.3 Kg) of 3/8 in. (10 mm) pea gravel which will increase the yield to approximately 0.57 cu. ft. (0.016 cu. m).

4. Technical Data

a. **Applicable Standards:**

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

b. **Compressive Strength:** ASTM C 109, 2 in. (50 mm) cubes.

Properties at 72°F (22°C)

<i>Age</i>	<i>Strength</i>
3 hours	4,600 psi (31.7 MPa)
1 day	7,600 psi (52.4 MPa)
3 days	8,400 psi (57.9 MPa)
7 days	9,100 psi (62.7 MPa)
28 days	9,500 psi (65.5 MPa)

Properties at 35°F (2°C)

<i>Age</i>	<i>Strength</i>
3 hours	700 psi (4.8 MPa)
6 hours	2,100 psi (14.5 MPa)
12 hours	3,800 psi (26.2 MPa)
24 hours	5,200 psi (35.9 MPa)
7 days	8,000 psi (55.2 MPa)
28 days	9,200 psi (63.4 MPa)

c. **Flow After 5 Minutes:** ASTM C 109, 115%.

d. **Length Change:** In air after 28 days, 0.0%.

e. **Scaling:** ASTM C 672 after 25 cycles, 0 visual rating.

f. **Final Set:** ASTM C 191, 13 minutes.

g. **Bond Strength:** ASTM C 1042, 1,500 psi (10 MPa) at 72°F (22°C).

h. **Flexural Strength:** ASTM C 78, 1,100 psi (7.6 MPa) at 72°F (22°C).

5. Directions for Use

a. **Preparation:** Base concrete must be sound and clean. Chip, chisel, bushhammer, scabble, or shotblast damaged surface down to sound concrete. Any oil soaked concrete must be removed. Blow surface clean with water and compressed air. The bonding surface must be free of any coatings, paints, sealers, or curing compounds.

b. **Bonding:** Prewet the concrete surface so that water is not rapidly removed from the Speedpave MP repair mortar. Brush in a loose mixture of Speedpave MP as a bond coat. Do not allow bond coat to dry out before Speedpave MP application.

c. **Mixing:** Use a mortar mixer in good working condition. Add 0.4 gal. (1.5 liter) of water per bag. Add 3 to 4 bags per batch and mix for 2 to 3 minutes to produce a smooth, lump free consistency.

d. **Placement:** Transport mortar to repair area in a buggy or wheelbarrow. Place onto repair and screed to meet adjacent level. Working time is 10 minutes.

e. **Finishing:** Apply broom, float, or trowel finish to achieve desired texture.

f. **Protection:** Keep from freezing for 4 hours.

g. **Curing:** Speedpave MP is self-curing. No separate curing compounds are required.

h. **Maintenance:** Speedpave MP is intended to be free of maintenance once properly installed. Standard concrete sealers and coatings may be applied, if desired.

6. Availability

Speedpave MP is normally available immediately from your local distributor or it will be shipped within 5 working days upon receipt of order. Please contact your local Metalcrete representative or call Metalcrete directly for more information.

7. Warranty

Speedpave MP is manufactured in strict accordance with the quality control standards of Metalcrete Industries. It is guaranteed to perform as indicated on this data sheet when applied by competent applicators.

8. Technical Service

Metalcrete technical service representatives are available to provide on-site assistance with a minimum three day notice.



Metalcrete Industries

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