



POLYMER MODIFIED SETTING BED MORTAR

1-888-SPECMIX

DIVISION **04**
MASONRY PRODUCTS



Superior Adhesion. Excellent Durability.

SPEC MIX® Polymer Modified Setting Bed Mortar (PMSBM) is specifically engineered as a thick mortar setting bed for natural and manufactured paving units. This product contains a unique blend of polymers and other performance enhancing admixtures, allowing it to meet ANSI and ASTM requirements.

SPEC MIX PMSBM can be used as a thick fortified bedding mortar for residential and commercial paving unit applications as well as a joint grouting material between horizontal

pavers. It can also be used as a polymer modified dry pack setting bed material in interior and exterior installations allowing light to heavy traffic.

SPEC MIX PMSBM is produced under strict manufacturing standards supported by complete quality control measures. A digital printout displaying the proper proportions per batch may be kept as a permanent record.

Each product is 100% dry, preblended in 80 lb. or 3,000 bags, eliminating the need to measure and add liquid admixtures on site which in turn ensures quality control while increasing jobsite productivity—EVERY JOB!

MATERIALS USED

PORTLAND CEMENT
SAND
ADMIXTURES



TOTAL QUALITY CONTROL WITH EVERY BAG
LABORATORY TESTED MIX DESIGNS
PREBLENDED WITH SAND TO MINIMIZE LABOR COST
CONSISTENCY BATCH TO BATCH
GREAT WORKABILITY AND BOARD LIFE
SPECIFICALLY DESIGNED TO MATCH STONE CHARACTERISTICS
NO SAND PILES OR WASTED MATERIALS LEFT ON SITE

INSTALLATION/APPLICATION

When using SPEC MIX PMSBM as a thick fortified bedding material, use only rigid base diaphragms and over reinforced slab on grade concrete. Do not install over compacted aggregate. The substrate must be clean and porous. Dry and hot concrete slabs should be surface dampened. Do not allow water to puddle. Do not use PMSBM for vertical applications. Allow bed material to cure 24 hours before allowing light traffic and 14 days for heavy traffic.

When using SPEC MIX PMSBM as a zero slump consistency (dry pack) bedding material. The use of reinforcing wire mesh is recommended when placing setting bed mortar. Place setting bed mortar in two lifts utilizing a 2" x 2" (50 mm x 50 mm), 16 gauge galvanized welded wire between lifts. The wire mesh should be suspended in the middle of the mortar bed. Spread the mortar and compact well. Minimum mortar bed thickness shall be 2" (50 mm). When placing paving units, apply a slurry bond coat. While the slurry bond coat is wet and sticky, place the tile and beat in well.

A sample of the proposed product will be provided by the manufacturer for architectural approval and testing, if required. Preparation of a sample panel with all materials and masonry systems employed in the final project is imperative. Retain the mock-up or field sample through the completion of the project.

Material must cure 14 days before allowing consistent wetting (e.g. fountain, pool, water features, etc.).

Clean masonry only with a national proprietary cleaning agent (following the manufacturer's instructions) or potable water. SPEC MIX products are custom packaged to the specification. They must be kept dry, covered and protected from weather and other damage.

SIZES AND EQUIPMENT

SPEC MIX PMSBM is available in 80 lb. (36.3 kg.) packages for easy hand loading or in 3,000 lb. (1,360.8 kg.) reusable bulk bags to be used with the various SPEC MIX silo systems. When using the silo system, once the bulk bags of mortar are delivered to the project site, the portable silo is loaded with a job site forklift and the product is dispensed into a mechanical batch mixer.

MIXING INSTRUCTIONS

WEAR IMPERVIOUS GLOVES, such as nitrile when handling product.

1. Use a mechanical batch mixer to ensure homogeneity, workability and good board life.
2. Add the minimum amount of clean, potable water consistent with optimum workability.
3. Mix for 4-5 minutes consistently from batch to batch.
4. Tool mortar joints when the surface is thumbprint hard. Keep tooling times consistent.
5. Hand mix mortar only with written approval by the specifier who should outline procedures.
6. Use mortar within 2.5 hours after initial mixing.
7. Retemper mortar only when mixing water is lost due to evaporation.

TYPICAL PHYSICAL PROPERTIES

Compressive Strength - ASTM C 109	1 day	2,000 psi (13.8 MPa)
	3 days	3,000 psi (20.7 MPa)
	7 days	4,000 psi (27.6 MPa)
	28 days	4,500 psi (31 MPa)
Air Content - ASTM C 231		5%
Water Retention - ASTM C 1506		88%
Set Times - ASTM C 403	Initial Set	4 hrs, 30 min
	Final Set	6 hrs, 45 min
Water Absorption - ANSI A118.7.3.4		< 5%
Water Absorption - ASTM C 413		< 2%
Flexural Strength - ANSI A118.7.3.7	28 day	> 1,000 psi (6.9 MPa)
Bond Strength - ASTM C 1583 (*modified)		7 day > 520 psi (3.6 MPa)
Shrinkage - ASTM C 157	7 day cure	< 0.1%

ESTIMATED YIELDS

Bed Depth	Approximate Yield	
	80lb (36.3kg) bag	3,000lb (1,360.8kg) bag
1 in (2.5 cm)	8 sq ft	300 sq ft
2 in (5.1 cm)	4 sq ft	150 sq ft
3 in (7.6 cm)	2.67 sq ft	100 sq ft
4 in (10.2 cm)	2 sq ft	75 sq ft

8. Install when ambient and substrate temperatures are between 40° F (4° C) and 90° F (32° C). If temperatures are outside this range within 48 hours of placing, follow ACI Hot & Cold Weather Masonry Practices.

LIMITATIONS

SPEC MIX PMSBM should be installed in accordance with the provisions of the local building code and applicable ASTM and ACI standards. Good workmanship coupled with proper detailing and design assures durable, functional, watertight construction. Follow proper cold-weather masonry procedures at temperatures below 40° F (4° C).

LIMITED WARRANTY

SPEC MIX, Inc. warrants this product to be of merchantable quality when used or applied in accordance with the instructions hereon. This product is not warranted as suitable for any purpose or use other than the general purpose for which it is intended. Liability under this warranty is LIMITED to the replacement of its product (as purchased) if found to be defective, or at the shipping company's option, to refund the purchase price. In the event of a claim under this warranty, notice must be given to SPEC MIX, Inc. in writing at: One Securities Centre, 3490 Piedmont Road, Suite 1300, Atlanta, GA 30305. THIS LIMITED WARRANTY IS ISSUED AND ACCEPTED IN LIEU OF ALL OTHER EXPRESS WARRANTIES AND EXPRESSLY EXCLUDES LIABILITY FOR CONSEQUENTIAL DAMAGES.



WARNING

IMPORTANT! READ BEFORE USING. WEAR IMPERVIOUS GLOVES, such as nitrile. **WARNING: CAN CAUSE SERIOUS INJURY TO SKIN AND EYES.** This product contains Portland cement. Contact with freshly mixed product can cause severe burns. Avoid direct contact with skin and eyes. If this product should contact eyes, immediately flush with water for at least 15 minutes and consult a physician. For skin exposure, wash promptly with plenty of soap and water. Remove soaked clothing promptly. If this product burns your skin, see a physician immediately. This product may contain silica. Silica dust if inhaled may cause respiratory or other health problems. Prolonged inhalation may cause delayed lung injury, including silicosis and possibly cancer. A N95 approved dust mask, eye protection, and rubber boots and gloves are recommended when using this product. Safety Data Sheets can be viewed online at www.specmix.com

KEEP OUT OF REACH OF CHILDREN

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TECHNICAL SUPPORT

- CONTACT YOUR LOCAL SPEC MIX® MANUFACTURER
- VISIT WWW.SPECMIX.COM
- CONTACT SPEC MIX®, INC.
PHONE: 888-SPEC-MIX FAX: 651-454-5315