Mortar Bed 2000 DS

Product Technical Data Sheet

Mortar Bed 2000 DS is a single component, polymer-modified, pre-blended cementitious mortar bed fortified with micro-fiber reinforcement and shrinkage-compensating additives to achieve exceptional physical properties with very low drying shrinkage. Designed for horizontal and vertical applications, ***Mortar Bed 2000 DS*** can be hand-troweled to create a thin-to-thick mortar bed from 1/8" up to 1". Does not require the use of a separate latex admixture for mixing. Mix 2.5 to 3.0 quarts of potable water to produce a superior mortar bed with extended workability that does not require the application of a slurry coat to the concrete substrate.

WHERE TO USE

- Interior and exterior, in wet or dry applications.
- For thin or thick mortar bed – bonded or unbonded.
- Concrete surface repairs and flooring underlayment.
- Wall rendering and floor sloping mortar.
- Quick return to service requirements.

ADVANTAGES

- Polymer modified powder – no need liquid latex admixture.
- Factory premixed blend – no batching on site, lime free.
- Delayed initial setting time for extended workability.
- Rapid return to service for fast-track installations.
- Very low water absorption and drying shrinkage.
- Excellent compressive, flexural and tensile strengths.
- Tenacious adhesion to prepared substrates.
- Meets requirements of ANSI A108.1

COVERAGE RATES

Theoretical coverage rate per 50 lb. bag:
46.6 sq. ft. @ 1/8"
23.3 sq. ft. @ 1/4"
17.4 sq. ft. @ 3/8"
11.6 sq. ft. @ 1/2"
4.8 sq. ft. @ 1"

Approximate Yield/Bag - .48 cu. ft.

Actual consumption rates are dependent on many factors including, but not limited to, substrate texture and porosity, variations in applied thickness and normal allowance for waste.

PACKAGING and COLORS

Powder (50-pound bag) - Available in gray.

MIX RATIO

2.5 to 3.0 Quarts Potable Water to (1) 50 lb. bag of powder.

SHELF LIFE AND STORAGE

One year from the date of manufacture provided packaging remains unopened and material is stored in a protected environment free from moisture, excessive heat, freezing temperatures, and direct sunlight.

TYPICAL PHYSICAL PROPERTIES @ 75°F (24°C)

Water Demand.....Approximately 2.5 - 3.0 quarts/bag

Working Time..... 40 minutes (with cool mix water)

Compressive Strength (ASTM C109):
7 Day……5,575 psi
28 Day…….6,125 psi

Tensile Strength (ASTM C190):
7 Day..... 435 psi
28 Day..... 585 psi

Flexural Strength (ASTM C348):
7 Day……...845 psi
28 Day..... 1,400 psi

Adhesion (ACI 503.R)……..……..…….> 290 psi

Water Absorption (ANSI A118.7) ..... < 4.0%

Shrinkage (ASTM C157)……....<.04 %

Initial Set (ASTM C191)……...60 min.

Final Set (ASTM C191)……90 min.

OVERVIEW OF INSTALLATION STEPS

- **Surface Preparation –** All surfaces must be clean, sound, and free from bond inhibiting substances including, but not limited to, grease, oil and any other contaminants or loosely bonded materials. Follow ICRI Technical Guideline #310.2R-2013 for detailed surface preparation requirements. A minimum surface profile of a CSP-4 or higher is required depending on overall substrate conditions and mortar bed requirements. Concrete and other porous or absorptive substrates must be **(SSD) saturated surface dry** with no standing water at the time of application.

- **Mixing -** ***Mortar Bed 2000 DS*** must be mechanically mixed to a uniform consistency in a clean mixing vessel using a low-speed drill (300-450 rpm) with a "double-box" or similar Miracote-approved type mixing paddle. Pour approximately 2.5 quarts of potable water into the mixing vessel. When mixing always add the powder component gradually into the mixing water. Thoroughly blend the complete unit for a minimum of two minutes. For desired consistency, you may add an additional ½ pint maximum of potable water and continue mixing an additional minute or until a uniform homogeneous consistency is achieved.

OVERVIEW OF INSTALLATION STEPS (continued).

Application & Finish – As with all trowel-grade brown coat or render mortars, ***Mortar Bed 2000 DS*** must be applied to a saturated surface dry (SSD) substrate with no standing water. To ensure intimate contact with the concrete substrate, apply a scrub coat to fill all pores and voids and spread mortar with a trowel immediately while scrub coat is still wet. Trowel the mortar against the perimeter of the repair and work the material over the concrete surface and compact well. Do not re-temper the material when it is no longer workable.

FOR BEST RESULTS

- Always install a minimum 4' by 4' test area or job site mockup for owner approval of acceptable color, texture, finish adhesion and any other critical requirements prior to proceeding with the installation.
- Verify that the most current versions of product technical data sheets (PTDS), color charts, material safety data sheets (MSDS), and installation guidelines (IG) are being utilized for project submittals and application reference.
- Protect materials always from excessive heat and cold, and pre-condition material as required in adverse conditions.
- As per ACI recommendations for Portland cement concrete, curing is required to meet published physical properties. Moist curing with burlap/polyethylene or burlene is the preferred method. A compatible water-based curing compound is also acceptable but may require removal prior to the application of subsequent coatings or other materials.
- The proper application of this product is the sole responsibility of the end user. The intent of job site visits by Miracote representatives is for observation of the work and offering technical recommendations only. Supervision and quality control are the sole responsibility of the user.
- Measure surface and ambient temperatures to ensure that material is only applied when both temperatures range between 40°F (7°C) and 90°F (7°C) during mixing, placement and time of application.

LIMITATIONS

- Concrete surface repair dimensions including overall length, width, depth and shape need careful consideration and should be in conformance with ACI recommended standards of practice.
- Mechanical surface preparation methods may require additional testing to verify substrate tensile strength in accordance with ICRI Guideline No. 210.3R-2013 (Guide for Using In-Situ Tensile Pull-off Tests to Evaluate Bond of Concrete Surface Materials).
- Extension with coarse aggregates may alter the physical properties of ***Miracote Mortar Bed 2000 DS*** as published.
- Do not use solvent-based curing compounds.
- As with all cement-based materials, avoid direct contact with aluminum to prevent adverse chemical reactions. Refer to MiraPrime MP for an appropriate primer.

LIMITED WARRANTY

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CAUTION: ALWAYS KEEP OUT OF THE REACH OF CHILDREN.

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