



MRS-EM400

Epoxy Mortar Resin System

Description

ENDURIT MRS-EM400 is a multi-component "Universal Epoxy Mortar" 100% solids epoxy resin supplied as a clear or pigmented mortar. ENDURIT MRS-EM400 is supplied with a chemical resistant curing agent and is designed to be mixed with aggregate at a ratio of 1 part resin to 7 parts sand. The mortar can be hand troweled, but is also designed for power troweling at a minimum application thickness of 3/16 of an inch.

Features and Benefits

- ☑ Solvent Free, no VOC, No odor
- ☑ Used for Repair and Patching of Concrete
- ☑ High Compressive Strength
- ☑ High Chemical Resistance
- ☑ Excellent Impact and Abrasion Resistance
- ☑ Color Packs allow for Top Coat Matching

Areas of Application

ENDURIT MRS-EM400 is designed to be used as an overlay to restore old or worn concrete, as a dense protective layer over new concrete or to repair spalls and static cracks that require high abrasion and impact resistance along with chemical resistance. It can be used for both interior and exterior applications. It is recommended that a UV resistant top coat be applied if color fastness is required. MRS-EM400 may discolor over time if exposed to UV light.

ENDURIT MRS-EM400 has been used effectively in office, hospital, school, super-market, manufacturing, hangar, housing, and many other industrial environments where substrate protection or repair is required.

Product Properties

Material Properties

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| Flash Point, ASTM D3278 | ≥ 215°F |
| Viscosity (resin only mixed), ASTM D2196 | 400-700 cps |
| Dry Time, ASTM D5895 | 2 hr Tack Free |
| Total Solids by Weight, ASTM D2369 | 100% |
| Volatile Organic Compounds, ASTM D3960 | 0 g/l |

Cured Properties

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| Abrasion Resistance Tabor H-10, ASTM D4060 | 400 mg |
| Coefficient of Friction-James Test, ASTM D2047 | 0.55 |
| Compressive Strength, ASTM C579A | 10,000 psi |
| Adhesion to Concrete, ASTM D4541 | >350 psi |
| Impact, Direct & B Reverse, ASTM D2794 | 12 in. lbs |
| Modulus of Elasticity, ASTM C580 | 1.9 x 10 ⁶ psi |

Surface Preparation

Successful bonding requires structurally sound, strong, and clean substrates.

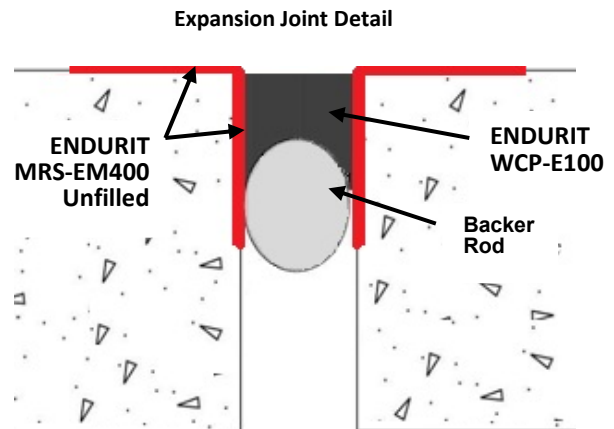
Concrete substrates to receive ENDURIT MRS-EM400 must be structurally sound, and stable. Surfaces must be free of adhesives, coatings, curing compounds, sealers, efflorescence, dust, grease, oils and any other material or compound that may interfere with adhesion or cure of the coating. All patching, leveling materials, adhesives, and prior coatings must be removed prior to installing MRS-EM400. Shot blasting is the preferred method of surface preparation. A CSP 3-4 is recommended. After the concrete has been prepared the slab must be vacuumed free of all dust, dirt, and debris prior to the application of ENDURIT MRS-EM400.

On concrete slabs that have had prior flooring failures, it is strongly recommended that core samples be taken to identify the cause of failure.

Joints and Cracks

Non-moving joints and cracks on concrete should be cleaned and/or routed out prior to being filled with ENDURIT MRS-EM400.

Expansion joints should be honored using the detail shown below. Allow coating to cure before applying sealant.



Application Instructions

Mixing: Add 2 gallons of ENDURIT MRS-EM400 A-Side, 1 gallon of MRS-EM400 B-Side into a running mortar mixer. Immediately add 200 pounds of MRS-EM400 Aggregate. Mix for 3 minutes. Transfer to a screed box to apply to the floor. **DO NOT LEAVE ANY MORTAR IN THE MIXER AS IT WILL HARDEN!**

Colors: If an overlay is being performed color packs are available. Color Packs should be added to the mixer prior to the addition of the MRS-EM400 Aggregate.

For overlays, apply mixed ENDURIT MRS-EM400 at a rate of 3/16 to 1/4 inch to the floor surface using a screed box. Power or hand trowel the wet mortar to compact the MRS-EM400, remove voids and make the floor smooth and dense. Care should be taken not to over trowel as blisters can develop.

For cracks and spalls, depending on depth, apply material in several lifts, troweling each layer to remove voids and to compact the mixed MRS-EM400.

Curing: . Only open the floor to light traffic after sufficient cure, allow more time for low temperatures and higher humidity or for heavy traffic. Full product properties may take up to 7 days to develop.

Note: If a slurry is desired for repairing spalls and other defects, mix at a ratio of 1 part resin(mixed) to 3 parts sand.

Storage

ENDURIT MRS-EM400 has a shelf life of twelve (12) months from date of manufacture in original, factory sealed containers when stored at 75°F.

Packaging

2.03 Cubic Foot Kit Includes:

- 2 gallon pail of ENDURIT MRS-EM400 A-Side
- 1 gallon pail of ENDURIT MRS-EM400 B-Side
- 200 pounds of ENDURIT MRS-SM 400
- Optional Color Packs: MRS-CP4**

Safety Precautions

Consult the **ENDURIT MRS-EM400** material safety data sheet (MSDS) for more complete information on product health, safety, and handling.

Avoid skin and eye contact.

Eye Contact: Flush immediately with water and consult a physician.

Skin Contact: Wash immediately with soap and water.

Avoid prolonged exposure to vapors. Ventilation should be provided during installation and curing.

Warranties

BESSERN warrants that its product shall be in accordance with the specifications published in the current product data sheet. *BESSERN* will, in the event any of its products fail to meet their published specifications, replace those products proved to be defective.

BESSERN shall not be responsible for any incidental or consequential damages due to the breach of its warranties. Notwithstanding the foregoing, *BESSERN's* sole liability hereunder shall not exceed the cost of the defective product originally purchased.

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