

PRODUCT DESCRIPTION

MC 440 is a 100% solids high build epoxy coating/mortar designed to provide sealing, repair and protection of substrates, which will be exposed to chemical and physical environments. It is formulated to have outstanding adhesion, toughness and impact resistance. Ideal as a high-build overlay or repair mortar for livestock facilities.

GENERAL USES

An attractive coating for floors, walls, berms or other areas in facilities with chemical exposure. Excellent choice for mixed or unknown chemicals for secondary containment applications. Ideal repair mortar for harsh environments.

Specialty uses include:

- May be reinforced with fiberglass for additional strength.
- May be made non-slip by using aggregate broadcast.
- Mix with MC admix to create a chemical resistant mortar for patching or overlays.

FEATURES

- Chemical resistance
- Solvent resistant
- Abrasion resistant
- Good UV resistance
- No odor or fumes
- High gloss finish
- 100% solids
- High Build capabilities

STANDARDS

Complies with USGBC EQ Credit 4.2: Low - Emitting Materials: Paints & Coatings under Indoor Environmental Quality. VOC compliant.

INSTRUCTIONS FOR USE

Surface Preparation

The surface to be coated must be clean, sound, and free of dirt, oil, rust, standing water, paint, laitance, or any other contaminant that can interfere with the bonding of the coating of the surface. The surface can be prepared by sandblasting, shot blasting, scarifying, chipping or chemical etch. Substrates may be damp surface-dry. New concrete must be cured at least 28 days. New concrete must be properly prepared as stated above. Substrate temperature must be greater than 50°F (10°C).

Mixing

Prior to mixing, condition the coating components to a temperature range of 65°F to 80°F. (18°C to 27°C) for optimum installation characteristics and pot life. Open the Component A and Component B containers and stir the contents of Component A only. Mix component A until uniform and no settled material can be felt on the bottom of the container. Use the same mixing implement to pre-mix all Component A units. Do not pre-mix the Component A units with an

implement that has curing agent on it, because this can contaminate the Resin and affect the pot life. Add all of Component B to Component A and mix for 3 to 5 minutes using another mixing implement. Thoroughly scrape the sides of the container while mixing. Thorough mixing is important to assure a positive cure for maximum performance. Mixing is best accomplished using a Jiffy® mixer or equivalent mixer powered by a drill motor operated at approximately 400 - 1000 rpm. Mixing too fast can whip air into the coating. No induction period is required.

Test Data

Mix Ratio	2:1 by volume
Viscosity Mixed	1200 CPS
Pot Life	40 minutes
Tack Free to Touch	4-6 hours
Initial Cure	24 hours
Final Cure	7 days
Hardness	80 Shore D
Tensile Strength	6900 PSI
Rate of Application	75-125 sq.ft/GI
Slant Sheer Bond	2200 PSI

Application

Apply MC 440 at a rate selected for the application as described in the Coverage section below. Application can be accomplished by brush, roller (short nap or foam), or notched squeegee.

To avoid pin holing, apply two coats, each at one half the final selected mil thickness. Apply the coats at a 90-degree angle to each other. Apply the second coat as soon as the first coat is dry to the touch to assure good adhesion between coats. Spike shoes are recommended.

For non-skid applications, apply a base coat of 10 mils over the substrate. While wet, broadcast (to excess) the selected aggregate uniformly (no piles) over the base coat until the floor is completely covered with a dry layer of aggregate. When the base coat has cured sufficiently to allow walking on it, broom off all excess aggregate and apply a second coat of MC 440. This process produces a 1/16th inch (62.5 mil) overlay.

Overlays: combine 1.5-gallon (5.7 kg) mixed epoxy with 32 lbs. (14.5 kg) of MC Admix and mix thoroughly. Apply using notched trowel or gauge rake at 3/16th inch to ¼ inch thickness (28 sf/2.6 sm to 21 sf/1.93 sm). Broadcast selected aggregate to saturation over the wet epoxy (approximately 32 lbs. (14.5 kg) per batch.

Mortar: combine .5-gallon (1.9 kg) mixed epoxy with 32 lbs. (14.5 kg) MC Admix and mix thoroughly to make a stiff repair mortar. Coverage: Approximately 16 sf/1.44 sm at 1/4"/.625 cm.

Curing

Initial cure is 12 hours @ 70°F (21°C). Final cure is 36 hours @ 70°F (21°C).

Coverage

Typical coverage @ 10 mils is 140 sq. ft. /gallon as a coating

Cleaning

Prior to curing, M-Chem MC 440 may be removed from tools and equipment using xylene, lacquer thinner, or MEK.

Colors: medium gray, clear

PACKAGING

- .5-gallon kits
- 1.5-gallon kits
- 15-gallon kits
- Admix: 32 lb. bag

VOC content: 0.0 g/L. Complies with USA and Federal AIM VOC standards.

Refer to Safety Data Sheets prior to use

LIMITATIONS/WARNINGS

Temperature resistance up to 250°F (121°C), dry, depending on the individual exposure. For exposure to corrosive chemicals and elevated temperatures, contact your local M-Chem Solutions LLC representative for specific recommendations.

Color and gloss variation may occur due to induction and heat/ dry time cure cycles used or if subjected to moisture before curing is complete. Chalking will occur with extended exposure to sunlight.

Good housekeeping is necessary for all protective chemical resistant coatings. When spills or contamination occur, immediate cleanup is best. Delay in cleanup can result in stains, coating attack and require replacement or repair.

TECHNICAL SERVICES

M-Chem Solutions LLC - Chemical Technical Service Department provides complete product and technical support.

Limited Warranty: Subject to the conditions and limitations stated below, M-Chem Solutions LLC ("M-Chem") warrants this product to be free from manufacturing defects for a period of one (1) year from the date of purchase of the product. As conditions of this limited warranty, you may be required. At the option of M-Chem to provide proof of product purchase and use. **DISCLAIMER:** THIS LIMITED WARRANTY IS GIVEN IN LIEU OF ANY OTHER WARRANTY, EXPRESS OR IMPLIED, THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES BASED ON SAMPLES OR ORAL STATEMENTS, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. **IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED.** **EXCLUSIVE REMEDY:** The sale and exclusive remedy for a breach of this limited warranty is replacement of the M-Chem product that is proven defective. In the event this sole and exclusive remedy fails of its essential purpose, the liability of M-Chem is limited to return of the original purchase price. **EXCLUSION:** M-Chem is not responsible for workmanship not in accordance with M-Chem instructions and industry standard guidelines. **M-Chem IS NOT LIABLE FOR ANY INCIDENTAL DAMAGES OR CONSEQUENTIAL DAMAGES, INCLUDING LOSSES DUE TO DELAYS, INCURRED BY THE PURCHASER OR ANY OTHER PARTY.**
