EP-MV

MULTI-PURPOSE, HIGH-MODULUS, MEDIUM-VISCOSITY BONDING ADHESIVE

DESCRIPTION
EP-MV is a 100% solids, two-component, high-modulus, medium-viscosity, moisture-insensitive, structural epoxy adhesive.

APPLICATIONS
EP-MV is designed as an adhesive for bonding freshly mixed concrete to hardened concrete, for bonding hardened concrete to hardened concrete and other materials, and as a binder for epoxy mortars. EP-MV may also be used for anchoring bolts or dowels and reinforcing steel in concrete.

ADVANTAGES
- Medium viscosity formula works well in bulk dispensing pumps for efficient application
- Moisture insensitive for use in damp environments
- High modulus
- Excellent adhesion to most materials makes for a versatile, multi-purpose structural epoxy adhesive

COMPLIANCES
- ASTM C881 (Type I, II. Grade 2. Class B & C.)
- AASHTO M235
- VOC compliant, 0 g/L

PACKAGING
21.2 oz cartridge
- side by side cartridge (1:1 mix ratio)
- 12 cartridges per case

1-gallon unit
- Component A: (1) ½-gallon can
- Component B: (1) ½-gallon can

2-gallon unit
- Component A: (1) 1-gallon can
- Component B: (1) 1-gallon can

10-gallon unit
- Component A: (1) 5-gallon pail
- Component B: (1) 5-gallon pail

Appearance of Components: A - Clear, B - Amber
Shelf Life: 2 years in original unopened container
Storage: 40°F to 95°F in dry and dark conditions
Temperature Considerations: IMPORTANT! Epoxy Resins are temperature sensitive and care should be taken to condition all components to between 65°F to 85°F for a minimum of 24 hrs. prior to mixing and placement. Temperatures colder than stated range increase viscosity of resins and inhibit mixing and flow of materials. Temperatures warmer than stated range decrease viscosity of resins, hasten the cure and reduce the working time. Mixing and curing at less than ideal temperatures, <60°F or >95°F, will require special considerations.

COVERAGE
Apply EP-MV at a thickness of approximately 20 mils [80 sq. ft. /gallon]. One gallon will yield 231 cubic inches.

CURE TIME
Use the table below to determine minimum cure times based on the temperature of the materials and the substrate.

	Average Temperature of Materials & Substrate (°F)					
Cure Temp	60-64	65-69	70-74	75-79	80-84	85+
Cure Time	8 hrs	7 hrs	6 hrs	5 hrs	4 hrs	3.5 hrs

*Set times are merely averages, site conditions will dictate actual cure response.

INSTALLATION
Surface Preparation: Surface to be bonded must be clean and sound. Remove oil, dirt, grease, laitance, curing compounds and other foreign matter that may cause a problem with bond. Abrasive cleaning and mechanical removal methods are recommended. All drilled holes must be cleaned with a cylindrical bristle brush to remove all loose material. Use clean, oil free, compressed air to blow out any remaining dust or debris prior to installation.

Mixing: CARTRIDGE: Remove the protective cap from the adhesive cartridge and insert the cartridge into the recommended dispensing tool. Before attaching the mixing nozzle, balance the cartridge by dispensing a small amount of material until both components are flowing evenly. Screw the provided mixing nozzle on to the cartridge (do not modify mixing nozzle). Confirm that internal mixing element is in place prior to dispensing adhesive. Begin squeezing a small amount of material from the mixing nozzle onto a disposable surface until the material extruded is a smooth uniform color with no streaks. Material with an off color or streaking is not properly mixed and will not set properly or perform as expected. Do not use this part for installation. Once the proper mixture is achieved, discard the material that was initially extruded from the nozzle per federal, state, and local regulations, then begin installation. BULK: Mix equal volumes of Component A and Component B for 3 minutes with a low speed drill (300 rpm), jiffy mixer, or paddle. Mix only what can be used during the pot life.

Placement: As a structural adhesive and for bonding fresh concrete to hardened concrete, apply the EP-MV material neat by brush, roller or spray and work into substrate. While EP-MV is still tacky, place the fresh concrete.

For anchoring dowels, bolts, reinforcing steel, etc., the depth of the hole should be approximately 9 to15 times the bolt diameter. The space (annulus) around the bolt in the hole should not exceed 1/8". Always dispense the EP-MV into the anchoring hole filling from the bottom up. Insert the bolt, dowel or anchor turning slowly during insertion. After insertion, the hole should be completely full of epoxy.

To produce a mortar for patching repairs, mix 1 to 4-1/2 parts by volume clean, dry, well graded silica sand to 1 part by volume of mixed EP-MV. Mix thoroughly until all of the sand is wet and evenly dispersed. First, apply a prime coat over the area to be repaired with the neat EP-MV. Place the mortar, working it well into the surface of the concrete before the prime coat becomes tack free. Lifts should not exceed 1" in thickness.

E-Chem, LLC | 4102 El Rey Rd. SE | Albuquerque, NM 87105 | Phone: 505-217-2121 | Fax: 505-217-3721
www.e-chem.net

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LIMITATIONS

- For professional use only
- Always test a small amount of EP-MV to ensure that the product is mixed properly and thoroughly and that the material will harden properly before proceeding with the installation.
- If the EP-MV is no longer tacky during bonding operations, and within 16 hours after application of the bonder, clean and solvent wipe the area and re-apply the EP-MV epoxy.
- If more than 16 hours has lapsed since application, the area must be lightly sanded or abraded and solvent wiped clean prior to re-application of the EP-MV.
- Consult E-Chem representative when mixing or placing outside of the temperature recommendations listed.

CLEAN UP

EQUIPMENT: Uncured material can be removed with C-Clean100 or approved solvent. Cured material can only be removed mechanically.
MATERIAL: Collect with absorbent material. Flush area with water. Dispose of in accordance with local, state and federal disposal regulations.

CAUTIONS

READ SDS PRIOR TO USING PRODUCT!

- Component A: Irritant
- Component B: Corrosive
- Product is a strong sensitizer. Use of safety goggles and chemical resistant gloves are recommended.
- Use in a well-ventilated area and avoid breathing vapors
- Use of a NIOSH/MSHA organic vapor respirator is recommended if ventilation is inadequate.
- Avoid skin contact
- Do not take internally
- Keep out of reach of children

FIRST AID

EYE CONTACT: Flush immediately with water for at least 15 minutes. Contact physician immediately.
RESPIRATORY CONTACT: Remove person to fresh air.
SKIN CONTACT: Remove any contaminated clothing.
Remove epoxy immediately with a dry cloth or paper towel. Solvents should not be used as they carry the irritant into the skin. Wash skin thoroughly with soap and water.
IF INGESTED: Do not induce vomiting. If swallowed give water to drink. Seek medical treatment immediately.
GENERAL: Remove contaminated soaked clothing immediately. In the event of persistent symptoms receive medical treatment.
CURED EPOXY RESINS ARE INNOCUOUS.

WARRANTY

This product is warranted and guaranteed to be of good quality. Manufacturer, as its sole and exclusive liability hereunder, will replace material if proved defective. This warranty and guarantee are expressly in lieu of all others, express or implied, including any implied warranty of merchantability or fitness for a particular purpose and may not be extended by representatives or any persons, written sales information, or drawing in any manner whatsoever. While the manufacturer recommends uses for the product based on tests believed reliable, no warranties, express or implied, or guarantees can be given as to particular methods of use or application, nor can performance be warranted, expressly or impliedly, or guaranteed under special conditions. Distributors, salespersons or company representatives are not authorized to extend or vary any warranties or guarantees beyond those outlined herein, nor may the manufacturer's or seller's limitation of liability be waived or altered in any manner whatsoever.

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