MM-80 KRP

KEVLAR® ENHANCED REPAIR PRODUCT

REPAIR MORTAR KIT

Kevlar© Enchanced Heavy-Duty, Semi-Rigid Epoxy Mortar
for Class 6-9 Industrial Concrete Floors

TECHNICAL DATA M-1KRPK

1. Product Name

MM-80 KRP Kit

2. Manufacturer

METZGER/MCGUIRE
PO Box 2217 Concord, NH 03302 (USA) Phone: 603-224-6122
Fax: 603-224-6020 Web: www.metzgermcguire.com

3. Product Description

Composition

MM-80 KRP Kit is a three-component, 100% solids faster set semi-rigid epoxy repair mortar. When cured, MM-80 KRP Kit is a semi-rigid (hard but slightly resilient) repair mortar with a Shore hardness of A98+.

Basic Use

MM-80 KRP Kit was developed to repair and protect joints in interior industrial concrete floors that are subject to hard wheeled material handling traffic and heavy loads. Its primary function is to support such traffic and protect joint edges from spalling. MM-80 KRP Kit is designed for use in areas where final temperatures are from 40˚F (10˚C) to +120˚F (49˚C).

Related Products

MM-80 KRP is available in two versions: MM-80 KRP Kit, which consists of three components and includes a pre-engineered aggregate blend. MM-80 KRP is also available in 10 gallon kits by special order. Call for details. Both are available in silicone-free formulations for use in automotive/paint facilities.

4. Limitations

MM-80 KRP Kit is not designed for use in:

- True expansion/isolation joints
- Exterior joints (paving, etc.)
- Joints exposed to extreme chemical exposure
- Joints under VCT/seamless floor coverings (in most settings)

As with most semi-rigid joint fillers, MM-80 KRP Kit may yellow or discolor if exposed to:

- UV rays from certain types of lighting
- Temporary and/or propane heating systems
- External environmental factors and/or chemical components

Discoloration is more likely when material installation occurs in colder temperatures. Please refer to Technical Bulletin T10 for additional information.

5. Advantages

MM-80 KRP's backbone is a faster setting formulation of our MM-80P and is further enhanced with Kevlar©. When combined with the KRP Kit's pre-engineered aggregate blend it creates a high Shore A semi-rigid mortar with superior durability and toughness in wider joint exposures.

MM-80 KRP Kit's superior formulation yields sufficient rigidity to support loads crossing joints, protecting edges from spalling, and sufficient resiliency to prevent brittleness throughout the floor's service life.

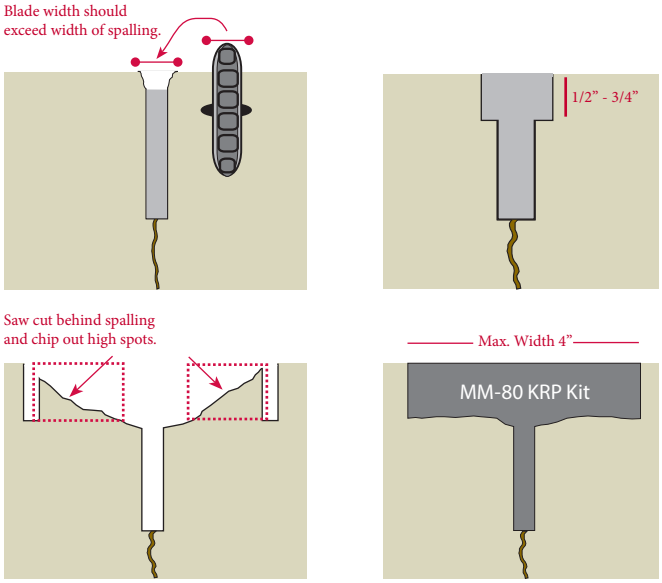
Because MM-80 KRP Kit is a semi-rigid mortar, it will not weld or restrain slab movement and eliminates the need to rehonor and refill the control joint in the repair area as is necessary when structurally rebuilding wide joints.

MM-80 KRP Kit is a faster setting semi-rigid epoxy mortar and allows access to repaired joints in as little as 3-4 hours after placement vs. 8-12 hours for standard aggregate-modified semi-rigid epoxy joint fillers.

MM-80 KRP Kit is a available in 4 colors (Dovetail Gray, Standard Gray, Porpoise and Natural) to best blend in repairs aesthetically with the floor canvas.

6. Correct Joint Design/Installation

MM-80 KRP Kit should be installed full joint depth in widened saw-cut control joints (or 2" min. in joints where depth exceeds 2") per PCA and ACI guidelines. In widened construction (formed) joints that are not saw-cut, MM-80 KRP Kit should be installed a minimum of 2" deep. Where joint spalling has been sawn out, leaving a "T" shaped joint profile, the top portion of the T should be sawn at a minimum depth of 1/2"-3/4" deep to ensure MM-80 KRP Kit has sufficient sidewall contact to remain properly bonded under wheeled traffic. Prepared joint profile should never be "feather edged."



7. Packaging and Colors

MM-80 KRP Kit is available in pre-measured kit which includes 1 gallon Part A Resin, 1 Gallon Part B Hardener and 2 gals. engineered aggregate blend. Available colors are Dovetail Gray, Standard Gray, Porpoise and Natural. Net mortar yield of kit is approximately 780 cubic inches or 3.4 U.S. gallons.

8. Applicable Specifications

There are no government or ASTM standards for semi-rigid repair mortars. MM-80 KRP Kit meets or exceeds the criteria outlined in the following industry standards for semi-rigid joint fillers:
American Concrete Institute (ACI) Guides/Specifications:
301-16, 302.1-R15, 310-R13, 360R-10
Portland Cement Association (PCA) Concrete Floors on Ground (2008)

9. TECHNICAL PROPERTIES

	TEST METHOD	RESULTS
HARDNESS, SHORE "A" @ 70˚F	D-2240	A98+
TENSILE STRENGTH	D-638	833 PSI
ELONGATION @ BREAK	D-638	7.58%
ADHESION TO CONCRETE	D-4541	300-350 PSI
FLEXURAL STRENGTH	D-790	711 PSI
POT LIFE @ 70˚F	-	5-8 MINS.
INITIAL CURE @ 70˚F	-	2.5-4 HOURS
LIGHT TRAFFIC READY @ 70˚ F	-	2.5-4 HOURS
FULL TRAFFIC READY @ 70˚ F	-	4-6 HOURS
MIX RATIO, LIQUIDS (by volume)	-	1A:1B
SOLIDS CONTENT	-	100%
SHRINKAGE	-	Negligible

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10. USDA/FDA/CFIA/LEED v4.1 Acceptability

MM-80 KRP Kit is acceptable for use in floors subject to inspection/regulation by USDA/FDA and Environment Canada/CFIA. MM-80 KRP Kit contains no VOC's and fully complies with all LEED v4.1 green building standards.

11. Technical Assistance

Complete technical support and literature are available from authorized distributors, through our website (www.metzgermcguire.com) or by contacting our NH headquarters at (800) 223-MM80.

12. Where to Specify and File

MM-80 KRP Kit is exclusively for use in repairing/maintaining contraction/control and construction joints in interior cast-in-place concrete floors. It should be specified in 030130 Maintenance of Cast-In-Place Concrete or 030130.71 Rehabilitation of Cast-In-Place Concrete.

13. Availability

MM-80 KRP Kit is available through quality construction supply distributors (listing at www.metzgermcguire.com) or through our NH headquarters.

14. Installation

The following instructions are ABBREVIATED. Complete instructions are provided with each shipment.

Joint Preparation - Joints should be completely free of saw laitance, dirt, debris, coatings/sealers and frost or visible moisture. Joint cleaning procedures must accomplish the removal of all of the above. Failure to do so will compromise adhesion. Simply "raking" debris out of spalled joint is not an acceptable cleaning method. Preferred method of joint cleaning is to use a dustless concrete saw with diamond blade. No primer is needed.

Where joint spalling exceeds the width of the joint, spalled edges should be removed by sawing behind the spall to encapsulate all spalling or through the use of a milling type saw. Once prepared, any high spots should be chipped out, leaving a new channel at a nominal depth of 1/2" - 3/4" minimum along the edge of the original joint. The resulting joint profile should approximate a "T" shape. New joint channel should be vacuumed clean prior to installation.

Because MM-80 KRP Mortar is fairly thick, there is typically no need to choke-off the shrinkage crack at the base of the joint. Do not use compressible backer rod (Ethafoam, etc) as a base in saw cut joints less than 2" deep. The applicator may use a compressible backer rod in saw cut joints or through-slab construction (cold) joints ONLY if the rod is placed at least 2" below floor surface.

Prior to Dispensing

Caution: Thoroughly read SDS and complete installation instructions prior to opening containers or attempting to dispense.

Mixing - Use a variable speed drill at low RPM and a paint mixing paddle (Jiffy or similar) to pre-mix MM-80 KRP Parts A and B (different paddle for each) for approximately 60-90 seconds to redisburse components. Gradually blend pre-mixed Part B into pre-mixed Part A and mix until thoroughly blended (approximately 60-90 seconds). Do not dilute or alter material. After Parts A and B are blended, gradually add Part C aggregate to the mixed material using a paint mixing paddle. Continue to mix the mortar until all aggregate is thoroughly coated - approximately 1-2 minutes.

Dispensing - MM-80 KRP Kit has a viscosity similar to a thick pancake batter. Best results are obtained by dispensing through a through a bulk-type caulking gun or by pouring from the kit's bucket or smaller containers. MM-80 KRP Kit is not designed for use with dual component pumps due to abrasive additives.

Installation - MM-80 KRP Kit may be installed using a one pass method. Check joints periodically to ensure low spots do not occur due to seepage. Material should be installed slightly high or "crowned." Do not fill flush and leave, as low

14. Installation (Continued)

or concave filler profile is likely to occur. Allow material to cure into solid (approx. 2.5-4 hours @ 70°F) and grind overfill material flush with floor surface using a cup wheel, ceramic disc or similar.

Clean-Up

Spills of unmixed components can be cleaned up with solvent (Toluol, Xylol, MEK, Denatured Alcohol, etc). Cured product can be scraped or shaved off floor and tools.

15. Maintenance

Once cured, MM-80 KRP Kit is basically maintenance free. If joints should open after installation due to concrete shrinkage or movement , fill any voids exceeding credit card width (1/32") with additional MM-80P/P FS, MM-80 or Metzger/McGuire's Edge-Pro 90. Refer to Technical Bulletin T11 (Joint Filler Separation; Causes & Corrections) for additional information.

16. Coverage

One unit will yield approximately 780 cubic inches or 3.4 gallons of semi-rigid epoxy mortar.

17. Shelf Life and Storage

MM-80 KRP Kit has a guaranteed shelf life of 12 months if containers remain unopened. Store in dry, cool areas away from excessive heat, freeze/thaw and sunlight. See complete installation instructions for information.

18. Safety

This product is for industrial use only. Use only in well ventilated areas. Practice all normal jobsite safety precautions (clear work area, etc). Thoroughly read and understand SDS and installation instructions for additional information prior to using material.

19. Food Related Facilities

USDA limits the use of chemicals in areas where existing food/food packaging is present. See "Food Warning" in installation instructions. When cured MM-80 KRP Kit, is acceptable in USDA/FDA/CFIA regulated facilities.

REVISED 01/25