

MM-80

The Industry Standard

The Industry Standard Heavy Duty, Semi-Rigid Epoxy Joint Filler for Class 6-9 Industrial Concrete Floors

Technical Data M-1



1. PRODUCT NAME

MM-80

2. MANUFACTURER

Metzger/McGuire

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3. PRODUCT DESCRIPTION

Composition

MM-80 is a two-component, 100% solids content epoxy joint filler. When cured, **MM-80** is a grey, semirigid (hard but slightly resilient) filler with a Shore hardness of A90-95.

Related Products

MM-80 is available in two versions: original **MM-80** in a 5:1 mix ratio for manual dispensing and **MM-80 P** for pump), with a 1:1 mix ratio for dual-component pumps.

Both **MM-80** and **MM-80P** are available in silicone-free formulations for use in automotive/paint facilities.

Basic Use

MM-80 was developed to fill and protect joints in 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. **MM-80** is designed for use in areas where final temperatures are from 10°C to +49°C. It is also ideal for joint and crack repair.

4. LIMITATIONS

MM-80 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)

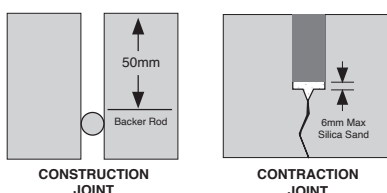
As with most semi-rigid joint fillers, **MM-80** may yellow or discolour if exposed to:

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

Discolouration is more likely when material installation occurs in colder temperatures.

5. CORRECT JOINT DESIGN/INSTALLATION

MM-80 should be installed full joint depth in saw-cut control joints (or 50mm minimum in joints where depth exceeds 50mm) per PCA and ACI guidelines. In construction (formed) joints that are not saw-cut, **MM-80** should be installed 50mm deep. If shrinkage crack is excessive and needs to be "choked off," it may be sealed with clean, dry silica sand as shown below (contractor's option).



Do not use compressible backer rod in saw cut contraction/control joints less than 50mm deep. Compressible rod may be used as a base in construction joints if placed 50mm below floor surface.

USGBC LEED® EQ Credit 4.1 - Low Emitting Sealant

6. COLOUR AND PACKAGING

Standard colour is medium grey. **MM-80** can be custom coloured. Contact Metzger/McGuire for details. **MM-80** is available in a 38L kit.

7. APPLICABLE SPECIFICATIONS

There are no government or ASTM standards for semi-rigid joint fillers. **MM-80P** meets or exceeds the criteria outline in the following industry standards:

American Concrete Institute (ACI) Guides/Specifications: 301-16, 302.1-R15, 310-R13, 360R-10, Portland Cement Association (PCA): Concrete Floor on Ground, Third Edition 2008

8. ADVANTAGES

MM-80'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 life.

MM-80 is also available in a silicone free version for use in paint and automobile facilities.

MM-80's relative hardness has been gradually increased through the years to reflect increasing demands on floors created by heavier loads and smaller, harder vehicle wheels.

MM-80 is the joint filler upon which ACI and PCA standards are based. You can specify and use **MM-80** with the confidence that comes from a project-proven track record of more than forty-five years, and with the knowledge that you are relying on the best floor joint protection available in the industry.

9. USDA/FDA/CFIA/LEED® ACCEPTABILITY

MM-80 is acceptable for use in floors subject to inspection/regulation by USDA/FDA and Environment Canada/CFIA.

MM-80 contains no VOC's and fully complies with all LEED® green building standards.

10. TECHNICAL ASSISTANCE

Complete technical support and literature are available from authorised distributors, through our web site (www.metzgermcguire.com) or by contacting our New Hampshire headquarters at (800) 223-MM80.

11. TECHNICAL PROPERTIES

	TEST METHOD	RESULTS
HARDNESS, SHORE "A" @ 21°C	D-2240	A90-95
TENSILE STRENGTH	D-638	1300 PSI
TENSILE ELONGATION @ 21°C	D-638	45-55%
ADHESION TO CONCRETE	D-4541	300-350 PSI
POT LIFE @ 21°C	-	15-30 MINS
INITIAL CURE @ 21°C	-	6-8 HOURS
LIGHT TRAFFIC READY @ 21°C	-	6-8 HOURS
FULL TRAFFIC READY @ 21°C	-	8-12 HOURS
MIX RATIO (by volume)	-	5:1
MIX RATIO (by weight)	-	100:15
SOLIDS CONTENT	-	100%
SHRINKAGE	-	Negligible

* This property provided only for comparison with other fillers. Elongation does not directly correlate to lateral expansion capacity.

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12. QUALITY INSTALLATION PROGRAM

When you specify “MM-80, No Substitutes” your project is eligible for our Quality Assurance Program. This project tracking program helps ensure that MM-80 is properly installed. There is no charge for this service.

13. WHERE TO SPECIFY AND FILE

MM-80 is exclusively for use in filling or maintaining contraction/control and construction joints in cast-in-place concrete floors. It is not an elastomeric sealant, and if referenced in the 079000 section it should only be specified under **079216 Rigid Joint Sealants**. Ideally the product should be specified in **030130 Maintenance of Cast-In-Place Concrete** or **030130.71 Rehabilitation of Cast-In-Place Concrete**.

14. AVAILABILITY

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

15. INSTALLATION

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

When to Install - The installation of MM-80 should be deferred as long as possible after slab placement, and should not be installed prior to 30 days to ensure adequate adhesion. ACI recommends a slab cure of 60-90 days or longer, to permit for greater concrete shrinkage/joint opening, lessening the expected incidence of joint filler separation. Ambient areas should be stabilised at final operating temperature prior to installation, refrigerated areas stabilised and held for an additional 7-14 days or longer, if possible. Refer to Technical Bulletin T5 (Filler Installation Timing) for additional information.

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 joint is not an acceptable cleaning method. The preferred method of joint cleaning is to use a dustless concrete saw with diamond blade (ensure blade is slightly wider than joint or clean both sides). No primer is needed. If unusual conditions are present, contact Metzger/McGuire.

If possible concrete staining from joint filler overfill is an issue, apply Metzger/McGuire’s SPF (stain preventing film) prior to material installation, being careful to prevent SPF from entering joints, as it may compromise adhesion. If SPF enters joints, clean joints as outlined previously.

The applicator may, at his option, choke-off the shrinkage crack at the base of the joint with a 6mm maximum layer of clean, dry silica sand. Do not use compressible backer rod (Ethafoam, etc) in saw cut joints less than 50mm deep. The applicator may use a compressible backer rod in through-slab construction (cold) joints or contraction/control joints exceeding 50mm in depth ONLY. If used, the rod must be placed at least 50mm 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 mix MM-80. Mix Part A

thoroughly before combining. Gradually blend Part B into Part A and mix for approximately 1.5 minutes or until thoroughly blended. Do not dilute or alter material. Mix entire kit.

Dispensing - MM-80’s viscosity is similar to a medium weight motor oil. It can be poured from can, but best results are obtained by dispensing through a bulk-type caulking gun or a dual-component dispensing pump ratioed at 5:1.

MM-80 should be installed using a two pass method. The first pass should fill the joint to within 12mm of floor surface. Within 60-90 minutes (at 21°C) overfill joint with a second pass, leaving material “crowned” above floor.

Check joints periodically to ensure low spots do not occur due to seepage. Do not fill flush and leave, as low filler profile is likely to occur. Allow material to cure into solid (approximately 6-8 hours minimum) and shave or grind material flush with floor surface. If shaving, heat material lightly with propane torch or other heating source prior to shaving to ease the shaving process and ensure a smoother filler profile. Use respirator mask if heating overfill.

Any overfill not removed during razoring may leave a slight stain on concrete. The degree of staining will depend on the surface density (porosity) of the slab. The stain will gradually fade as a result of subsequent traffic and floor cleaning procedures. Stains can be reduced or avoided by using Metzger/McGuire’s SPF (stain preventing film). See product data for more information.

Clean-Up

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

16. MAINTENANCE

Once cured, MM-80 is basically maintenance free. If joints should open after installation due to concrete shrinkage, fill any voids exceeding credit card width with additional MM-80 or Metzger/McGuire’s Spal-Pro RS 88. Refer to Technical Bulletin T11 (Joint Filler Separation; Causes & Corrections) for additional information.

17. APPROX. COVERAGE RATES

JOINT SIZE (METRIC)	Mtr/L
3mm x 38mm	7.9
3mm x 44mm	6.8
3mm x 50mm	6
3mm x 19mm	10.8
3mm x 25mm	7.9
3mm x 31mm	6.8
3mm x 38mm	5.5
3mm x 44mm	4.7
3mm x 50mm	3.9
3mm x 25mm	6.3
3mm x 31mm	4.7
3mm x 44mm	3.7
3mm x 50mm	3.1
3mm x 25mm	3.9

18. SHELF LIFE AND STORAGE

MM-80 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.

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19. 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.

20. FOOD RELATED FACILITIES

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

21. MATERIAL WARRANTY

WARRANTY: Metzger/McGuire Co. solely and expressly warrants that its product shall be free from defects in material and workmanship for 12 months from the date of purchase. Unless authorised in writing by an officer of Metzger/McGuire, no other representations or statements made by Metzger/McGuire or its representatives, in writing or orally, shall alter this warranty. Metzger/McGuire makes no warranties, implied or otherwise, as to the merchantability or fitness for ordinary or particular purposes of its products and excludes the same. If any Metzger/McGuire product fails to conform with this warrant, Metzger/McGuire will replace the product at no cost to the purchaser. Purchaser's sole remedy in any case shall be limited to the purchase price or replacement cost of product and specifically excludes labor and the cost of labor, lost wages and opportunity costs, and all other possible incidental, consequential or special damages resulting from any claim of breach of warranty, breach of contract, negligence or any legal theory. Any warranty claim must be made within one (1) year from the date of material purchase. Metzger/McGuire does not authorise anyone on its behalf to make any written or oral statements which in any way alter the installation procedures or written installation instructions published in its product literature or on its packaging labels. Any installation of Metzger/McGuire products which fails to conform with such installation information or instructions shall void this warranty. Purchaser shall be solely responsible for determining the suitability of Metzger/McGuire's products for the purchaser's intended purpose.



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