

The Industry Standard

### IMPORTANT INFORMATION

- Designed for Installation at Full Saw-Cut Depth in Control/Contraction Joints or 2" Minimum in Joints Exceeding 2" in Depth
- Always Pre-Mix Part "A" (Resin) Prior to Combining with Part "B" (Hardener)
- DO NOT USE COMPRESSIBLE BACKER ROD IN SAW CUT JOINTS!

#### What is MM-80?

**MM-80** is a two-part, pour grade epoxy made specifically to protect floor joint edges against breaking (spalling), caused by the hard wheels of industrial trucks. **MM-80** requires no primer under normal conditions, is 100% solids (will not shrink) and cures to a semi-rigid hardness. **MM-80** is installed full joint depth in saw cut joints or 2" minimum in joints deeper than 2".

#### Material Storage

Store **MM-80** in a cool, dry area and protect from freezing. **MM-80** has a minimum shelf life of 12 months. If material sits for over a month, rotate cans monthly to minimize settlement.

#### Checking Job Conditions

Floors should have a minimum cure of 30 days prior to joint filling. Since concrete shrinks for many months, and shrinkage results in the widening of joints, filling should always be delayed for as long as the schedule allows. If filling in refrigerated areas (coolers), the room should be stabilized at its final operating temperature for 7-14 days or longer if possible. **MM-80** is not designed for use in temperatures under 40°F. Joints should be dry, and work area should be well ventilated.

#### Tools and Equipment

**MM-80** can be dispensed via bulk caulking gun, power dispensing pumps, or manually poured. Other equipment needed includes, but is not limited to, proper safety gear (see MSDS), drill and mixing paddle (Jiffy or equal-no flat mortar paddles), plastic mixing pails, dry silica sand, solvent (MEK or denatured alcohol), wiper cloths, razor scraper and torch, etc.

#### Installation in Food Related Facilities

USDA/FDA limit the use of chemicals in areas where existing food or food packaging can be contaminated. Contact Metzger/McGuire for further details if food products are present.

#### Stain Prevention

Proper **MM-80** installation requires that the joint be overfilled (crowned). **MM-80** overfill can cause staining along side joints. If surface staining is not acceptable, coat adjacent surfaces with "SPF" (Stain Preventing Film) manufactured by Metzger/McGuire. Apply **SPF** prior to joint cleaning procedures.

#### Joint Cleaning

**MM-80** must bond to clean, exposed concrete for the full intended filler depth. Joints must be free of saw laitance, dirt, debris, coatings, sealers, etc. The only effective means of proper joint cleaning is the use of a dry cut saw (preferably vacuum-equipped) with a diamond blade. The blade depth should extend to the intended filler depth. Run blade against each sidewall on separate passes. After cleaning joints with saw, vacuum any remaining dust/debris from joint. Simply "raking" debris out of joint is NOT an acceptable means of joint cleaning.

#### Joint Preparation

The installer may, at his option, choose to choke-off the bottom of joints to prevent filler waste/run-through. For saw cut control/contraction joints, there are 3 acceptable choke-off options:

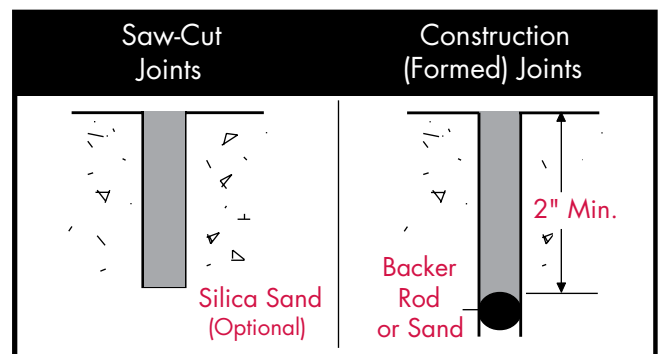
##### Contraction/Saw Cut Joint

- Apply a 1/4" deep (maximum) layer of dry, silica sand to the base of the saw cut to fill the shrinkage crack.
- Mix dry, clean silica sand into already blended **MM-80** at a ratio of 1 quart sand to 1 gallon epoxy. This sand-modified **MM-80** must be limited to the base material pass only and held at least 1/2" below the surface.
- As an alternative to sand basing, and if acceptable to project authorities, apply a 1/4" deep (maximum) bead of a Metzger/McGuire polyurea to the base of the joint (**Spal-Pro 2000** or **RS 88**). Polyurea must be dispensed through a narrow tip that will place the filler at the bottom without leaving traces on sidewalls. **Note: DO NOT USE COMPRESSIBLE BACKER ROD IN SAW CUT JOINTS.**

##### Construction/Formed Joints

For through-slab construction joints (or joints exceeding 2" depth), the installer may use silica sand or backer rod IF it is held down at least 2" from the top. Contact Metzger/McGuire for information on special conditions (armored joints, etc.).

#### JOINT DESIGN DETAIL



#### Temperature Factors

Like most epoxies, **MM-80** is affected by temperature. In warm or hot weather, **MM-80** will have a shorter pot life. To extend the working time, place the unopened A (resin) can in ice water for 30 to 45 minutes before mixing. In cooler weather, **MM-80** will have a longer pot life. To make it cure faster, warm material or allow to sit in mass after mixing for several minutes.

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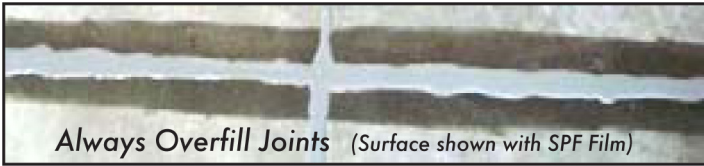
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#### Mixing MM-80 (5:1 Ratio by Volume)

Read MSDS prior to opening containers and follow all safety measures, including working in an obstacle-free, well ventilated area. Always thoroughly pre-mix Part A prior to combining with Part B to re-disperse any settlement. Due to limited pot life (15-20 minutes at 70°F), mix no more than can reasonably be dispensed. Gradually add B to pre-mixed A and mix with drill and Jiffy-type mixer at a low speed for 2-3 minutes. Mix longer than 2-3 minutes if streaking is present, or if stirring by hand. **INSTALL PROMPTLY DUE TO SHORT POT LIFE.** Do not thin or dilute **MM-80** with solvent or other substances.

#### Installation

Install first pass of **MM-80** to within 1/2" of floor surface, and allow to sit for 60-90 minutes. This will allow entrapped air bubbles to rise and sinker areas to be discovered. Make second pass and overfill joint (crown). **DO NOT USE SILICA-MODIFIED MM-80 FOR SECOND PASS.** Allow **MM-80** to cure into a full solid, usually 6-10 hours depending on temperature. Flush bulk guns with solvent regularly to prevent set-up in barrel or tip. If gun gets warm, dispense contained **MM-80** promptly.

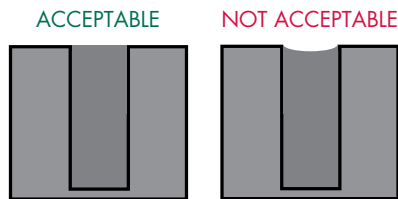


#### Caution On Chemical Cure

**MM-80** cures chemically through a reaction of parts A and B. During this chemical reaction the released fumes can be potentially harmful. The reaction causes a high heat buildup of as much as 180°F. Be extremely cautious during the cure period. Do not inhale or get epoxy on skin or in eyes; do not handle container of mixed epoxy without heat resistant gloves. See MSDS and safety information for additional information.

#### Finish Profile

To be effective as an edge-protector, **MM-80**'s final profile must be flush with the floor surface. This is achieved by razoring-off the overfill crown AFTER the **MM-80** has fully cured into a solid. This may require second day razoring. Use tile removal razor scraper or similar. If **MM-80** is difficult to razor or ratchets while razoring, apply a small amount of heat (torch, heat gun, etc.) just prior to shaving.



#### Low Spots

Low spots can occur due to sag or epoxy loss through cracks at bottom of joint. Do not try to apply a thin "cap bead" to cured **MM-80**. It will not bond. The low spots must be sawn out to a minimum depth of 1/2" and refilled with additional **MM-80**.

**WARRANTY:** Metzger/McGuire Co. solely and expressly warrants that MM-80 shall be free from defects in material and workmanship for 12 months from the date of purchase. Unless authorized 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 warranty, 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 authorize 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.

#### After the Installation

Use MEK or denatured alcohol to clean all tools. Remove spills on floor by scraping or with MEK/denatured alcohol. The floor, depending on temperature, can usually be opened to light traffic within 6-8 hours, and heavy traffic in 8-12 hours. If the floor is to be acid-etched or coated, allow approximately 7 days cure for **MM-80** (A chemical compatibility test/sample installation is also recommended prior to use). Once cured, mechanical scrubbing or most cleaners do not affect **MM-80**. Stains left on joint edges from overfilling are difficult or impossible to remove. Wire brushing with solvent/light polishing/grinding may be somewhat successful. Staining can be prevented with **SPF**.

#### Sand-Modification

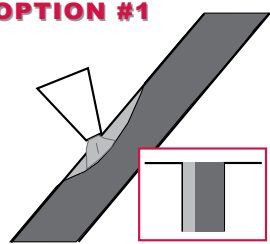
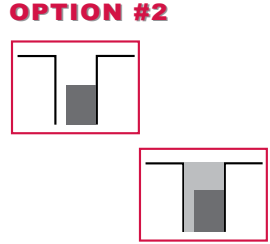
**MM-80** can be sand-modified if using manual dispense method, but will slow rate of cure. Contact Metzger/McGuire for additional information as well as recommended applications.

#### Filler Separation

Since slabs continue to shrink long after the filler installation, **MM-80** may separate adhesively or cohesively. This is not a failure of the **MM-80**. Refer to Metzger/McGuire's technical data sheet T11 on "Filler Separation" for more details on causes and corrections.



#### Filler Separation Correction

OPTION #1	OPTION #2
	
Use knife or narrow tool to loosen debris. Blow/vacuum clean. Fill (overfill) voids with Spal-Pro RS 88 Polyurea and allow to set into a solid. Razor off flush.	Saw cut out top 1/2" of epoxy. Blow/vacuum clean. Fill (overfill) voids with Spal-Pro RS 88 Polyurea or MM-80 and allow to set into a solid. Razor off flush.

#### Color Changes

Certain lighting systems can cause **MM-80** and other fillers to change color. This color change will not affect **MM-80**'s performance, but it can be aesthetically objectionable. If color change takes place, verify that UV is the cause by running a sample of **MM-80** in an area not exposed to the lights. Removing and replacing discolored **MM-80** will merely result in a color change of the second installation. Color difference will generally become less noticeable with the passage of time and repeated floor scrubbing.

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