



What is MM-80P?

MM-80P is a two-part, pour grade epoxy made specifically to protect floor joint edges against breaking (spalling) caused by the hard wheels of material handling vehicles. MM-80P requires no primer under normal conditions, is 100% solids (will not shrink), and cures to a semi-rigid hardness. MM-80P is installed full joint depth in saw cut joints or 2" minimum in joints deeper than 2". Mix ratio is 1:1 by volume.

Material Storage

Store MM-80P in a cool, dry area and protect from freezing. MM-80P has a minimum shelf life of 12 months. If material sits for over a month, rotate cans 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-80P 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-80P is designed for dispensing through dual-component power pumps. It can also be manually dispensed via bulk caulking guns or poured from a container. Other equipment needed includes, but is not limited to, proper safety gear (see MSDS), variable speed drill, Jiffy-type mixing paddles (at least 2), plastic mixing pails, dry silica sand, solvent (MEK or denatured alcohol), wiper clothes, razor scraper and torch, etc. For pump dispensing provide means of verifying ratio accuracy.

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

Joint Cleaning

MM-80P 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 to use 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. "Raking" debris out of joint is NOT an acceptable joint cleaning procedure.

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:

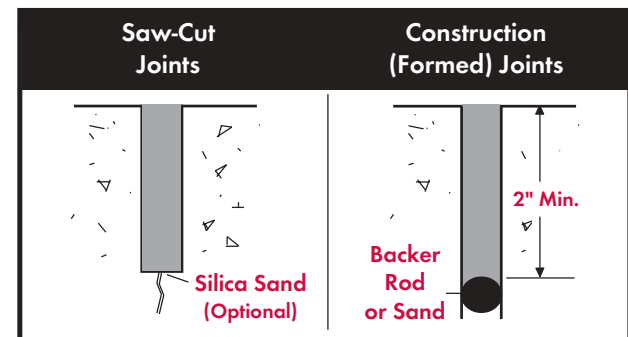
Apply a 1/4" deep (maximum) layer of dry, silica sand to the base of the saw cut to fill the shrinkage crack.

Manual Dispense Option Only: Mix dry, clean silica sand into blended MM-80P at a ratio of 1 qt. sand: 1 gal. epoxy. This sand-modified MM-80P 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.

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. **Note: DO NOT USE COMPRESSIBLE BACKER ROD IN SAW CUT JOINTS < 2".**

JOINT DESIGN DETAIL



Temperature Factors

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

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

Read MSDS prior to opening containers and follow all safety measures, including working in an obstacle-free, well ventilated area. Do not thin or dilute MM-80P with solvents, etc.

PUMP DISPENSING

Verify pump is clear of all previous materials and blockages. Separately pre-mix both parts "A" and "B" using different mixing paddles. Pour pre-mixed parts "A" and "B" into pump. Dispense sample and verify 1:1 dispensing ratio is accurate before applying static mixer to mixing wand. Conduct regular ratio checks throughout installation.



Mixing MM-80 (1:1 Ratio by Volume) continued

MANUAL DISPENSING

Pre-mix components separately as previously described. Measure out equal amounts of "A" and "B" by volume using calibrated containers. Combine equal amounts of "A" and "B" into pail and mix with drill and paddle for approx. 2-3 minutes or until thoroughly blended. Due to limited pot life (15-20 minutes at 70°F), mix no more than can reasonably be dispensed. Do not thin or dilute MM-80 with solvents, etc.

Installation

Install first pass of MM-80P 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-80P to cure into a full solid, usually 6-12 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.



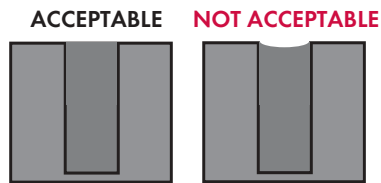
Always Overfill Joints (Surface shown with SPF Film)

Caution On Chemical Cure

MM-80P cures chemically through a reaction of parts A and B. During this chemical reaction the released fumes can be potentially harmful. The reaction may cause 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. See MSDS and safety information for additional information.

Finish Profile

To achieve maximum joint edge protection MM-80P's final profile should be flush with floor surface. Optimum flushness can be achieved only by over-filling, then razoring-off overfill after MM-80P has cured into an adequate solid.



Adequate cure may be reached on same day or later depending on slab, air and/or material temperature.

Installer should use tile remover razor scraper to remove crown. Test razoring at various times to determine when best profile can be achieved. If razoring is difficult, or if razoring operation leaves ratchet marks, gouges, etc. apply slight amount of heat to filler (with propane torch or similar) to improve shaveability.

Low Spots

Low spots can occur due to epoxy loss through cracks at bottom of joint. Do not just apply a thin "cap bead" to cured MM-80P.

Low Spots (continued)

It will not bond. The low spots must be sawn out to a minimum depth of 1/2" and refilled with additional MM-80P.

After the Installation

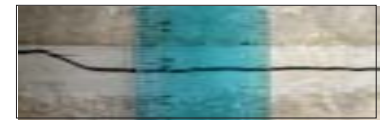
Use MEK or denatured alcohol to clean all tools. Remove spills on floor by scraping or with MEK/denatured alcohol. The floor, depending on temperature, can usually be opened to light traffic within 6-8 hours and heavy traffic in 8-12 hours. If the floor is to be acid-etched or coated, allow approximately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

Sand-Modification

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

Filler Separation

Since slabs continue to shrink long after the filler installation, MM-80P may separate adhesively or cohesively. This is not a failure of the MM-80P. Refer to Metzger/McGuire's technical data sheet T-5 on "Filler Separation" for more details on causes and correction.



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-80P and allow to set into a solid. Razor off flush.

Color Changes

Certain lighting systems can cause MM-80P to change color. This color change will not affect MM-80P's performance but can be esthetically objectionable. If color change takes place, verify that UV is the cause by running a sample of MM-80P in an area not exposed to the lights. Color difference will generally become less noticeable with the passage of time and repeated floor scrubbing.

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 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 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.