

MM80 Edge Pro XL Joint Filler

Heavy duty filler formulated specifically for Industrial floors



INTRODUCTION

This data sheet is Norton Construction Product's metric version of Metzger Mcguire's original data sheet. They are the US manufacturer of MM80 and the originator of semi rigid epoxy joint fillers.

DESCRIPTION

MM-80 is a two part liquid, 100% solids epoxy resin of concrete grey colour. When cured, MM-80 is semi-rigid (hard but slightly resilient) with shore hardness of A-80 and D-50.

MM-80 was developed specifically for use as a joint filler in industrial concrete floors subjected to hard-wheeled vehicles such as forklifts. MM-80 prevents joint edges from breaking off (spalling) as wheels make contact. MM-80 should be used in control and construction joints, whether saw-cut or formed. MM-80 can be used to fill spalled or undamaged cracks in floors and for repairing spall joints.

LIMITATIONS

Not intended for use in true expansion joints, exterior joints, tooled joints or joints subject to chemical exposure.

CORRECT JOINT DESIGN

MM-80 should be installed full depth in saw-cut control joints and 50mm (min) depth in construction joints. Base of joint must be "chocked off".

ADVANTAGES

MM-80 is superior to other joint fillers, soft or hard, because it was specifically formulated to meet the unique demands of industrial concrete floors.

- MM-80 is an epoxy compound, a product noted for its wear resistance and durability in even the most adverse uses.
- MM-80 is sufficiently rigid to support joint edges and to carry heavy loads across the joint without deflection.
- MM-80, despite its hardness, is slightly resilient, so it helps absorb wheel impact.
- MM-80's resiliency prevents it from becoming brittle with age and constant use.
- MM-80 has low-range tensile and adhesive strength. It will not "weld slab sections together", which can result in "stress cracks".

PACKAGING & COLOUR

The standard colour of MM-80 is medium grey. Packaging is in 5 litre containers packed 4/box. Larger units available by request.

Table 1 – Technical Information

Property	Test	Result
Hardness, Shore "A"	-	80(-0,+10)
Hardness, Shore "D"	-	50(-0,+5)
Tensile Strength	D-638	2.5-4.5MPa
Tensile Elongation	D-638	121%
Adhesion to Concrete	D-4541	1.7-2.4MPa
Compressive Yield	D-695	10.2MPa
Pot Life @ 20°C	-	15-20mins
Initial Cure @ 20°C	-	4-8hrs
Traffic ready @ 20°C	-	6-12hrs
Mix Ratio (by wt)	-	1:1
Mix Ratio (by vol)	-	1:1
Solids Content	-	100%
Shrinkage	-	Negligible

Table 2 – Yield of MM-80

Joint Size (mm)		Yield	
Width	Depth	m/5lt	Lt/m
3.0	40	42	0.12
3.0	50	33	0.15
3.0	60	28	0.18
3.0	70	24	0.21
3.0	80	21	0.24
3.0	90	19	0.27
5.0	40	25	0.20
5.0	50	20	0.25
5.0	60	17	0.30
5.0	70	14	0.35
5.0	80	13	0.40
5.0	90	11	0.45
8.0	40	16	0.32
8.0	50	13	0.40
8.0	60	10	0.48
8.0	70	9	0.56
8.0	80	8	0.64
8.0	90	7	0.72
15.0	20	17	0.30
15.0	40	8	0.60
20.0	20	12	0.40
20.0	40	6	0.80
30.0	20	8	0.60
30.0	40	4	1.20

APPLICABLE SPECIFICATION

Standardised specifications for semi-rigid industrial floor joint fillers have not been established. MM-80 meets the basic criteria set forth in the following technical publications:
"Guide for Concrete Floor and Slab Construction", ACI Report 302 R-89.

"Concrete Floors on Ground", Ralph E Spears, Portland Cement Association.

WHERE TO SPECIFY & FILE

MM-80 is exclusively for use in concrete floors and cast in place concrete. It is not a sealant.

INSTALLATION

Storage

Keep MM-80 in a cool shaded area. Protect from freezing.

When to Install

Because concrete floors shrink for a year or more, joints will continue to open long after the filler installation. Metzger/McGuire recommend that filling be deferred until the slab has cured at least 60-90 days. Delaying longer, if possible, is preferable. Installing when the slab has had less than 30 days cure may result in the fillers' adhesion being comprised by slab moisture content.

Joint Preparation

Joints must be free of saw-cut laitance, dirt and debris prior to filling. In some cases, proper cleaning can be achieved by carefully raking the joint, then removing foreign matter by vacuuming or blowing with compressed air. A preferable cleaning method is to re-saw the joint with a dry-cut, vacuum equipped saw using a slightly oversized blade. If film-building curing compounds or sealers are present, re-sawing is required. MM-80 normally requires no primer. If unusual circumstances are suspected, contact our office. Do not use compressible backer rod (Ethafoam, etc) under MM-80! To prevent MM-80 from running through shrinkage cracks at the bottom of the joint, apply 3mm layer of silica sand.

Mixing

Use a variable speed drill and a paint mixing paddle to mix MM-80. Stir larger component A before combining with B to ensure even mixing. Combine A and B and mix at low speed per can instructions. Do not dilute or alter MM-80. Mix entire kit.

Dispensing

MM-80 has a mixed viscosity similar to medium weight motor oil. Installation can be performed by pouring from a container, dispensing from a manual bulk caulking gun or using powder dispensing equipment. The latter two are preferable due to neatness considerations and ensuring full joint depth penetration. Apply MM-80 using a two pass method, with the first pass filling within 10mm of the surface. Wait 30-60 minutes before making the final pass.

Cured filler profile is critical to MM-80's spall preventing function. Ideally the cured filler should be totally flush with the

floor surface. This is best achieved by overfilling, then shaving off the excess MM-80 after it has cured. This process can leave a slight stain on the floor surface.

Clean Up

Before MM-80 cures, clean all tools, equipment and spillage with solvent (Toluol, Xylol or Acetone).

MAINTENANCE

Once MM-80 is in place and cured it is basically maintenance free. If MM-80 is installed in a floor that has not completed its entire shrinkage process, or if it is installed in a joint subject to movement, a separation void will likely occur. The void may occur adhesively or cohesively. This should be construed as a normal function of the MM-80 and not a failure of the filler. Separation should always be expected. To correct the condition, remove dirt and debris, vacuum or blow clear and refill the void with MM-80 semi-rigid epoxy filler.

SHELF LIFE & STORAGE

MM-80 has a guaranteed shelf life of 180 days if the two components remain separate and sealed. Actual shelf life is longer. Turn cans upside down each month.

SAFETY/CAUTION

MM-80 contains epoxy resins and alkali amines, both of which are strong irritants. Keep away from children and avoid contact with skin and eyes. Use only in ventilated areas and avoid inhaling the fumes. Always use appropriate safety equipment including rubber gloves, eye protection, protective skin creams. If contact is made with skin, thoroughly rinse with soap and water. If irritations occur, contact a physician. If contact with eyes occurs, rinse immediately and continuously with clear water. Call a physician. When grinding cured material use proper dust mask and other safety equipment.

IMPORTANT CAUTION

Some people are sensitive to any contact with epoxy. If a person shows any evidence of sensitivity (rash, troubled breathing, etc) he should be permanently removed from all epoxy exposure. The effects of epoxy sensitivity do not abate with time away from exposure but are cumulative. Refer to Material Safety Data Sheet.

WARRANTY

Metzger/McGuire warrant their material to be composed of high quality raw materials formulated under rigid control standards to meet or exceed our printed data. Under this warranty Norton Construction Product's will replace, at no charge, any material proven defective when applied in accordance with the written instructions. This warranty is in lieu of any and all warranties implied or expressed and our liability shall in no event exceed the selling price of the material. All claims must be made within six months of shipment. Absence of written claim within this time shall constitute waive of claims.

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