



**Heavy-Duty, Semi-Rigid Polyurea Joint Filler  
for Class 6-9 Industrial Concrete Floors**

**TECHNICAL DATA EP90-1**

**1. Product Name**  
**Edge-Pro 90**

**2. Manufacturer**  
**METZGER/MCGUIRE**

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

**3. Product Description**

**Composition:**

**Edge-Pro 90** is a two-part, 100% solids, rapid-setting polyurea polymer liquid system. When cured, **Edge-Pro 90** is a rubberlike solid with a hardness of Shore A 90-92.

**Basic Use:**

**Edge-Pro 90** was developed to fill and protect joints in heavy duty industrial concrete floors subjected to frequent and demanding traffic. Its primary function is to protect joint edges from spalling under material handling vehicle traffic. **Edge-Pro 90** is intended for use where final operating temperatures are 20°F (-7°C) to 120°F (49°C).

**Other Uses:**

**Edge-Pro 90** is also ideal for filling/repairing random cracks and repairing joints in heavy duty industrial concrete floors.

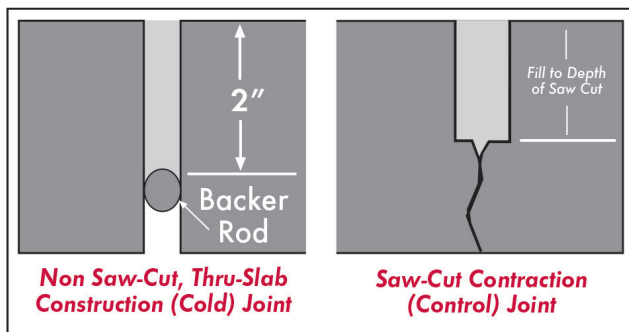
**4. Limitations**

**Edge-Pro 90** is not recommended for use under VCT or other non-breathable flooring systems.

**Edge-Pro 90** is designed for interior use and may not be suitable for outdoor applications due to thermal movement.

**5. Correct Joint Design/Installation**

**Edge-Pro 90** should be installed full joint depth in sawcut contraction/control joints (or 2" minimum in saw-cut joints exceeding 2" in depth) per PCA and ACI guidelines.



In construction (formed) joints that are not saw-cut, **Edge-Pro 90** should be installed at a minimum 2" depth. **DO NOT USE COMPRESSIBLE BACKER ROD IN STANDARD SAW-CUT CONTRACTION/CONTROL JOINTS!** Rod may be used 2" down in construction or saw-cut joints exceeding 2" in depth ONLY.

**6. Advantages**

**Edge-Pro 90's** revolutionary new chemistry provides for heavy duty durability, a flush finished profile and better moisture tolerance than many comparable polyurea joint fillers.



**Low Emitting Sealant/Filler Complies with:**

**LEED v4.1**

- BD&C, ID&C
- The WELL Building Standard
- ANSI/GBI 01, Green Building Assessment Protocol
- Green Guide for Healthcare V2.2

**6. Advantages**

- **Edge-Pro 90 Finishes Flush with the Floor Surface**  
**Edge-Pro 90's** chemistry permits for a wider shave window in which the installer can razor off overfill and achieve a consistently flush profile with floor surface.
- **Edge-Pro 90 is Less Reactive to Moisture**  
**Edge-Pro 90** is less reactive to moisture than comparable polyurea fillers and its special adhesion enhancers permit better adhesion to moist substrates with minimal compromise as compared to dry substrates.
- **Edge-Pro 90 is Colorfast**  
**Edge-Pro 90** maintains a consistent color profile and resists fading, yellowing or other discoloration under normal conditions.
- **Edge-Pro 90 Provides Unequaled Durability**  
**Edge-Pro 90** is the first heavy duty polyurea to provide comparable properties and durability to our Industry Standard **MM-80** and **MM-80P** Heavy Duty Epoxy Joint Fillers. Additional benefits include rapid access time to floor areas, reduced material loss through joint shrinkage crack, and no heating of the material is required during the overfill removal operation.

**7. Color, Packaging and Accessories**

Standard color is Dovetail Gray. Additional colors options are available through special arrangement. Contact Metzger/McGuire for additional details. Available in 10 gallon (US) kits (2-5 gallon US pails) and 600 ML (300:300) dual cartridge kits.

**8. Applicable Specifications**

There are no government or ASTM standards for semi-rigid floor joint fillers. **Edge-Pro 90** meets or exceeds the floor joint filler guidelines set forth by the American Concrete Institute's technical committee guides 301-16, 302.1R-15, 310R-13, 360R-10 and the Portland Cement Association's (PCA) Concrete Floors on Ground (2008).

**9. USDA/FDA/CFIA/LEED v4.1 Approval**

**Edge-Pro 90** is acceptable for use in USDA, FDA, and CFIA regulated facilities. **Edge-Pro 90** contains no VOC's and is fully compliant with USGBC® LEED v4.1 green building standards.

**10. TECHNICAL PROPERTIES**

TEST	METHOD	RESULTS
HARDNESS, SHORE A @ 70°F	D-2240	90-92
TENSILE STRENGTH	D-638	920 psi
TENSILE ELONGATION	D-638	238%
ADHESION TO CONCRETE	D-4541	300-350 psi
VISCOSITY PART A POLYOL	-	1535 cP
VISCOSITY PART B ISO	-	2500 cP
TACK FREE @ 70°F	-	10-15 minutes
GEL TIME @70°F	-	45-50 seconds
TRAFFIC READY @70°F	-	45 minutes
MIX RATIO (BY VOL.)	-	1:1

REVISED 7/20



**10. Technical Assistance**

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

**11. Where to Specify and File**

**Edge-Pro 90** 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**.

**12. Quality Installation Programs**

Metzger/McGuire offers quality installation assurance programs for qualified projects, including our Gold Seal Program. Contact Metzger/McGuire for more information.

**13. Installation**

The following instructions are **ABBREVIATED**. Complete instructions are provided with each shipment. **Edge-Pro 90** must be dispensed with dual-feed power dispensing equipment or with pre-filled, dual-dispense cartridge kits. Manual dispensing is impractical due to short working life (45-50 second gel time).

**When to Install**

The installation of **Edge-Pro 90** should be deferred as long as possible after slab placement, and should not be installed prior to 28 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 stabilized at final operating temperature prior to installation. Refrigerated/frozen goods areas stabilized and held for an additional 7-14 days, or longer if possible. Refer to **Technical Bulletins T5 and T6** 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 or vacuuming joint is not an acceptable cleaning method. Preferred methods of joint cleaning include using a dustless concrete saw with diamond abrasive blade (ensure blade is slightly wider than joint or clean both sides). No primer is needed. If unusual conditions are present, contact Metzger/McGuire.

Choking off the base of the joint is not required due to **Edge-Pro 90's** rapid set. Do not use compressible backer rod (Ethafom, etc) in sawcut joints less than 2" deep.

**Prior to Dispensing**

Thoroughly read SDS and complete installation instructions prior to opening containers or attempting to dispense. Power dispensing systems should be set to a 1:1 ratio by volume. If installing in cooler temperatures, material should be maintained at a minimum temperature of 70°F (23°C) for best results. In warmer temperatures, cooling of product may be necessary.

We recommend the use of a 1/2" diameter (ID) static mixer with 30 or 32 elements for material dispensing and proper mix. Performing periodic ratio checks on power dispense units to ensure proper cure is critical.

Part A polyol should be pre-mixed, using Jiffy Mixer or similar for 1.5 to 2 minutes. Pump tanks, lines and dispensing manifold should be clean and free of any residual materials remaining from previous filler installations.

**Dispensing**

Joints can be filled in one or two passes, depending upon joint depth and dispensing tip used. Preferred method is to fill from bottom to top, taking care not to entrap air bubbles.

Slightly overfill the joint, leaving a crowned profile, and allow to cure. If using two pass method, second pass should be done while 1st pass is still tacky.

**Finishing**

The crown may be easily razored off as early as 15 minutes after placement, depending upon temperature. We recommend testing various shave times to find the optimal shave, which results in a filler profile that is flush with the floor's surface

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**Finishing (continued)**

and free of any film from material overfill. If shave time is substantially delayed or if temperatures are low, **Edge-Pro 90** shaving process may be more labored.

Should filler cure below the floor surface (due to settlement into the void at base of joint, etc.), remove top 1/2" of filler and re-apply **Edge-Pro 90**.

**Cleanup**

Spills of unmixed components can be cleaned up with solvent (MEK, denatured alcohol, etc) or scraped/shaved off floor and tools if cured.

**14. Maintenance**

Once cured, **Edge-Pro 90** is basically maintenance free if joint dimensions remain static. If joints should widen after installation (due to concrete drying shrinkage), separation voids may occur within the material or between the material and the joint sidewall. Voids exceeding 1/32" should be considered for restoration to ensure joint edge protection. Voids may be filled with additional **Edge-Pro 90**, either through gravity feeding or removal and replacement of top 1/2" min. of installed filler. Refer to **Technical Bulletin T11 (Joint Filler Separation; Causes & Corrections)** for additional information.

**Edge-Pro 90** can also experience protrusion above the floor surface if put into substantial compression. Joint dimension narrowing (resulting from concrete slab re-hydration/expansion) is a typical cause of this behavior. Please contact Metzger/McGuire if unusual circumstances are present, either prior to or after installation. Refer to **Technical Bulletin T14 (Joint Filler Protrusion in Exposed Concrete Floors)** for additional information.

**15. Use in Ground/Polished Concrete Floors**

When sequencing product installation as part of a concrete grinding/polishing process, installation can be done prior to grinding/honing if the first tool used is to be 40 grit or higher. Installation can also be deferred until prior to the last metal or transitional tooling step. The earliest the installed filler should be subjected to honing is 45 minutes if using a wet process, 60 minutes if using a dry process (at 70°F). See Technical Bulletin T21 for additional information on sequencing.

**Note:** Some higher grit polishing operations can generate sufficient heat to melt or smear joint fillers, depending upon equipment and job conditions. If melting or smearing is detected, stop operations and test potential methods of reducing slab surface heat, including misting joints with water, altering the speed of polishing operations, re-shaving the joint filler or changing tooling. Please contact our technical service department for more information or assistance.

**16. Approximate Coverage Chart**

Joint Size (US)	LF/Gal.	Joint Size (Metric)	M/Gal.
1/8" x 1-1/2"	100	3 x 38	30
1/8" x 1-3/4"	85	3 x 44	26
1/8" x 2"	75	3 x 50	23
3/16" x 3/4"	135	5 x 19	41
3/16" x 1"	100	5 x 25	30
3/16" x 1-1/4"	85	5 x 31	26
3/16" x 1-1/2"	70	5 x 38	21
3/16" x 1-3/4"	60	5 x 44	18
3/16" x 2"	50	5 x 50	15
1/4" x 1"	80	6 x 25	24
1/4" x 1-1/4"	60	6 x 31	18
1/4" x 1-1/2"	50	6 x 44	14
1/4" x 1-3/4"	45	6 x 50	12
1/4" x 2"	40	9 x 25	15

**17. Safety**

This product is for industrial use only. Use only in well-ventilated areas. Practice all normal jobsite safety precautions (clear work area, etc). Refer to SDS and installation instructions for more information.

**18. Food Related Facilities**

**Edge-Pro 90** is acceptable for use in facilities regulated by USDA/FDA/CFIA. Contact us to discuss project details if contamination is a concern.

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