



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

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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 -7°C to 49°C.

Other Uses:

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

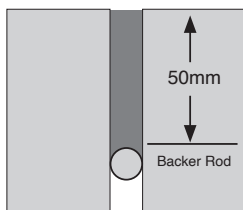
4. LIMITATIONS

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

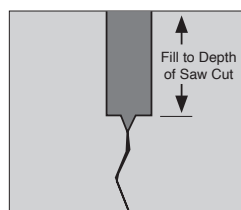
Edge-Pro 90 is designed for interior use and may not be suitable for outdoor applications due to thermal movement.

5. CORRECT JOINT DESIGN/INSTALLATION

Edge-Pro 90 should be installed full joint depth in sawcut contraction/control joints (or 50mm minimum in saw-cut joints exceeding 50mm in depth) per PCA and ACI guidelines.



NON SAW-CUT, THRU-SLAB CONSTRUCTION (COLD) JOINT



SAW-CUT CONTRACTION (CONTROL) JOINT

In construction (formed) joints that are not saw-cut, **Edge-Pro 90** should be installed at a minimum 50mm depth. **DO NOT USE COMPRESSIBLE BACKER ROD IN STANDARD SAW-CUT CONTRACTION/CONTROL JOINTS!** Rod may be used 50mm" down in construction or saw-cut joints exceeding 50mm 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.

- **Edge-Pro 90 Finishes Flusher 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**



Low Emitting Adhesive/Sealant Complies with:

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

LEED v4

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 Colourfast**
Edge-Pro 90 maintains a consistent colour 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. COLOUR, PACKAGING AND ACCESSORIES

Standard colour is Dovetail Gray. Additional colours options are available through special arrangement. Contact Metzger/McGuire for additional details. Available in 38L (7.6L-19L) 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 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 green building standards.

10. TECHNICAL PROPERTIES

TEST	METHOD	RESULTS
HARDNESS, SHORE "A" @ 21°C	D-2240	90-92
TENSILE STRENGTH	D-638	920 PSI
TENSILE ELONGATION (@ 21°C)	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 @ 21°C	-	10-15 minutes
GEL TIME @ 21°C	-	45-50 seconds
TRAFFIC READY 21°C	-	45 minutes
MIX RATIO (by vol)	-	1:1



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11. 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.

12. 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**.

13. QUALITY INSTALLATION PROGRAMS

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

14. 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 stabilised 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 (Ethafoam, etc) in sawcut joints less than 50mm 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 23°C for best results. In warmer temperatures, cooling of product may be necessary.

We recommend the use of a 12mm 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 razed 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 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 laboured.

Should filler cure below the floor surface (due to settlement into the void at base of joint, etc.), remove top 12mm 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.

15. 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 .75mm 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 12mm 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.

16. 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 21°C). See Technical Bulletin T21 for additional information on sequencing.

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



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18. 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.

19. 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.

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 labour, 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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