



TECHNICAL DATA RS-1

Heavy-Duty Semi-Rigid Polyurea Joint Filler for Class 5-9 Industrial Concrete Floors



1. PRODUCT NAME

Spall-Pro RS 88

2. MANUFACTURER

Metzger/McGuire

PO Box 2217 Concord, NH 03302 (USA)

Phone: 603-224-6122 Fax: 603-224-6020

Web: www.metzgermcguire.com

3. PRODUCT DESCRIPTION

Composition

Spal-Pro RS 88 is a rapid setting polyurea polymer liquid of 100% solids content. When cured, Spal-Pro RS 88 is a grey, rubberlike solid with a Shore Hardness of A86-90.

Basic Use

Spal-Pro RS 88 was developed to fill and protect joints in trafficked industrial and retail concrete floors. Its primary function is to support such traffic and protect joint edges.

Spal-Pro RS 88 is intended for use where final temperatures are from 0°C to +49°C.

Other Uses

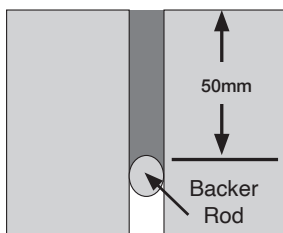
Spal-Pro RS 88 is also ideal for filling random cracks in industrial floors.

4. LIMITATIONS

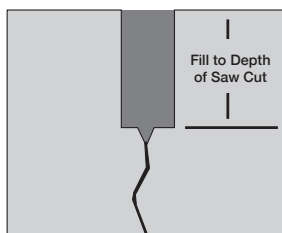
- Spal-Pro RS 88 is not recommended for use under VCT or other non-breathing flooring systems.
- Spal-Pro RS 88 is designed for interior use and may not be suitable for outdoor applications due to thermal movement.
- Spal-Pro RS 88 may exhibit bubbling and/or compromised adhesion if concrete or ambient moisture levels are excessive.

5. CORRECT JOINT DESIGN/INSTALLATION

Spal-Pro RS 88 should be installed to full joint depth in saw-cut 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, Spal-Pro RS 88 should be installed at a minimum 50mm depth. **DO NOT USE COMPRESSIVE BACKER ROD IN STANDARD SAW-CUT CONTRACTION/CONTROL JOINTS!** Rod may be used 50mm down in construction joints or saw-cut joints exceeding 50mm in depth only.



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

6. ADVANTAGES

- **Spal-Pro RS 88 is Rated “Heavy-Duty”**
Unlike softer polyureas, Spal-Pro RS 88’s higher shore hardness provides greater edge protection and support.
- **Spal-Pro RS 88 is “Rapid-Setting”**
At 21°C it can be opened to full traffic in as little as 60 minutes and light traffic in 30 minutes.
- **Spal-Pro RS 88 is Colourfast**
Spal-Pro RS 88 maintains a consistent colour profile and resists fading and other discoloration under normal conditions.
- **Spal-Pro RS 88 is Ideal for Use in Stained / Polished Floors**
Spal-Pro RS 88 can be used to fill joints and cracks in polished concrete floors, and will not smudge or smear during grinding/polishing.

7. COLOUR, PACKAGING AND ACCESSORIES

Standard colour is Standard Grey. Over 68 standard colours are also available. The product is also available in a neutral version which can be field tinted with a Colour Pack (included with kit if selected at time of purchase). Product is available in 38L kits (7.6-19L) and 600 ml (300:300 dual-cartridge convenience kits). An optional FAST PACK is available to accelerate initial gel/cure time.

8. APPLICABLE SPECIFICATIONS

There are no government or ASTM standards for industrial floor joint fillers. Spal-Pro RS 88 meets or exceeds the criteria outlined in the following industry standards:

American Concrete Institute (ACI) Guides/ Specifications: (301-16, 302.1-R15, 310-R13, 360R-10, Portland Cement Association (PCA): Concrete Floors on Ground, Third Edition 2008.

9. USDA/FDA/CFIA/LEED® APPROVAL

Spal-Pro RS 88 is acceptable for use in USDA, FDA, and CFIA regulated facilities. Spal-Pro RS 88 contains no VOCs and is fully compliant with USGBC® LEED green building standards.



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10. TECHNICAL PROPERTIES

TEST	TEST METHOD	RESULTS
SHORE HARDNESS "A" @ 21°C	D-2240	A86-90
TENSILE STRENGTH	D-638	970 PSI
TENSILE ELONGATION (@ 21°C)	D-638	180%
ADHESION TO CONCRETE	D-4541	350-400 PSI
TACK FREE @ 21°C	-	5 mins
TRAFFIC READY @ 21°C	-	1 hour
MIX RATIO (by vol.)	-	1:1
SOLIDS CONTENT	-	100%
SHRINKAGE	-	Negligible

* This property provided only for comparison with other polyureas. Elongation is not an indication of expansion capability.

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

Spal-Pro RS 88 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 PROGRAMMES

Metzger/McGuire offers quality installation assurance programs for qualified projects. Contact Metzger/McGuire for specific information.

14. INSTALLATION

The following instructions are ABBREVIATED. Complete instructions are provided with each shipment.

When to Install - The installation of **Spal-Pro RS 88** should be deferred as long as possible after slab placement, and should not be installed prior to 30 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 stabilised 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 (Filler Installation Timing) and T6 (Filler Timing for Refrigerated Buildings) 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 is not an acceptable cleaning method. Preferred methods of joint cleaning include using a dustless concrete saw with diamond blade (ensure blade is slightly wider than joint or clean both sides) or sandblasting. No primer is needed. If unusual conditions are present, contact Metzger/McGuire.

Choking off the base of the joint is normally not required due to **Spal-Pro RS 88's** rapid set. Do not use compressible

backer rod (Ethfoam, etc) in saw-cut joints less than 50mm deep.

Prior to Dispensing - Thoroughly read SDS and complete installation instructions prior to opening containers or attempting to dispense.

Spal-Pro RS 88 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 (1-2 minute gel time). 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 24°C for best results. We recommend the use of a 12mm diameter (ID) static mixer with 30 or 32 elements for material dispensing and proper mix. We strongly recommend performing periodic ratio checks on power dispense units to ensure proper cure.

Material provided in Part A Polyol pails should be thoroughly mixed to redistribute any settlement that may have occurred during shipping or storage. Cartridges should be shaken aggressively to accomplish same.

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 using a dispensing tip that fits into the joint. Take care not to entrap air bubbles. Slightly overfill the joint, leaving a crowned profile, and allow to cure.

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 and free of any film from material overfill. If shave time is substantially delayed or if temperatures are low, **RS 88** 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 50mm of filler and re-apply **RS 88**. Grinding/polishing operations should be deferred for one hour or more after placement. If using FAST PACK addition, 25-30 minutes or more.

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. USE IN GROUND/POLISHED CONCRETE

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 30 minutes if using a wet process, 3-4 hours if using a dry process (at 21°C). 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. MAINTENANCE

Once cured, **Spal-Pro RS 88** is basically maintenance free. If joints should open after installation, fill voids with additional **Spal-Pro RS 88**. Refer to Technical Bulletin T11 (Joint Filler



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Separation; Causes & Corrections) for additional information.

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

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). Refer to SDS and installation instructions for more information.

19. FOOD RELATED FACILITIES

Spal-Pro RS 88 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 Spal-Pro RS 88 shall be free from defects in material and workmanship for 365 days 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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