*The "Heavy Duty" Polyurea Joint Filler for Class 5 - 9 Industrial Floors*

# SPAL-PRO RS 88

**RS-1**

**TECH DATA**

## 1. Product Name

**SPAL-PRO RS 88**

## 2. Manufacturer

METZGER/McGUIRE
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## 3. Product Description

*Composition*

**Spal-Pro *RS 88*** is a rapid setting, two-component polyurea polymer liquid of 100% solids content. When cured, **Spal-Pro *RS 88*** is a gray, rubberlike solid with a hardness of Shore A88-92.

*Basic Use*

**Spal-Pro *RS 88*** was developed to fill and protect joints in industrial concrete floors that are subject to hard wheels and heavy loads. Its primary function is to support such traffic and support joint edges. **Spal-Pro *RS 88*** is designed for use in areas where final temperatures are from 40˚F (4˚C) to +120˚F (49˚C).

*Other Uses*

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

## 4. Limitations

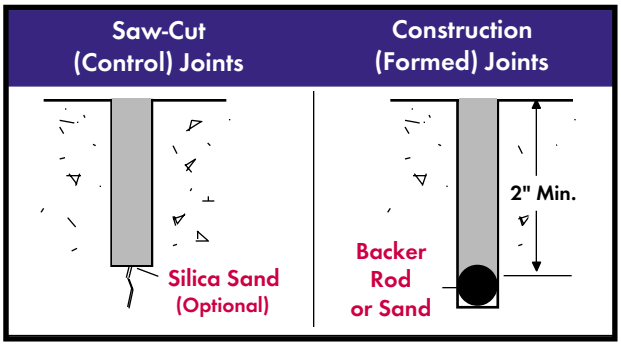
**Spal-Pro *RS 88*** has a relatively high, load-supportive Shore A hardness. This hardness reduces ***RS 88*'s** lateral expansion capability to approximately 10-15% (depending on joint preparation). In cooler areas, **Spal-Pro *RS 88*** should be installed after the area has been stabilized at ultimate operating temperature.

**Spal-Pro *RS 88*** is not recommended for the repair of wide (1"+) repairs. Refer to data on **Spal-Pro 2000** or **MM-80.**

**Spal-Pro *RS 88*** may discolor (to a brownish gray color) if subjected to UV rays from sunlight or certain lighting systems.

## 5. Correct Joint Design/Installation

**Spal-Pro *RS 88*** should be installed full joint depth in saw-cut control joints (or 2" min. in joints where depth exceeds 2") per PCA and ACI guidelines. In construction (formed) joints that are not saw-cut, ***RS 88*** should be installed 2" deep. If shrinkage crack is excessive and needs to be "choked off", it may be sealed with clean, dry silica sand as shown below (contractor's option).




## TECHNICAL INFORMATION

| | TEST METHOD | RESULTS |
|---|---|---|
| HARDNESS, SHORE "A" @ 70˚F | D-2240 | A88-92 |
| TENSILE STRENGTH | D-638 | 930 PSI |
| TENSILE ELONGATION*(@ 70˚F) | D-638 | 170% |
| ADHESION TO CONCRETE | D-4541 | 350-400 PSI |
| TACK FREE @ 70˚F | - | 5 Minutes |
| LIGHT TRAFFIC READY @ 70˚ F | - | 30 Minutes |
| FULL TRAFFIC READY @ 70˚ F | - | 60 Minutes |
| MIX RATIO (by vol.) | - | 1:1 |
| SOLIDS CONTENT | - | 100% |
| SHRINKAGE | - | Negligible |

** This property provided only for comparison with other polyureas. Elongation is never an indication of expansion capability.*

## 5. Correct Joint Design/Installation (*Continued*)

***DO NOT USE COMPRESSIBLE BACKER ROD IN SAW CUT CONTROL JOINTS.***

**Compressible rod may be used 2" down in construction joints.**

## 6. Color and Packaging

Standard color is medium (charcoal) gray. Available in 10 gal. (US) kits (2-5 gal. US pails), 100 gal. (US) kits (2-50 gal. US drums), and 750:750 ML dual-cartridge convenience kits.

## 7. Applicable Specifications

There are no government or ASTM standards for floor joint fillers. **Spal-Pro *RS 88*** meets and/or exceeds the floor joint filler guidelines set forth by ACI 302 (***Guide for Concrete Floor and Slab Construction, ACI report 302.1 R-96***), ACI 360 and PCA (***Concrete Floors on Ground***, Ralph E. Spears, PCA).

## 8. Advantages

- **Spal-Pro *RS 88* is Rated "Heavy Duty"**
  Unlike softer polyureas, ***RS 88*'s** higher shore hardness provides greater edge protection and support.
- **Spal-Pro *RS 88* is "Rapid-Setting"**
  At 70˚F (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 a "Superior Formulation"**
  ***RS 88*** provides consistent cure and quality; no soft, hard or uncured spots as with many polyureas.

  Because of its thinner viscosity, ***RS 88*** flows quickly into joints and more easily penetrates the concrete substrate, allowing for greater adhesion to joint walls prior to cure and enhancing the material's lateral movement capability.

  ***RS 88*** is not moisture reactive and will not "crust over" in dual-component dispensing pumps like other polyureas.

0401

## 9. USDA/FDA Approval

**Spal-Pro *RS 88*** is acceptable for use in floors subject to USDA and FDA inspection and regulation. See section 19 for additional information.

## 10. Technical Assistance

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

## 11. Where to Specify and File

**Spal-Pro *RS 88*** is exclusively for use in concrete floors and thus should always be referenced in 03251 (expansion/contraction joints) & 03300 (cast-in-place concrete). It is not a sealant and should not be specified as part of 07900, other than for cross reference.

## 12. Quality Installation Programs

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

## 13. Availability

**Spal-Pro *RS 88*** is available through quality construction supply distributors in most major cities (listing available at www.metzgermcguire.com) or through our New Hampshire headquarters.

## 14. Installation

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

### *When to Install*

The installation of **Spal-Pro *RS 88*** installation should be deferred as long as possible (ACI recommends slab cure of 60-90 days plus). In cooler temperatures, area should be stabilized at final operating temperature for 5-7 days prior to installing **Spal-Pro *RS 88***.

### *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, but applicator may choke-off the shrinkage crack if it is excessively wide (as shown in joint design, section 5). ***Do not use compressible backer rod (Ethafoam, etc) in saw cut joints.***

### *Prior to Dispensing*

Caution: Thoroughly read MSDS 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 convenience kits provided by Metzger/McGuire. Manual dispensing is impractical due to short working life (2-3 minute gel time). Power dispensing systems should be set to a 1:1 ratio by volume. In cooler applications, lines and material tanks should be heated and insulated. Material should be maintained at a minimum temperature of 75˚ F (24˚C) for best results. We recommend the use of a 1/2" diameter (ID) 32 element static mixer. For more information on dual component pumps, contact M/M.

Material provided in drums or pails should be thoroughly mixed with drill and paddle to redistribute any settlement or pigment separation that may have occurred during shipping or storage. Cartridges should be shaken aggressively.

### *Dispensing*

Fill joint from bottom to top, preferably using a dispensing tip that fits into the joint. Take care not to entrap air bubbles. Joint can be filled using either a one or two pass technique. The ***RS 88*** should overfill the joint, leaving a crowned profile, and allowed to cure. The crown may be easily razored off in 1 to 2 hours, leaving a profile that is flush with the floor's surface. If ***RS 88*** razoring is delayed and material becomes difficult to shave smoothly, apply a small amount of heat as you razor material off.

Should filler cure below the floor surface (concave, due to settlement into the void at base of joint, etc.), wipe off surface of filler with solvent and apply additional filler. Adhesion between beads is enhanced by roughening the surface of the first bead.

The overfill not removed during razoring may leave a slight stain on concrete. The degree of staining will depend on the surface density (porosity) of the slab. The stain will gradually fade as a result of subsequent traffic and floor cleaning procedures.

### *Clean-Up*

Spills of unmixed components can be cleaned up with solvent (Toluol, Xylol, MEK , Denatured Alcohol, etc). Cured product can be scraped or shaved off floor and tools.

## 15. 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 Joint Filler Tech Series Sheet T-5 for additional information on joint filler separation causes and corrections.

## 16. Coverage

| Joint Size (US) | LF/Gal. | Joint Size (Metric) | M/Gal |
|---|---|---|---|
| 1/8" x 1" | 150 | 3 x 25 | 46 |
| 1/8" x 1 1/4" | 125 | 3 x 31 | 38 |
| 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 |
| 1/2" x 1" | 40 | 13 x 25 | 12 |

## 17. Shelflife and Storage

**Spal-Pro *RS 88*** has a guaranteed shelf life of 180 days if containers remain unopened. Store in dry, cool areas away from excessive heat, freeze/thaw and sunlight. See complete installation instructions for info.

## 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 MSDS and installation instructions for additional information prior to using material.

## 19. Food Related Facilities

USDA prohibits the use of any chemicals in areas where existing food or food packaging can be contaminated. See "Food Warning" in installation instructions.