Semi-Rigid Polyurea Joint Sealant



# Semi-Rigid Polyurea Joint Sealant for Retail/Commercial Concrete Floors

# TECHNICAL DATA

RS6-1

# 1. Product Name

# Spal-Pro RS 65

# 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 65** is a rapid-set, two-component polyurea polymer liquid of 100% solids content. When cured, it is a semi-rigid sealant with a hardness of Shore A64-69.

# Basic Use

**Spal-Pro RS 65** was developed to seal floor joints in commercial/retail exposed concrete floors that are subject to pedestrian/cart traffic and very limited material handling traffic.

# 4. Limitations

**Spal-Pro RS 65** is NOT designed for Class 5-9 industrial floors subject to heavy loads and moderate to frequent material handling vehicles and traffic.

**Spal-Pro RS 65** may exhibit bubbling and/or compromised adhesion if concrete or ambient moisture levels are high.

**Spal-Pro R5 65** is designed for use in areas where final temperatures are from  $32^{\circ}F$  ( $0^{\circ}C$ ) to  $+120^{\circ}F$  ( $49^{\circ}C$ ).

# 5. Advantages

## • Spal-Pro RS 65 is "Rapid-Setting"

At 70°F (21°C) **Spal-Pro RS 65** can be opened to pedestrian traffic in as little as (30) minutes and full traffic in (60) minutes.

# • Spal-Pro RS 65 Provides Anti-Microbial Protection

**Spal-Pro RS 65's** anti-microbial additives inhibit the growth of microbes such as viruses, bacteria or fungi.

#### Spal-Pro RS 65 is Colorfast

**Spal-Pro RS 65** maintains a consistent color profile and resists fading and other discoloration under normal conditions.

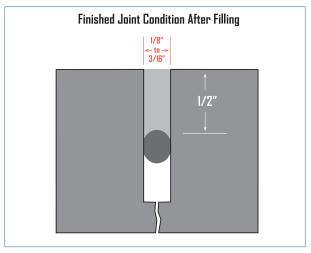
# Spal-Pro RS 65 Can Be Used with Grinding/Polishing Systems

Unlike most sealants, **Spal-Pro RS 65** should not smear under most concrete grinding/polishing conditions, and its rapid set properties allow for grinding/polishing operations to commence as early as 60 minutes after filler placement (at 70°F).

Spal-Pro RS 65 Reduces Incidence of Filler Separation
 Spal-Pro RS 65's lower Shore A hardness provides greater lateral movement capability to reduce the occurrence of filler separation voids normally associated with semi-rigid joint fillers when concrete shrinkage/joint opening occurs.

# 6. Correct Joint Design/Installation

**Spal-Pro RS 65** should be installed at a depth of 1/2" deep over closed-cell compressible backer rod in sawn contraction/control or construction joints.



# 7. Color and Packaging

Standard Gray and Brownstone are standard colors; many popular and custom colors are also available. **Spal-Pro RS 65** is available in 10 gallon kits (1-5 gallon pail Part A, 1-5 gallon pail Part B) and 600 ml (300:300) dual-cartridge convenience kits.

# 8. Applicable Specifications

There are no government or ASTM standards for semi-rigid retail/commercial floor joint sealants.

# 9. USDA/FDA/LEED®Approval

**Spal-Pro RS 65** is acceptable for use in USDA and FDA regulated facilities. **Spal-Pro RS 65** contains no VOC's and is compliant with USGBC LEED® green building standards.

#### 10. TECHNICAL PROPERTIES

	TEST METHOD	<b>RESULTS</b>
HARDNESS, SHORE "A" @ 70°F	D-2240	A64-69
INITIAL GEL TIME	-	50 SEC.
FULL GEL TIME	-	2 MINS.
PEDESTRIAN TRAFFIC	-	30 MINS.
INITIAL SHAVE TIME	-	1 HOUR
INITIAL GRINDING/POLISHING	-	6 HOURS
TENSILE ELONGATION*(@ 70°F)	D-412	162%
TENSILE STRENGTH (@ 70°F)	D-412	393 psi
MIX RATIO (by vol.)	-	1:1
SOLIDS CONTENT	-	100%
SHRINKAGE	-	Negligible

<sup>\*</sup> This property provided only for comparison with other polyureas. Elongation is not an indication of expansion capability.

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#### 11. 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.

# 12. Where to Specify and File

**Spal-Pro RS 65** is exclusively for use in concrete floors and thus should always be referenced in 03312 (cast-in-place concrete slabs) and in 07900 (joint sealers).

#### 13. Quality Installation Programs

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

#### 14. Prevention of Filler Overfill Staining

If potential residual staining from **Spal-Pro RS 65** overfill is an aesthetic concern, a joint masking agent should be used along joint edges to prevent potential staining/film. Options include **Metzger/McGuire's SPF-P** (Stain Prevention Film for Polyurea Fillers), taping, etc. We recommend testing various options prior to filling commencement to determine best results. Stain prevention method chosen must be installed prior to joint preparation/filler installation.

#### 15. Installation

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

When to Install - The installation of **Spal-Pro R5** 65 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 stabilized at final operating temperature prior to installation, refrigerated areas stabilized and held for an additional 7-14 days or longer if possible. Refer to Technical Bulletins T5 (Filler Installation Timing) & T6 (Filler Timing For Refrigerated Buildings) and T11 (Joint Filler Separation; Causes & Corrections) 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. Recommended cleaning method is to chase joints using a dustless concrete saw equipped with a diamond or abrasive blade. Joints should be revacuumed after chasing. No primer is needed. If unusual conditions are present, contact Metzger/McGuire.

Base of saw cut should be choked off using a closed-cell compressible backer rod at a depth of 1/2" to avoid three point filler contact in the joint. See Section 6 for an illustration of the finished joint condition.

Prior to Dispensing - Thoroughly read SDS and complete installation instructions prior to opening containers or attempting to dispense. *Spal-Pro R5 65* 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 1A:1B ratio by volume. If installing in cooler temperatures, 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) 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.

Polyol (Part A) material provided in pails should be thoroughly mixed with a Jiffy mixer or helix paint mixer 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 should be filled in one pass. 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

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. The crown may be easily razored off as early as 1 hour after placement, depending upon temperature. Best shave time for flush profile is typically 3-8 hours after placement, but installer should assess project conditions to determine optimal shave time.

#### Clean-Up

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

#### 17. 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 60 minutes using either a wet or 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. Coverage Rates

Joint Size (US)	LF/Gal.	Joint Size (Metric)	M/Gal
3/16" x 1/2"	200	4.75 x 12.7mm	61
1/4" x 1/2"	160	6.35 x 12.7mm	49
3/8" x 1/2"	100	9.52 x 12.7mm	30

# 17. Maintenance

Once cured, **Spal-Pro RS 65** is basically maintenance free. If joints should open after installation, fill voids with additional **Spal-Pro RS 65**. Refer to Technical Bulletin T11 (Joint Filler Separation; Causes & Corrections) for additional information.

## 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 65** is acceptable for use in facilities regulated by USDA/FDA. Contact us to discuss project details if contamination is a concern.

# 20. Material Warranty/Shelf Life

Metzger/McGuire Co. solely and expressly warrants that its Spal-Pro RS 65 shall be free from defects in material and workmanship for 365 days from the date of purchase. Unless authorized 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 labor, 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 authorize 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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