INSTALLATION INSTRUCTIONS

Heavy-Duty, Rapid-Set Polyurea Joint Filler

SPAL-PRO RS 88
Semi-Rigid Polyurea Joint Filler

METZGER/McGUIRE

2017 LTD LESA SYSTEMS
ENGINEERED CONCRETE FLOOR SYSTEMS

IMPORTANT INFORMATION

- Designed for installation at full saw-cut depth in control joints or 25mm minimum in joints exceeding 25mm in depth.
- Dual-component pump or dual-cartridge units required to dispense.
- Pre-mix Part A Polyol prior to pouring into pump tank.
- Do not use compressible backer rod in saw cut joints!

WHAT IS RS 88?

Spal-Pro RS 88 is a rapid-setting, two-component polyurea polymer liquid of 100% solids content 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 0˚C to 49˚C.

MATERIAL STORAGE

Store RS 88 in a cool area. Do not allow to freeze. **RS 88** has a minimum shelf life of 12 months (bulk or dual-cartridge units). If material sits for over one month, rotate material monthly to minimise settlement.

CHECKING JOB CONDITIONS

Floors should have a minimum cure of 30 days prior to joint filling. Since all concrete shrinks for months, and shrinkage results in the widening of joints, filling should always be delayed for as long as the schedule allows. If filling in refrigerated areas (coolers), the room should be stabilised at its final operating temperature for 7 days or longer. Joints should be dry, and work area should be well ventilated.

TOOLS AND EQUIPMENT

RS 88 can be dispensed only through power dispensing pumps or dual-cartridge kits. Other equipment needed includes, but is not limited to, proper safety gear, drill and mixing paddle, solvent for clean up, razor scraper, etc.

INSTALLATION IN FOOD RELATED FACILITIES

USDA limits the use of any chemicals in areas where existing food or food packaging can be contaminated.

STAIN PREVENTION

Proper **RS 88** installation requires that the joint be overfilled (crowned). While **RS 88** will not typically leave a stain/film in normal conditions, the potential may exist for a slight shadow or film along the sides of joints on some slabs. We recommend a test placement prior to start of project to check conditions.

JOINT CLEANING

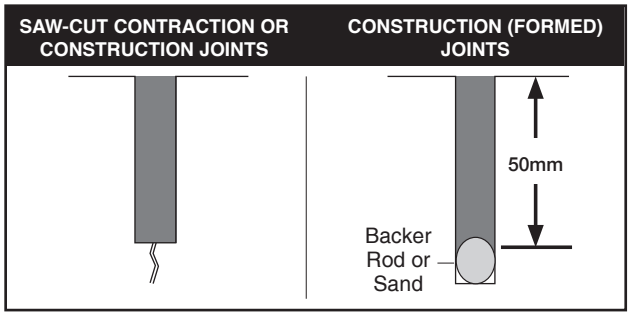
RS 88 must bond to clean, exposed concrete for the full intended filler depth. Joints must be free of saw laitance, dirt, debris, coatings, sealers, etc. The only effective means of proper joint cleaning is the use of a dry saw cut saw (preferably vacuum-equipped) with a diamond blade. The blade depth should extend to the intended filler depth. Run blade against each side wall on separate passes. After cleaning joints with saw, vacuum any remaining dust/debris from joint.

JOINT PREPARATION

Due to RS 88s rapid gel time, it is not necessary to "choke-off" the bottom of control/contraction joints to prevent filler waste. Note: DO NOT USE COMPRESSIBLE BACKER ROD IN SAWCUT JOINTS. **RS 88** is designed to be placed to the full depth of joint in saw-cut contraction/control or construction joints at 25mm minimum if joint depth exceeds 25mm.

For through-slab construction (cold) joints, the installer my use silica sand or backer rod if it is held down at least 25mm from the top.

JOINT DESIGN DETAIL



TEMPERATURE FACTORS

Like most polyureas, RS 88 is affected by temperature. In warm or hot weather, RS 88 will cure faster. In cooler weather, RS 88 will cure slightly slower. For best results in cooler temperatures, keep material temperature at a minimum of 23˚C + by outfitting dispensing pump/material hoppers with heating unit.

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DISPENSING SPAL-PRO RS 88

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.

PRE-MIXING SPAL-PRO RS 88

Read SDS prior to opening containers and follow all safety measures, including working in an obstacle-free, well ventilated area. Always pre-mix Part A component (polyol) with a Jiffy Mixer or helix paint mixer prior to pouring into pump tank to re-disburse any settlement. Mixing of Part B (iso) is not required. Do not thin or dilute **RS 88** with solvent or other substances. Dual-cartridge units should be shaken vigorously to re-disburse pigment. Follow cartridge use instructions enclosed with cartridge units.

INSTALLATION

Pump tanks, lines, and dispensing manifold should be clean and free of any residual materials remaining from previous filler installations.

RS 88 cures chemically through a reaction of parts A and B. During this chemical reaction the released fumes can be potentially harmful. Be cautious during the cure period. Do not inhale or get polyurea on skin or in eyes. See SDS for additional information.

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 into a solid prior to razoring off overfill crown.


Always overfill joints (surface shown with SPF film)

The crown may be easily razored off as early as 15-20 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 labored. Generally optimal shaving operation will be deferred no longer than 6 hours after placement (depending upon slab temperature and conditions).

FINISH PROFILE

To be effective as an edge-protector, RS 88's final profile should be flush with the floor surface. This is achieved by razoring off the overfill crown after the **RS 88** has fully cured into a solid. If **RS 88** is gummy or liquid when shaving, allow additional cure time.

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 additional **RS 88**.

AFTER THE INSTALLATION

Clean all tools with solvent and remove spills on floor with solvent or by scraping. The floor, depending on temperature, can usually be opened to light traffic within 30 minutes and heavy traffic in 60-90 minutes. If the floor is to be acid-etched or coated, allow approximately 1 day. **RS 88** is generally unaffected by light muriatic acid and most coatings systems, but a test coat is always recommended. Once cured, mechanical scrubbing or most cleaners do not affect RS 88. Stains left on the top edges from overfilling are difficult or impossible, to remove. Wire brushing with solvent (MEK or denatured alcohol) is somewhat successful.

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).

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.

FILLER SEPARATION

Since slabs continue to shrink long after the filler installation, **RS 88** may separate adhesively or cohesively. This is not a failure of the **RS 88**.

COLOUR CHANGES

Spal-Pro RS 88 contains colorfast properties designed to minimize color shifting after cure. However, certain lighting systems or exposure to the sun can emit UV rays that may cause **RS 88** to exhibit colour shifting. This colour shift, if it occurs, will not affect **RS 88s** performance. If any degree of colour shifting will prove aesthetically objectionable on a project, we recommend performing a sample installation or placing a cured strip of material in the building prior to commencement of installation to survey the degree to which colour shift may or may not occur, and to confirm whether it is an aesthetics problem for the facility owner or other project authorities.