

The "Heavy Duty"
Polyurea Polymer Filler
for Class 6, 7, 8 & 9
Industrial Floors

SPAL-PRO 2000

INSTALLATION INSTRUCTIONS

1. Product Description

Spal-Pro 2000 is a rapid-setting, two-component polyurea polymer liquid of 100% solids content. When cured, Spal-Pro 2000 is a charcoal gray solid with a hard rubber-like hardness of A95. Spal-Pro 2000 can be installed in temperatures ranging from +120 °F to -20 °F. Spal-Pro 2000's primary use is as a filler for control and construction joints in floor subjected to hard wheeled, heavy traffic. It is also ideal for repairing damaged (spalled) floor joints, filling random cracks and patching floor defects such as gouges, holes, surface delamination, etc.

Due to Spal-Pro 2000's rapid set time (gel in two minutes at 70 °F) it must be installed with a dual-feed power dispensing system or with pre-filled dual cartridges available from manufacturer. Manual dispensing by gun is impractical due to rapid set.

Limitations

- * Spal-Pro 2000 has limited expansion capabilities due to its relatively high hardness. Adhesive or cohesive separation may occur if joints/cracks open significantly. See Sections 3, 12.
- * Spal-Pro 2000 is intended for interior use. Exposure to sunlight or other sources of UV rays can cause product to discolor to a greenish tone.
- * Contact manufacturer if product will be exposed to direct chemical contact once installed.

2. Material Storage

Keep Spal-Pro 2000 in tightly sealed containers in dry, shaded areas where temperatures average 50 °F to 85 °F (10 °C to 30 °C). Protect from sunlight, freeze-thaw and excessive temperatures. Remove thoroughly before use. If storing partially used part B material, place nitrogen blanket (or other desiccant) over material prior to storage.

3. Timing of Installation

New concrete will shrink in dimension for 1-2 years, causing significant opening of floor joints. (See separate tech sheet for details). We strongly urge compliance with ACI (American Concrete Institute recommendations that joint filling be deferred as long as possible to minimize the separations that will occur in filled joints. See technical data for a detailed explanation of the effects of slab shrinkage. Freezers and coolers should be stabilized at final operating temperature. Concrete less than thirty (30) days old may contain excessive moisture that may affect product bond. See section 7 for procedures to be used in extreme temperatures.

4. Equipment and Tools

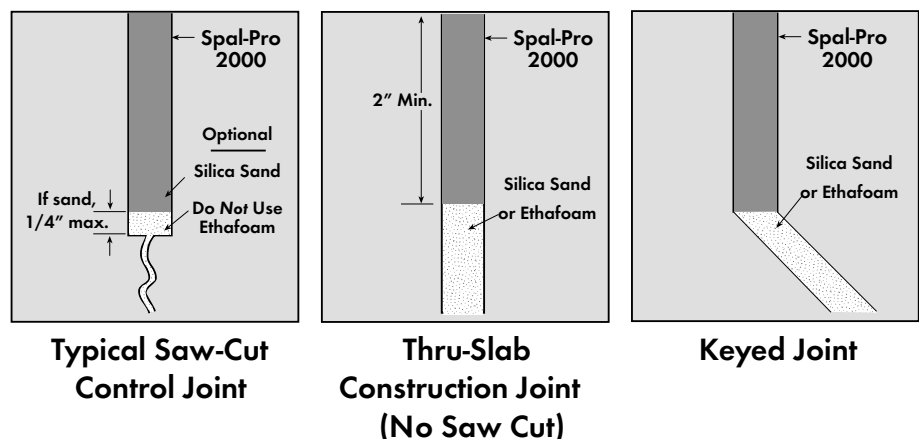
Spal-Pro 2000 must be installed using dual-feed, power dispense pump systems set at 2:1 by volume mix ratio, or with pre-filled, dual cartridges available from manufacturer. Additional equipment/supplies that may be required include conventional hand tools, solvent for clean-up, wiper cloths, etc. Personal safety equipment is always a must with chemicals. See MSDS for complete information.

5. Joint Design Details

Note:

Spal-Pro Rod is available from Metzger/McGuire

Compressible backer rod (Ethafoam, etc.) is **not acceptable** for use in saw-cut joints.



Note on Repairs - We recommend that feather edging be avoided by using a saw, grinder or chisel to define the outer edges of repairs. See separate literature on performing repairs properly.

6. Surface Preparation

All concrete surfaces to which Spal-Pro 2000 will bond must be structurally sound and free of substances that may impair adhesion (saw cut laitance, dirt, debris, coatings/sealers, frost, oil, etc.).

For narrow joints in new floors, we recommend the use of a dustless saw with a blade that will properly expose bare concrete on both joint walls. For adhesion to steel, mechanically abrade steel to insure mechanical bond. Call M/M for additional methods.

7. Installing at Various Temperatures

Spal-Pro 2000's working (gel) time and cure rates will vary at different installation temperatures. Use the following procedures for different temperatures:

Installation Temperature	Procedure
+120 °F to +90 °F (49 °C to 33 °C)	Store in cool area. If gel time is still too fast, cool container down with cool water, etc.
+89 °F to +33 °F (32 °C to 1 °C)	Store in cool area.
+32 °F to -20 °F (1 °C to -29 °C)	Warm un-opened drums and pails to 95 °F to 105 °F (35 °C to 41 °C) with band heaters. Heated/insulated reservoirs and lines are recommended. Warm pre-filled cartridges in heat chests or hot water before use.

Warning for Food-Related Facilities: All chemicals, including products made by our company and our competitors, have the potential to contaminate exposed food, packaged food, and food packaging supplies. Contamination can occur if goods are present when chemicals are used, or if goods are brought into the affected area after use but prior to the removal of any residual contamination. USDA, FDA and other laws and regulations may require the removal or careful protection of food and supplies, followed by possible odor removal and/or cleaning of room where chemicals are used or stored. It is the responsibility of the user to be familiar with and adhere to applicable laws and regulations. Assistance is available from many sources including the USDA (Karen Wesson, DVM, (202) 720-5627). The user is further advised that Metzger/McGuire will reject any and all responsibility and claims that result from the improper use or storage of our products.

8. Installation of Spal-Pro 2000

Important: Thoroughly read MSDS and balance of these instructions before opening containers or attempting to install. Wear/use all personal safety equipment called for in MSDS and follow all cautions concerning working environment.

Product Settlement, Surface Skin, Etc.

Product component A (gray part) may settle during storage and/or shipment. Thoroughly mix (drill and paddle) to redistribute all components before using. Drums have bung holes to accommodate bung drill/paddle. B component may skin over or exhibit crust if previously exposed to air moisture. Remove all traces by screening to prevent problems with flow through pumps. Place nitrogen blanket or other desiccant over any partially used B material in containers.

Dual-Cartridge kits may also incur settlement. Aggressively shake to re-dispense all chemicals.

Pre-Dispensing Measures

Power Dispenser - Run parts A and B through separate lines into cup before affixing mixing head or static mixer. This reduces chances of air entrapment which could cause ratio to vary.

Cartridges - See complete instructions in sheet packaged with cartridges.

Mixing Ratio: 2A:1B by Volume
2 Parts A (Gray) to 1 Part B (Amber)

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8. Installation of Spal-Pro 2000 (Continued)

Filling Joints and Cracks

All fillers including Spal-Pro 2000 have the potential to leave residue or stain on adjacent slab surface. If appearance is important, or if coating/sealer is to be applied later, protect adjacent surfaces with tape, soap, or removable sealer. Avoid getting sealer inside joint or crack; adhesion could be compromised.

Using a dual-feed power dispenser or pre-filled convenience cartridges, fill joints in one continual pass, taking care not to entrap large air bubbles.

Spal-Pro 2000 is only effective when its finished profile is flush with the floor surface. To achieve this, we recommend overfilling (crowning), then razoring off excess after product has converted to a solid. At ambient temperatures Spal-Pro 2000 may be shaved in as little as fifteen (15) minutes or days later, at installer's option. Shaving should not take place prior to material cure. In lower temperature applications, waiting up to 1 hour may be desirable. If material is not going to be shaved the same day of application in lower temperatures, application of heat will make shaving process easier and prevent chatter marks.

Repair of Larger Defects

Large masses of Spal-Pro 2000 placed at one time may set up faster due to increased heat build-up (exotherm). Wide patches of cured Spal-Pro 2000 may prove difficult to shave flush. Use a beltsander with 40, 60, or 80 grit paper to achieve desired profile.

Avoid abrasive grinding. Use proper safety equipment while sanding, avoid inhaling fumes or sanding residue (see MSDS).

9. Caution on Chemical Cure

Spal-Pro 2000 cures chemically through a reaction of parts A & B. Exercise caution during cure; do not inhale fumes, do not get chemicals on skin or in eyes. See MSDS.

10. Low Fills, Bubbles

Should Spal-Pro 2000 cure too low, solvent wipe and apply additional filler. Spal-Pro 2000 adheres well to itself. Abrading the first pass will provide mechanical bond insurance for second pass. If bubbling or air entrapment occur, follow material application with a propane torch or heat gun to eliminate air pockets. Heat should be applied prior to initial cure (within approx. 2 minutes).

At temperatures above 40 °F (4 °C), Spal-Pro 2000 will support moderate traffic in fifteen (15) minutes and full, heavy traffic in thirty (30) minutes. For installation in freezing conditions, these times will remain the same if material preparation instructions are followed. If variations in preparation procedures are suspected, it may be desirable to wait a bit longer or to confirm cure by probing with a sharp tool.

11. After the Installation

Clean-Up

Clean all tools and spills of unreacted material with solvent (toluol, xylol, MEK, etc.). Cured material can be removed by razoring or sanding.

Surface Treatments

If the floor is to be acid-etched, Blast-Trac'd or coated, allow several days cure if possible. A test coat is always advisable. Once cured, Spal-Pro 2000 is not affected by mechanical cleaning or most scrubbing compounds.

Traffic Exposure

At temperatures above 40 °F (4 °C), Spal-Pro 2000 will support moderate traffic in fifteen (15) minutes and full, heavy traffic in thirty (30) minutes. For installation in freezing conditions, it may be desirable to wait a bit longer before exposing areas to traffic if any variation in the product preparation techniques (See Section 7) is suspected. In most cases, however, there should be no substantial variation between cure times at different temperatures.

12. Joint Filler Separation

All concrete slabs continue to shrink in dimension for a year or more. Slab shrinkage results in joints opening wider. If joints widen beyond the expansive limits of Spal-Pro 2000, the filler will separate adhesively or cohesively, rather than tear the concrete. Separation is normal and expected, and should not be considered a failure of the filler. See technical data sheets for more information. When separation occurs, and void is wider than credit card thickness, clean void of debris and refill with additional Spal-Pro 2000.

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Customer Service - (800) 223-MM80 - Technical Assistance

E-Mail: specmm80@aol.com • Web Site: www.metzgermcguire.com

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13. Safety Precautions (Abbreviated)

a. Product Description

Spal-Pro 2000 is a fast-setting, two component polyurea polymer intended for industrial use only. Product is composed of a part A (gray liquid) and a part B (amber liquid). When combined at a ratio of 2A:1B (by volume), they react chemically, converting to a solid.

b. Basic Safety

This product is a chemical and should be handled carefully. Keep away from children, pets, and people not directly involved in its use. Always work in a clean, obstacle-free area that is well ventilated and lit, and where fresh air exchange is constant and adequate. Always use appropriate safety equipment called for in MSDS, including but not limited to splash-guard type chemical eye protection, protective gloves and aprons, a NIOSH/OSHA approved respirator designed for vapor/mist, etc. Avoid contact with skin and eyes. Avoid inhalation and ingestion, especially during reaction. Keep away from flame, pilots, excessive heat.

c. Chemical Protection Warning

Product is potentially most harmful during chemical reaction, when mild vapor/fumes are released and heat is generated. Inhalation can result in respiratory harm. Reacting product or containers holding same can result in burns.

d. Treatment for Exposure

Eye Contact

- Flush eyes with plenty of water for at least 15 minutes and seek medical attention promptly. Take a copy of MSDS, can labels, and this sheet for physician's reference.

Skin Contact

- Rinse thoroughly with soap and water. Follow-up with a skin cleaner cream. If rash or itching develops and persists, visit a physician. Wash affected clothes with laundry detergent and water prior to wearing again.

Sensitivity

- Some people are very sensitive to polyurea polymers. Sensitivity may be indicated by continued dermatitis (rash, itching, burning), shortness of breath, etc. If sensitivity symptoms occur, the person should be promptly removed from all further exposure. Sensitivity can be cumulative.

Inhalation

- Avoid inhaling polyurea components individually and especially when reacting in combination. If vapors or fumes are inhaled, seek fresh air immediately. If breathing is labored, give oxygen and seek medical help immediately. If breathing has stopped, administer artificial respiration until medical help arrives.

Ingestion

- Do not ingest. If ingested, do not induce vomiting. Seek medical help immediately if either part or both parts are ingested. Provide physician with Material Safety Data Sheet (MSDS) and labels.

e. Special Precaution - Sanding of Cured Product

Sanding of cured product (and adjacent concrete) can release harmful fumes and airborne dust, etc. All personnel in affected area should wear appropriate respirator or be removed from area.

f. Containers

Dispose of all empty containers, and other disposable items in full compliance with all applicable local, state and federal laws. Do not incinerate sealed containers.

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