



Re-Grouting Floor Joints in Commercial Kitchens and Industrial Applications

TDS 144

GENERAL CONDITIONS

Degradation or deterioration of an epoxy grout is a fairly rare occurrence, but can occur when the circumstances are right or when the wrong epoxy grout is used in areas subject to extreme conditions. Degradation or deterioration of portland cement based grouts is a more common occurrence in harsh commercial and industrial applications or areas exposed to chemicals.

Not all epoxy grouts are made the same. While LATICRETE® SpectraLOCK® 2000 IG may not be necessary for a residential kitchen floor, LATICRETE SpectraLOCK PRO Premium Grout*, LATICRETE SpectraLOCK PRO Grout would not be recommended for use in a dairy, full service commercial kitchens or other installations exposed to extreme conditions.

Deterioration can be caused by chemical erosion, extreme temperatures and even bacterial attack. The best defense against harsh chemicals, extreme conditions or exposure to bacterial attack is LATICRETE SpectraLOCK 2000 IG.

If an epoxy grout, with less performance quality, or a portland cement based grout was installed and is deteriorating, follow these instructions to re-grout with LATICRETE SpectraLOCK 2000 IG:

TOOLS REQUIRED

- Dustless circular saw or right angle grinder
- Epoxy grout floats
- Margin trowels
- Wet vacuum
- White nylon scrub pads
- Grout sponges
- Gloves
- Duct tape
- Plastic sheeting or other protection material

REPAIRING LOOSE OR CRACKED TILE

Carefully cut out cracked or loose tiles by cutting around the tiles with an angle grinder or circular saw with a dustless attachment.

The concrete should be clean (free of dirt, dust, curing compounds, sealers, grease, or any other material that can act as a bond breaker), degreased and have no standing water. The concrete can be ground down with an angle grinder to remove existing thin set mortar down to the top of the concrete surface.

Once the surface is prepared, use LATICRETE 254 Platinum (DS 677.0 available at www.laticrete.com) or for faster cure use LATICRETE 254R Platinum Rapid (DS 729.0) to install the tiles. LATICRETE 254R Platinum Rapid does not require an overnight cure prior to grouting the tiles – grouting can begin in approximately 2 – 4 hours at 70°F (21°C).

REMOVING EXISTING DETERIORATING GROUT

Option 1. Saw-cut existing joint with diamond blades

- a. Soak the floor and joints with a strong solution of bleach and water. Please follow all safety precautions set forth by bleach manufacturer (including the use of protective gloves and clothing).
- b. Allow the bleach to remain 30-60 minutes and wet vacuum excess solution off (this will help to soften all weak grout).
- c. Use hand-held electric circular saw or right angle grinder (e.g. Makita – www.makita.com) with diamond saw blades and dustless attachments to remove the softened grout. The diamond blades can even be “doubled-up” to ensure that the entire width of the grout joint is removed. The existing grout should be removed to at least ½ the depth of the grout joint down to stable and sound existing grout or bedding mortar. Be sure to scrape out all soft and loose grout and leave joints clean.
- d. After removing the grout, soak the floor using hot water containing a degreaser detergent (follow the manufacturer’s guidelines for mixing ratios). Typically, low pressure wash techniques can be used for this application.
- e. Allow the joints to soak with this solution a minimum of 10 minutes, or as stated by detergent manufacturer.
- f. Remove water using a wet vacuum.
- g. Rinse the floor two times with clean water and use wet vacuum to remove water.
- h. Blow the joints clean and dry with compressed air.
- i. Ensure that joints are clean, free of grease and oil contaminants, and are fully dry before installing LATICRETE® SpectraLOCK 2000 IG (or call LATICRETE Technical Services for proper grout recommendations). Use a wet vacuum to remove all standing water. The grout joints can be damp when the re-grouting takes place.

Option 2. Using a hot water, high pressure cleaning machine

Use a high pressure water jet with hot water and a pump capable of producing a minimum of 1,000 psi (6.9 Mpa). The use of hot water in the pressure cleaning system will help to soften and remove all questionable and soft grout.

NOTE: This option should only be used if the use of abundant water will not damage surrounding areas, equipment or other building elements. This option generally works best in wide open, slab-on-grade large industrial projects.

- a. Direct the high pressure jet at all the joints, moving continuously, to remove the existing grout. The existing grout should be removed to at least ½ the depth of the grout joint down to stable and sound existing grout or bedding mortar.
- b. After removing the grout, soak the floor using hot water containing a degreaser detergent (follow the manufacturer’s guidelines for mixing ratios). Allow the joints to soak with this solution a minimum of 10 minutes.
- c. Remove water using a wet vacuum.
- d. Rinse the floor two times with clean water and use wet vacuum to remove water.
- e. Blow the joints clean and dry with compressed air.
- f. Ensure that joints are clean, free of grease and oil contaminants, and are fully dry before installing LATICRETE SpectraLOCK 2000 IG (or call LATICRETE Technical Services for proper grout recommendations). Use a wet vacuum to remove all standing water. The grout joints can be damp when the re-grouting takes place.

RE-GROUTING WITH LATICRETE SpectraLOCK 2000 IG

Preparation

Please read LATICRETE Product Data Sheet 030.0 and the LATICRETE SpectraLOCK 2000 IG installation instructions (DS 004.5) prior to using LATICRETE SpectraLOCK 2000 IG. Store epoxy components for 24 hours at 70°F – 80°F (21°C – 27°C) to make mixing and application easy. For exterior applications, consult LATICRETE Technical Services. Ensure that joints are clean, free of grease and oil contaminants, and dry before installing LATICRETE SpectraLOCK 2000 IG (or call LATICRETE Technical Services for proper grout recommendations).

Temperature

Surface temperature range for installation must be 60°F – 90°F (16°C – 32°C). For LATICRETE SpectraLOCK 2000 IG: 45°F – 90°F (7°C – 32°C). Hot temperatures decrease working time and accelerate cure. Cold temperatures thicken epoxy resins and retard cure time.

Mixing

Mix LATICRETE SpectraLOCK 2000 IG according to LATICRETE SpectraLOCK 2000 IG installation instructions (DS 004.5, included with each kit of LATICRETE SpectraLOCK 2000 IG). Pour LATICRETE SpectraLOCK 2000 IG Part A and Part B into a clean mixing pail and mix thoroughly with a drill mixer until all liquids are completely blended. Add all of the LATICRETE SpectraLOCK Part C Powder. Using a high speed drill (> 450 rpm), mix the grout thoroughly for a minimum of 2 minutes and until a creamy, loose consistency is achieved. The mixing should aerate the grout to a very fluffy mix. For large scale production work, stage mixing area to allow for continuous mixing of multiple units in accord with the manpower available on site.

Grouting

Grout can remain in bucket during installation. Remove debris from grout joints. Clean tile surface with water and let dry. Do not leave water in joints. Continue to use a wet vacuum to soak up all standing water as work proceeds.

Note: Some tile and stone may be stained or scratched by grouting. Conduct a test area to determine suitability and acceptability of the grout and tile.

Use a hard rubber epoxy grout float to pack and compact the joints fully. Pass the float diagonally held at a 90° angle across the tile to ensure the joints are packed fully and to avoid material being pulled out of the joint. Remove excess grout from tile surface. Do not leave a heavy film.

Initial grouting cleanup

Add Initial Wash Cleaning Additive to 2 gallons (7.6 L) of clean water and mix until fully dissolved (Do not mix cleaning additive with grout). For LATICRETE SpectraLOCK 2000 IG cleaning can begin approximately 15 minutes after grouting at 70°F (21°C). Apply abundant clean water to tile. Lightly scrub in a circular motion with white nylon pad to loosen grout residue on tile surface and to form the joints. Remove froth by dragging a clean, damp grout sponge diagonally horizontally across tile with hands held low. Rinse sponge frequently and change water every 150 ft² (14 m²) or less. Repeat twice.

Final grouting cleanup

Wait at least 90 minutes at 70°F (21°C) before beginning the final wash. Add Final Wash Cleaning Additive to 2 gallons (7.6 L) of clean water and mix until fully dissolved. Use the same cleaning procedure as the first wash, but

try to avoid contacting the grout (clean tile surface only). At this time, repair any pinholes, clean up job site and clean base off.

Final Inspection

Inspect after 6 to 12 hours for LATICRETE® SpectraLOCK 2000 IG. If any haze remains on tile, scrub with warm soapy water.

Caution

Always use protective clothing (gloves, long sleeve shirt, and safety glasses) when working with epoxies. Epoxy and epoxy components may irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water. Keep out of reach of children.

Set Times

To facilitate faster setting time, the use of a space heater can be used to warm the surface of the tile AFTER the installation is complete, the second wash has been finished and any residual haze has been removed. The space heater should warm the surface and not blow hot air directly onto the tile and grout. In other words, propane salamander heaters blowing hot air on the floor is not a great idea; but, an electrical space heater with a fan may be very beneficial to helping the grout cure in a shorter time frame. The temperature of the surface is more important than the air temperature for rapid curing. This means that the air temperature will have to be warm as well. Keep traffic off the floors until the grout becomes tack-free.

Protection

Protect grout from dirt and dust before opening to foot traffic (see Time To Traffic chart on DS 030.0 for more information). Do not leave standing water on the joints before covering them. Maximum stain and chemical resistance is achieved after 7 days for LATICRETE SpectraLOCK 2000 IG.

The floor must be covered, prior to leaving the jobsite. For dry areas, cover the floor with plastic or nonstaining craft paper (e.g. storage rooms, closets, etc...). Duct tape can be used to tape the plastic or nonstaining craft paper in place. For wet areas, cover the floor with hard surface protection board (e.g. Masonite®, plywood or other hard board surface). In both instances, protect the floor for a minimum of 24 hours (or if possible 48 hours or longer) to protect the grout. At times, hard surface protection board material can be tacked into the fresh grout joints to stabilize and keep the protection board in place. If this technique is used, it is important to note that the fastener / tack holes created must be regrouted.

Caution: When grouting cold floors (surface temperatures below 60°F [16°C]), protect the floor from contamination for an extended period of time as the hardening of epoxy is retarded at lower temperatures. Coolers and freezers should be turned off and the floor allowed to get sufficiently warm for installation. Installations made in coolers that are still cold will require longer cure times.

Validation of Warranty

Customer maintains receipts as proof of purchase and records of areas repaired (e.g. photos / diagrams, etc... clearly outlining repaired areas) in project files.

NOTES: LATICRETE SpectraLOCK 2000 IG can be installed and washed with machines designed for this purpose. Raimondi USA makes a complete line of machines for this type of installation.

See LATICRETE® Technical Data Sheet 411 – LATICRETE and No Rinse Cleaners for information on the maintenance of tiled floors grouted with LATAPOXY® Grouts.

See LATICRETE Technical Data Sheet 400 – Grout Guide for more information on LATICRETE and LATAPOXY Grouts.

* United States Patent No.: 6881768 (and other Patents)

Technical Data Sheets are subject to change without notice. For latest revision, check our website at www.laticrete.com
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