

SPECTRALOCK® 2000 IG Grout Guide TDS 400

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LATICRETE® Grout Guide

Introduction:

Grout, when properly installed, will enhance the final appearance and performance of any tile, paver, stone, or brick installation. The LATICRETE International Technical Service Dept. offers this LATICRETE Grout Guide to ensure that the project specifier is given enough information to make the best possible decision about the selection, installation and maintenance of grout.

Please refer to this guide prior to beginning any tile installation - ideally while you are in the project design phase. This guide offers general information to facilitate the many steps or decisions that must be made regarding grout type, installation and long-term maintenance.

SECTION 1:

Selection of LATICRETE Grout Colors:

The LATICRETE® System offers readily available, factory prepared grout in a wide range of colors. LATICRETE Grouts can also be custom color matched to many colors not available in the LATICRETE Grout color spectrum. Custom color matching involves a minimum 2,000 lb/907 kg (approx.) order for SPECTRALOCK® Part C powder. There is a color matching fee which is non-refundable if product is not ordered. A credit will be applied to the order when placed.

This array of colored grouts offers unlimited design freedom. Room function, exposure to chemicals, soiling, or moisture must be taken into account when selecting grout colors. Please note the following points about colored grout:

- 1. Printed samples of grout colors are made as accurate as possible. Mixing with other additives will cause slight variation. The LATICRETE Grout Color Card depicts colors representative of PERMACOLOR® Grout mixed with water; or, 1500 Sanded Grout & 1600 Unsanded Grout that are mixed with 1776 Grout Enhancer; SPECTRALOCK® PRO Premium Grout; SPECTRALOCK PRO Grout; SPECTRALOCK Grout; LATAPOXY® SP-100; and SPECTRALOCK 2000 IG. IMPORTANT NOTE: Color samples are printed reproductions, and should only be used as approximate guides to appearance. Actual shade and texture will depend on jobsite conditions, installation technique, tile characteristics, lighting, and other factors beyond grout/sealant manufacturer's control. Verify appearance with a test area before main installation commences. See Grout Color Chart for color applicable to each type of grout.
- 2. White or lightly colored grout joints show soil readily. For example, commercial kitchen joints that are wide and white will appear to be dirty in a shorter period of time than a narrow or darker joint would.
- 3. Neutral gray, dark gray or medium colored grouts are less likely to show soil than will a light colored grout.
- 4. Dark joints in a shower or exterior may show water deposits and/or the natural occurrence of efflorescence more readily than a lighter colored joint.
- 5. For maximum color consistency always use grout with the same control/lot number. Grout colors may vary due to jobsite conditions (e.g. temperature, cure rate, moisture content, etc...). Dry mix grout powder if different control numbers will be used.
- 6. Some grout pigment can stain the surface of certain types of tile, etc. A grout release, tile sealer or paraffin wax applied to the top of these types of tiles prior to grout installation, may reduce staining problems. Verify compatibility with a test area.

Section 2:

LATICRETE Grout Coverage:

- 1. Coverage of LATICRETE grout products is available by referencing the LATICRETE Grout Coverage Calculator located at www.laticrete.com/coverage .
- 2. Coverage may vary considerably when grout joint width varies or when cushion-edge or wave-edge tile are specified. When several tiles are used to create an overall pattern, grout width will be predetermined by any mounted tile.
- 3. It is customary to provide extra grout (typically 10% extra) to allow for jobsite waste. Additional grout should be provided to the building owner for future use.
- 4. LATICRETE Grout Coverage Calculator is a user-friendly Microsoft Office Excel spreadsheet which provides automated calculation of grout coverage in both the English and Metric Systems.

Section 3:

Criteria for Finished Grout Appearance:

The following criteria should be used to judge the final grout installation. Finished joints must be:

- 1. Uniform in color, no "show through" of setting/fixing materials
- 2. Compacted and cured to maximum hardness (not powdery)
- 3. Smooth and evenly filled
- 4. Free of voids or pinholes
- 5. Grout can be finished to near level of tile surfaces (except with the installation of cushioned edge tile where requirement is to depth of cushion, and epoxy grouts, where slight depression is accepted by the industry)
- 6. Grout should not be higher than the tile surface
- 7. No grout or grout haze should remain on surface of tile, etc...
- 8. Contact and adhesion by the grout to each tile is crucial for both long-term performance and maintenance

Section 4: Part A

SPECTRALOCK 2000 IG - Installation Procedures

Storage:

- 1. Store materials at room temperature $70^{\circ}F$ ($21^{\circ}C$). To facilitate installation, mix and apply material at or near room temperature $70^{\circ}F$ ($21^{\circ}C$).
- 2. Cold floor temperatures or cold liquids will impair workability. If liquids are cold, separated, or crystallized, immerse the sealed containers in hot tap water until they become clear of any crystals and do not separate after shaking.

DO NOT INSTALL SPECTRALOCK 2000 IG when surface temperatures are above 90° F (32°C) or below 45° F (7°C)

Section 4: Part B

SPECTRALOCK 2000 IG - Installation Procedures

Prior To Grouting:

1. Read ALL instructions BEFORE proceeding. Follow directions as written.

- 2. Use plenty of thin-set and beat tile/stone in properly; leave no ridges or voids beneath tile/stone for grout to flow into. Allow tile installation to set hard before grouting.
- 3. Before starting to grout, remove debris in grout joints and lightly sponge the tile surface to remove dust and dirt. Do not use acid. Do not leave standing water in joints.
- 4. Follow temperature guidelines as stated in Section 5, Part A.
- 5. Check to insure that multiple boxes / bags of SPECTRALOCK Part C powder are all the same batch number. Minor shade variations may occur from batch to batch. Dry mix grout powder if different control numbers will be used. Manufacturer is not responsible for different batches being used on same job.

PROPER TOOLS REQUIRED

- 1. Clean bucket (provided with each full unit) and a clean margin trowel for mixing.
- 2. Hard rubber epoxy float (e.g. Walton GK1) is a must for quarry tile. Standard floor grout floats may be used for glazed tile (particularly cushion-edge tile).
- 3. White scrub pad for initial cleaning of SPECTRALOCK 2000 IG (one included with each unit of grout.
- 4. A closed cell sponge or heavy nap white towel for final cleanup of SPECTRALOCK 2000 IG and touch ups.

Section 4: Part C

SPECTRALOCK 2000 IG – Installation Procedures

Mixing of SPECTRALOCK 2000 IG:

- 1. Pour SPECTRALOCK® 2000 IG Part A and Part B into a clean mixing pail and mix thoroughly with a drill mixer until liquids are completely blended.
- 2. Add all of the SPECTRALOCK Part C powder.
- 3. Whip the mix thoroughly with a high speed drill (>450 rpm) for a minimum of 2 minutes and until a creamy, loose consistency is achieved. The mix will look thick at the beginning. Mixing the grout properly will aerate the grout and the result will be a light and fluffy mix. WHIP the SPECTRALOCK 2000 IG well!

See Data Sheet 004.5 for complete installation instructions for SPECTRALOCK 2000 IG.

Section 4: Part D

SPECTRALOCK® 2000 IG - Installation Procedures

Installation of SPECTRALOCK 2000 IG:

- 1. Wipe down tile with a damp sponge and allow tile to dry prior to grouting.
- 2. Grout may remain in bucket while grouting. However, for maximum working time and pot life, remove grout from bucket immediately after mixing.
- 3. Spread the grout with a sharp, firm rubber grout float.
- 4. Work the grout into the joints and insure that the joints are completely full.
- 5. Remove excess grout from the face of the tile with the edge of the grout float. Hold the float at a 90° angle and pull it diagonally across the joints and tile to avoid pulling grout out of the joints.
- 6. Please note that SPECTRALOCK 2000 IG does not require any additive for vertical installations.

Section 4: Part E

SPECTRALOCK 2000 IG - Installation Procedures

Installation Clean-Up of SPECTRALOCK 2000 IG:

- 1. Wait approximately 15 minutes at 70°F (21°C) prior to beginning initial wash.
- 2. Add Initial Wash Cleaning Additive to two (2) gallons (7.6L) of clean water and mix until the cleaning additive is fully dissolved. DO NOT ADD CLEANING ADDITIVE TO GROUT!
- 3. Wipe grout joints and tile surface with a white scrub pad and plenty of the water/cleaning additive solution in a circular motion to loosen epoxy residue and to form the joints.
- 4. Drag a clean, damp sponge or damp white terry cloth towel across the surface to remove grout residue and froth.

Final Clean-Up of SPECTRALOCK 2000 IG:

- 1. Wait at least 90 minutes at 70°F (21°C) prior to beginning final wash.
- 2. Add Final Wash Cleaning Additive to two (2) gallons (7.6L) of clean water and mix until the cleaning additive is fully dissolved.
- 3. Wipe tile surface with a white scrub pad and plenty of the water/cleaning additive solution in a circular motion to loosen any remaining epoxy residue. Try to avoid contact with grout.
- 4. Drag a clean, damp sponge or damp white terry cloth towel across the surface to remove grout residue and froth.

Final Inspection of SPECTRALOCK 2000 IG:

- 1. Inspect installation after 6 12 hours.
- 2. If any haze remains on the tile, scrub with warm soapy water and white scrub pad.
- 3. Drag a clean, damp sponge or damp white terry cloth towel across the surface to remove grout residue and froth.
- 4. Protect grout from dirt and dust prior to opening for traffic (please refer to DS 030.0 for more information on time to traffic). Do not leave standing water on the grout joints before covering them. Maximum stain and chemical resistance is achieved after 5 days @ 70° F (21° C).

Section 4: Part F

Removal of SPECTRALOCK® 2000 IG haze:

- For up to 48 hours after installation Use 1/4 cup (60 mL) electric dishwasher detergent (e.g. Cascade, Electrosol, etc...). per 3.5 gallons (13.2 Liters) pail of water. Liberally apply the dishwasher detergent / water solution to the surface with a mop. Then broadcast silica sand or SPECTRALOCK® Grout Part C powder over the floor. Use a buffing machine with a white scrub pad and make several passes over the floor. Next, vacuum up the solution and sand with a wet vac. Rinse well with clean water. Repeat process as required. Do a test area to confirm results.
- Thoroughly rinse area with clean water to insure that all the detergent solution has been removed.
- For haze older than 24 hours Allow the grout to cure for a minimum of 5 days at 70°F (21°C). Use any one of the epoxy grout haze cleaners manufactured by one of the company's listed below. Apply a layer of the proprietary cleaner to the surface of the tile with the haze. Broadcast silica sand or SPECTRALOCK Grout Part C powder over the floor. Use a buffing machine with a white scrub pad and make several passes over the floor. Next, vacuum up the solution and sand with a wet vac. Rinse well with clean water. Repeat process as required.

To ensure good results and compatibility with the tile or stone, always verify results with a small test area.

Contact any of the following manufacturer's for their product recommendation for removing epoxy grout haze;

- The Miracle Company 1-800-350-1901
- StoneTech Professionals 1-888-786-6343
- Walter Legge Company 1-800-345-3443

The products recommended by the above manufacturers may also be used with sand and then agitated with a nylon scrub pad.

For stubborn film that also includes embedded SPECTRALOCK Part C powder use a commercial gel type water cleanable paint remover (e.g. Zip Strip, Strip-Eze, Red Devil, Jasco), and scrub with a nylon pad to dislodge the haze. Always conduct a small test area to verify results. Do not over expose the grout joints to these cleaners.

Neutralize the effects of the cleaners by thoroughly rinsing the floors with either Tri-Sodium Phosphate (TSP) or a solution of baking soda and clean water. Then rinse thoroughly with clean water. WARNING/CAUTION: Strong detergent solutions require eye protection and gloves.

Section 4: Part G

SPECTRALOCK 2000 IG - Installation Procedures

Removal of SPECTRALOCK 2000 IG From Grout Joint:

For all removal methods, always:

- 1. Protect/mask off carpeting, woodwork and other finishes near the work area;
- 2. Verify results first with a small test area in an inconspicuous area;
- 3. Remove at least ½ the depth of the existing grout joint prior to re-grouting;
- 4. Provide effective ventilation.

Mechanical Removal

This method is fast; but great care must be taken to avoid damage to tile surface and edges. Use small circular or right angle saws with diamond cutting blades equipped with dustless vacuum systems. The vacuum system will minimize the amount of airborne dust. This system can be used in occupied structures. Proper re-grouting depth is approximately ½ the depth of the existing joints.

Chemical Removal

1. Apply non-flammable, water cleanable, gel type Paint and Epoxy remover directly to grout joints. Be absolutely certain to follow manufacturer's safety precautions & warning instructions on the label. ROOM MUST BE WELL VENTILATED! Do a small test area to confirm results prior to doing the entire installation.

- 2. Allow remover to remain on the grout joints as long as necessary to remove epoxy (usually 30 minutes to 2 hours).
- 3. Using a narrow brass or wire brush (NOTE: wire brush may scratch some types of tile, test before using), rake out joints (minimum ½ depth of the grout joint).
- 4. Wash with a solution of Spic & Span, tri-sodium phosphate (TSP) or machine dishwasher detergent (1/2-cup detergent in 2 qt. of warm water) to completely neutralize the paint remover.

Warning: Detergent solutions require eye protection and gloves.

- 5. Remove any and all loose or free epoxy from the grout joints. A wet/dry vacuum works best for this procedure. Rinse with clean water. Remove all excess water from joints with wet/dry vacuum, sponge or dry cloth and allow joints to dry completely.
- 6. Sweep joints again with stiff dry brush to remove all residue.

Heat Gun Removal

This method is well suited for "spot" (singular) tile repairs. Use a High Power Industrial Heat Gun (1200 Watt, \geq 500°F [\geq 260°C]). These devices will soften the cured grout and enable it to be scraped out. DO NOT USE TORCHES. Do a test patch to verify results. The heat gun method requires patience. Finished surfaces need to be protected from the heat. Also, the heat gun may damage some soft glazed tiles. This method may produce some odor so adequate ventilation is required.

Section 4: Part H

SPECTRALOCK® 2000 IG Maintenance Guide:

NOTE: LATICRETE® and LATAPOXY® Grouts require routine cleaning with a neutral pH soap and water. Contact the manufacturer if another cleaner type will be used to ensure compatibility with the grout.

1. Advantages of SPECTRALOCK 2000 IG

- Stain and soil resistant
- Stays uniformly colorfast over time
- Never needs to be sealed
- Resists exposure to many acids, alkalis and chemicals
- Will not peel, crack or pulverize
- High strength

SPECTRALOCK 2000 IG is extremely low in absorption <0.5%). Liquids will not penetrate the surface of these grouts due to the low absorption rate. Dirty grout can always be cleaned down to the original color - not so with portland cement based grouts, latex modified portland cement grouts or modified epoxy grouts. Stains become part of portland cement-based grouts.

Protect grouted areas from traffic and other trades for at least 24 hours after installation or until the grout is hard and no longer tacky. For areas that must have traffic during curing time, cover installation with brown Kraft paper (after grout is no longer tacky) and plywood or other temporary load bearing course. Protect grout from dirt and dust for 72 hours at 70°F (21°C). Please note that temperatures lower than 70°F (21°C) will require protection from traffic for a longer period of time.

Full chemical resistance is not achieved with SPECTRALOCK 2000 IG for 5 days after installation @ 70°F (21°C). Prior to this, and following the 10 hour "Time To Heavy Traffic" period, the grout may be cleaned only with neutral pH soap and water. Any exposure to chemicals, food or other staining agents must be cleaned up promptly.

- 2. Routine Maintenance of SPECTRALOCK 2000 IG: SPECTRALOCK 2000 IG is stain resistant when properly installed and allowed to cure properly. It is, however, not self-cleaning. Routine maintenance can be done with neutral pH detergents and a sponge or mop. For tough or difficult to remove soil, a bleaching cleaner (e.g. Soft Scrub, Comet, Ajax, etc. or electric dishwashing detergent) on a nylon scrubbing pad or a long handled stiff bristle brush can be used. Please note: Prior to using any cleaning material on a tile installation, test a discrete area or scrap piece of tile to ensure desired results.
- 3. **Power Washing SPECTRALOCK 2000 IG:** The pressure setting for power washing SPECTRALOCK 2000 IG should be between 750 and 1,000 psi (5.2 6.9 MPa) with the wand getting no closer than 12" (300mm) to the tile or

grout. The goal is to not create erosion of the grout. Power washing should only be performed on grout which is fully cured.

4. Commercial Kitchens

SPECTRALOCK[®] 2000 IG exposed to grease, oil, and areas of potential bacteria accumulation (floor drains, equipment supports, etc.) should be cleaned daily using suitable degreasing materials, disinfecting cleaning agents, and a commercial floor washing machine, and then thoroughly rinsed. SPECTRALOCK 2000 IG is recommended for high abuse areas such as commercial kitchens. Please refer to TDS 411 "LATICRETE Grouts and No Rinse Cleaners" for more information on no rinse degreasing agents and LATICRETE grout.

Section 4: Part I

SPECTRALOCK 2000 IG Working Time @ 70°F (21°C)

Working Time: 80 Minutes

SPECTRALOCK 2000 IG Time To Service @ 70°F (21°C)

Floor	Time To Light	Time To Heavy	Full Cure
Temperature	Traffic	Traffic	
40°F (5°C)	24 Hours	48 Hours	7 Days
50°F (10°C)	20 Hours	32 Hours	7 Days
60°F (16°C)	16 Hours	24 Hours	7 Days
70°F (21°C)	5 Hours	10 Hours	5 Days
80°F (27°C)	4 Hours	7 Hours	1 Day
90°F (32°C)	2 Hours	3 Hours	12 Hours

Certified Service Ratings*:

- 1. Light Traffic Normal residential foot traffic
- 2. Moderate Traffic Normal commercial and light institutional traffic, restaurants, stores, shopping malls
- 3. Extra Heavy Traffic Heavy commercial use, high impact service, meat packing areas, industrial work areas, commercial and institutional kitchens

Technical Data Sheets are subject to change without notice. For latest revision, check our website at www.laticrete.com
TDS 400.doc

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^{*} See ASTM Standard C627 - Standard Test Method for Evaluating Ceramic Floor Tile Installation Systems Using the Robinson-Type Floor Tester.

[^] United States Patent No.: 6881768 (and other patents)