



LATICRETE Grout Guide

TDS 400

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LATICRETE® Grout Selection and Maintenance 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 Selection and Maintenance Guide to insure 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® PRO Premium Grout, 2,000 lb/907kg (approx.) and for SPECTRALOCK PRO Grout; or 5,300 lb/2,410kg (approx.) order for PERMACOLOR® Grout, 1500 Sanded Grout or 1600 Unsanded Grout. PERMACOLOR Select® special orders require a minimum of 227 color packs to be mixed with 227 - 25 lb. (11.3 kg) bags or 454 - 12.5 lb. (5.7 kg) bags of PERMACOLOR Select 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. The LATICRETE Grout Color Chart (DS 254.3) depicts 1500 Sanded Grout & 1600 Unsanded Grout when mixed with clean potable water. 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 Select and PERMACOLOR Grout mixed with water; PLASMA™; 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).
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 Data Sheet 254.3, the LATICRETE Grout packaging coverage chart, or 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 app can be accessed through the App Store for Apple devices or through Google Play for Android devices. Use keyword LATICRETE to locate the LATICRETE App.

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. Without 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

LATICRETE® Portland Cement Based Grouts – Installation Procedures

Prior To Grouting:

1. Sample boards (mock-ups) with installed tile and grout should be presented to, and approved by the project specifier. Mock-ups are typically a minimum of four tiles or 12”-24” (30cm-60cm) square depending on the tile size. One mock-up should be left at the job site throughout the duration of the project.
2. Excess adhesive and tile spacers must be removed prior to grouting.
3. Grouting and curing shall (ideally) be performed at temperatures between 40° - 90°F (5° - 32°C).
4. Adhesive mortar must be dry, this allows grout to cure evenly in all of the joints.
5. Joint width and depth should be the same throughout the installation. It is recommended that the grout joint be filled a minimum of two-thirds of the tile thickness.
6. Allowing the setting/fixing system four to five days @ 70°F (21°C) to cure prior to grouting and use of an admix will greatly reduce the problem of efflorescence.
7. Porous, rough textured and absorptive tile should be temporarily coated or sealed with a grout release or paraffin wax (on the surface only) to insure grout clean-up and alleviate the possibility of staining by pigmented grout.
8. Uniform curing conditions must be maintained at the job site.

Section 4: Part B

LATICRETE Portland Cement Based Grouts – Installation Procedures

Mixing of Grout:

1. For PERMACOLOR® Select add the PERMACOLOR Select Color Pack(s) to the recommended amount of clean, potable water, wait for the pigment pack to dissolve and then mix until fully blended. For PERMACOLOR Grout mix with clean, cool potable water. For 1500 Sanded Grout or 1600 Unsanded Grout use 1776 Grout Enhancer or clean, cool potable water throughout the project.
2. Mix each batch with the same quantity of gauging liquid (to the same thick paste consistency).
3. Manufactured grout should all be from the same batch/lot and have the same control number. If using grout from different batches, dry mix powders thoroughly prior to adding gauging liquid.
4. Mix grout with slow speed mixer (max. 150 RPM) or by hand.
5. Allow proper slake time (5-10 minutes) per manufacturer’s instructions and re-mix prior to installation. Slake time typically applies to grout containing cement only.

Section 4: Part C

LATICRETE Portland Cement Based Grouts - Installation Procedures

Installation of Cement Based Grouts:

1. Dampen the tile & joints prior to grouting.
2. Grout all areas using exactly the same procedures.
3. Use a firm rubber float to both fill and compact the joint and to remove excess grout. Working diagonally to the tiles will assist in filling joints completely and help in removal of excess material.

NOTE: FOR FULLER FLUSH JOINTS:

4. A small quantity of the dry grout powder can be dusted lightly over the entire wet grout surface and allowed to remain 5-10 minutes or until the joints are stiff. Rub tile surface with a dry coarse cloth, burlap or with a power buffing machine (nylon pad) to remove any film remaining on the tile surface. Sweep off and discard dry material. Allow grout to harden - haze develops on tile after approximately 1-2 hours.
5. Use a damp sponge or cloth to remove grout haze. Using excessive amounts of water or flooding the grout with water makes the joints weak, powdery, discolored and encourages shrinkage cracks.
6. Plan your grouting. End one days grouting so it will join the next day's grouting at an inconspicuous area.
7. Low temperatures will retard the setting of portland cement based grouts. Protect any installations from traffic for a longer period of time in cold areas.

Section 4: Part D

LATICRETE® Portland Cement Based Grouts – Installation Procedures

Damp Curing and Protection of Grouted Areas:

Damp cure portland cement based grouts mixed with water a minimum of 72 hours under 40lb (18kg) non-staining Kraft paper cover. Damp cure by lightly spraying or fogging the surface with clean water (no puddles) then cover the surface with a single layer of 40 lb. non-staining brown Kraft paper. Newspapers or polyethylene film are not recommended as a cover during the damp cure process. Repeat several times a day for 72 hours.

This process will produce better results in very hot or arid climates where optimum hydration of the grout can be an issue.

Section 4: Part E

LATICRETE Portland Cement Based Grouts – Installation Procedures

Removing Cement Based Grout Haze:

1. Remove grout haze from the tile surface with a damp sponge as soon as possible - preferably the same day that the grouting was done, or, within 24 hrs. Hardened grout film or haze may be removed using an appropriate tile & grout cleaner.

1. Do a discrete test area to ensure desired results
2. Dampen floor with clean water and allow the grout joints to absorb the water.
3. Sprinkle fine sand (40-80 mesh) over the surface and dampen with the cleaner.
4. Allow to soak 15-30 minutes.
5. Use a power scrubbing machine with a coarse textured nylon pad to polish off the surface and remove the grout film.

CAUTION:

DO NOT USE SAND ON SOFT GLAZED TILES, GLASS TILES OR POLISHED STONE.

DO NOT USE ACID TYPE CLEANERS!!

Old grout and thick coatings are difficult to remove. If they cannot be removed using the cleaning solution, fine sand and a power-scrubbing machine, then it will be necessary to use a stronger cleaner.

There are a variety of proprietary latex grout haze removal products available. Consult one of the following grout & tile maintenance material manufacturers for further recommendations;

LATICRETE STONETECH® 1-888-786-6343

SECTION 4: PART F

LATICRETE® Portland Cement Based Grouts - Installation Procedures

Sealing of Cement Based Grout:

There are currently no ANSI or ASTM standards for sealers. Materials and Methods Standards Association (MMSA) Bulletin #12 does provide general information on use of sealers. A sealer may be applied to cement based grouts, latex-

cement based grouts or modified epoxy grouts after final grout clean-up and presentation for owner acceptance. Sealers typically fill and /or protect porous surfaces of both ceramic tile and grout joints. Sealers can prevent staining, simplify long-term maintenance or enhance an installation's appearance.

It is necessary to contact the manufacturer of the sealer prior to product usage. Selection of the sealer will vary due to the requirements of each job. It is always recommended practice to test any sealer on a small, inconspicuous area prior to use on a larger area. Parameters for choosing sealer depend on:

- Type of tile and grout installed
- Exterior/ interior exposure
- Traffic or floor duty rating
- Purpose of sealer
- Reduce staining
- Simplify maintenance
- Enhance installation appearance

SOME QUESTIONS TO ASK THE SEALER MANUFACTURER:

- How many coats are needed?
- Is it a penetrating sealer or a topical coating?
- Will sealer alter the tile or grout appearance (e.g. makes the surface shiny or matte, alter color, etc.)?
- How long after grouting should you wait before sealer application?
- Can sealer be removed?
- Will the sealer need routine maintenance or reapplication?

Contact the following company for recommendation of proper material for your installation;

LATICRETE® STONETECH® 1-888-786-6343

Section 4: Part G

LATICRETE Portland Cement Based Grouts - Installation Procedures

Maintenance of Portland Cement Based Grouts:

Standard mopping of tile simply moves the dirt off the tile (the high points) and deposits that dirt into the grout joints (the low points). Correct cleaning procedure entails specifying the right cleanser, proper equipment to actually scrub both joints and tile followed by wet vacuuming and thorough rinsing of the tile.

Clean the installation with a neutral cleanser. Rinse with water and polish dry with a Turkish towel twice a week for the first month after installation. Regular cleaning can be done with a damp cloth or mop. Thorough cleaning with a neutral detergent can be done on weekly or monthly intervals.

The following steps should be done for problem cleaning:

- A. Sweep tile and joints of loose debris
- B. Apply a neutral cleaner with a wet mop
- C. Allow cleaner to soak on surface of tile
- D. Scrub exceptionally dirty areas with nylon (Mylar) bristle brush
- E. Wet vacuum areas of excess water and dirt.
- F. Rinse with clean water and remove excess water with well rinsed (or clean) mop.
- G. Polish dry

There are no ANSI or ASTM performance requirements for cleaners. For listing of current Materials and Methods Standards Association (MMSA) members who manufacture or market cleaners write to:

Materials and Methods Standards Association Bulletins

www.mmsa.ws

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.

Section 4: Part H

LATICRETE Portland Cement Based Grouts – Installation Procedures

Grout Joint Repairs/ Remodeling:

Examples of common cement based grout problems are as follows:

1. **Discolored or Blotchy Grout Joints:** caused during installation by washing the grout pigment out of fresh joints with excess water, mixing grout with excess water, different control numbers, and/or acid cleaning.
2. **Sandy or Weak Grout Joints:** caused by excessive liquid in mixing and/or cleaning, hot and/or dry temperature during installation or curing, improper hydration of grout, excessive deflection, etc...
3. **Depressed Grout Joint:** caused by erosion, improper packing of joints during installation, repeated acid washing, or grout filling voids beneath tile.

Repairs for most grout conditions listed above can be easily made using PERMACOLOR® Select[^], PERMACOLOR Grout, or, 1776 Grout Enhancer mixed with the preferred colored 1500 Sanded Grout or 1600 Unsanded Grout. This is an economical method for re-grouting damaged, discolored or bleached grout joints.

Regrouting which is done with a soft, plastic grout mixture will adhere to properly cleaned and prepared existing joints and produce a durable, long lasting joint.

Grout joints must be scratched or raked out to remove material to approximately half the depth of the grout joint or more down to hard and stable existing grout. This will allow the new latex fortified grout to be applied and fill to sufficient depth of the joint to provide a strong, durable surface over the old grout.

Section 5: Part A

SPECTRALOCK® PRO Premium Grout, SPECTRALOCK PRO GROUT, SPECTRALOCK Grout, LATAPOXY® SP-100, and SPECTRALOCK 2000 IG – Installation Procedures

Storage:

1. Store materials at room temperature 70°F (21°C). To facilitate installation, mix and apply material at room temperature 70°F (21°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 PRO Premium Grout, SPECTRALOCK PRO Grout or SPECTRALOCK Grout when surface temperatures are above 95°F (35°C) or below 40°F (5°C)

DO NOT INSTALL LATAPOXY® SP-100 when surface temperatures are above 90° F (32°C) or below 60° F (16°C)

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

(SEE “SPECIAL APPLICATIONS”, SECTION 5, PART F)

Section 5: Part B

SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO GROUT, SPECTRALOCK Grout, LATAPOXY SP-100, and 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 cartons / bags of SPECTRALOCK Part C powder are all the same batch number. Minor shade variations may occur from batch to batch. Manufacturer is not responsible for different batches being used on same job.

PROPER TOOLS REQUIRED

6. Clean bucket (provided with each full unit) and a clean margin trowel for mixing.
7. Hard rubber epoxy float (e.g. Walton GK1) is a must for quarry tile. Standard grout floats may be used for glazed tile (particularly cushion-edge tile).

8. White scrub pad for initial cleaning of LATAPOXY® SP-100 and SPECTRALOCK® 2000 IG (one included with each unit of grout); and secondary cleaning of SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO Grout and SPECTRALOCK Grout (not included).
9. 100% cotton flannel fabric or heavy nap white towel for use in “dragging” for cleanup of LATAPOXY SP-100, and a closed cell sponge for final cleanup of SPECTRALOCK 2000 IG and touch ups. Flannel is available at most fabric stores.

Section 5: Part C

SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO GROUT, SPECTRALOCK Grout, LATAPOXY SP-100, and SPECTRALOCK 2000 IG – Installation Procedures

Mixing of SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO GROUT, SPECTRALOCK GROUT and LATAPOXY SP-100:

1. Thoroughly stir contents of “A” hardener and “B” resin bags.
2. Blend entire contents of “A” and “B” liquids thoroughly with clean mixing stick or margin trowel in the clean bucket provided, for one minute.
3. Mix in all Part C powder provided. For easier workability or narrow joints, use 10-15% less powder.
4. Mix by hand with margin trowel or use a slow speed (less than 150 RPM) electric drill mixer until uniform (approximately 3 minutes).
5. Bubbling in the mix indicates an excessively loose mix and more filler powder should be added to reduce bubbling.

Do Not Over Mix. Over mixing can cause air bubbles in grout joints.

See Data Sheet 681.5 for complete installation instructions for SPECTRALOCK PRO Premium Grout

See Data Sheet 685.5 for complete installation instructions for SPECTRALOCK PRO Grout

See Data Sheet 638.5 for complete installation instructions for SPECTRALOCK Grout.

See Data Sheet 631.5INTL for complete installation instructions for LATAPOXY SP-100.

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 LATICRETE 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 5: Part D

SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO Grout, SPECTRALOCK Grout, LATAPOXY SP-100, and SPECTRALOCK 2000 IG – Installation Procedures

Grouting Floors With SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO Grout or SPECTRALOCK Grout:

1. Use standard grouting techniques to work SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO Grout or SPECTRALOCK Grout into grout joints.
2. **BE SURE ALL JOINTS ARE FULLY PACKED!**
3. To ease cleanup, use rubber float at 90° angle to remove as much excess material as soon as possible before initial cleaning with sponge. Wait 20-30 minutes after grouting to allow grout to settle and firm slightly.

Do Not Leave Excess Grout On The Face Of Tiles

Grouting Walls With SPECTRALOCK® PRO Premium Grout, SPECTRALOCK PRO Grout or SPECTRALOCK Grout:

1. Use standard grouting techniques to work SPECTRALOCK® PRO Premium Grout, SPECTRALOCK PRO Grout or SPECTRALOCK Grout into grout joints.
2. If grout sags out of joints during installation, stop immediately and wait an additional 15 minutes for grout to firm up in bucket. You may also add more SPECTRALOCK Part C powder if any was held back.

3. BE SURE ALL JOINTS ARE FULLY PACKED!

4. To ease cleanup, use an epoxy grout float or a standard rubber grout float at a 90° angle to remove as much excess material as possible before initial cleaning with sponge. Wait 20 – 30 minutes after grouting to allow grout to settle and firm slightly.

Grouting With LATAPOXY® SP-100:

1. Immediately pour entire contents of bucket onto working area, and distribute evenly.

2. Use standard grouting techniques to work LATAPOXY SP-100 into grout joints.

3. BE SURE ALL JOINTS ARE FULLY PACKED!

4. To ease cleanup, use rubber float at 90° angle to remove as much excess material as possible before initial cleaning with nylon scrub pad. Excess grout can be removed immediately, but waiting 15-30 minutes after grouting allows grout to settle and firm slightly.

Do Not Leave Excess Grout On Face Of Tiles

Grouting With SPECTRALOCK 2000 IG:

1. Wipe down tile with a damp sponge and allow tile to dry prior to grouting.

2. Grout may remain in the bucket while grouting.

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 5: Part E

SPECTRALOCK PRO Premium Grout, SPECTRALOCK® PRO Grout and SPECTRALOCK Grout, LATAPOXY® SP-100, and SPECTRALOCK 2000 IG – Installation Procedures

Installation Clean-Up of SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO GROUT and SPECTRALOCK Grout:

1. Begin cutting excess grout off tiles, cleaning grout haze 20 – 30 minutes after grouting an area. Use clean water and a damp sponge. Wipe the tile surface in a light circular motion to loosen grout residue and to smooth out the joints.

HINT: Using 1 packet of Cleaning Additive 377 mixed with two gallons clean water will help reduce grout haze residue and prevent sponge from becoming gummed up. Certain tiles clean up more easily than others, so be sure to rinse sponge frequently, checking your work as you progress. Change water and cleaning solution after cleaning every 50 ft² of tile when using multiple units.

2. For vertical joints, if grout sags or runs out of joints during cleanup it may be advisable to use a well wrung folded, white terry cloth towel to remove excess grout while smoothing the joints. Make sure that light pressure is used. Rinse towel frequently and change water and cleaning additive every 50 ft².

3. Begin final cleaning of all areas grouted approximately one hour after initial wash to ensure no grout haze or contaminants (ex. footprints) exist on the tile surface. A solution of 2 gallons of clean water and a packet of Cleaning Additive is recommended to completely remove any residual grout film/haze. Using a well wrung, clean white scrub pad, clean entire tile surface with a light circular motion. Rinse scrub pad frequently. Change water and cleaning solution every 50 ft² (4.6 m²).

4. Next, using a new sponge and clean water, pull across tile to pick up any remaining residue. Rinse the sponge after every pass; USE EACH SIDE ONLY ONCE. Allow installation to dry and inspect for any areas where residual haze remains. If haze is present, repeat step 2 immediately. SPECTRALOCK PRO Premium Grout haze, SPECTRALOCK PRO Grout haze and SPECTRALOCK Grout haze which is allowed to cure on the tile surface may be difficult to remove. Make certain to check the tile surface with adequate lighting after the surface has dried.

Maximum stain resistance is achieved after 7 days @ 70°F (21°C).

Installation Clean-Up of LATAPOXY® SP-100:

1. Cleanup may begin as soon as grout is worked into joints.
2. Each person cleaning should have one bucket of cold water for the white, nylon scrub pad, and another bucket of cold water for the flannel or towel.
3. Use nylon scrub pad soaking wet in vigorous circular motion for initial cleanup. **Use Plenty of Cold Water But Do Not Leave Excess Water or Froth On The Surface or Allow To Flow Into UngROUTed Joints.**
4. For vertical joints, apply water evenly on tile with a bottle sprayer or mister. Then use scrub pad. This will prevent the water soaked pad from dripping on the floor.
5. Use moderately wet flannel or towel to drag surface to remove excess dirty water. Rinse the towel frequently in a clean pail of water.
6. Change the cleaning water frequently - dirty water makes for extra work and can increase the chance of grout haze.
7. **DO NOT OVERWORK JOINTS!**
8. **TO OBTAIN MAXIMUM SMOOTHNESS:**
Approximately 1-2 hours after grouting, grout will begin to stiffen and become like putty. Check finish for smoothness. If rough or uneven, dress the joints with a solution of soapy water (use liquid detergent like Dawn® or Joy®) and a rounded edge sponge or finger. Press lightly.
9. Wash the installation 12-24 hours after grouting using a clear liquid detergent (e.g. Dawn or Joy) to remove haze or residue. **DO NOT ALLOW GROUT FILM TO REMAIN ON SURFACE FOR MORE THAN 24 HOURS.**
10. If stubborn haze remains, see Part G. **Do Not Use Acid Cleaners**
11. **See Time To Service Charts in Section 5 – Part J for each grout.** Keep in mind that the longer you wait before allowing traffic on the floor the better.

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. Do not leave standing water on the grout joints before covering them. Maximum stain and chemical resistance is achieved after 7 days.

Section 5: Part F

SPECTRALOCK® PRO Premium Grout, SPECTRALOCK PRO Grout, SPECTRALOCK Grout, LATAPOXY SP-100, and SPECTRALOCK 2000 IG – Installation Procedures

Removal of SPECTRALOCK® PRO Premium Grout, SPECTRALOCK PRO GROUT haze or SPECTRALOCK Grout haze:

- For grout haze that is less than 48 hours old use straight white vinegar and a white terry cloth towel. Apply white vinegar to terry cloth towel, apply to affected areas and allow to dwell for 5 – 10 minutes. Scrub areas with towel and rinse with clean water and sponge. Repeat as needed for areas with heavy haze.

Note: Do a test area in an inconspicuous area to confirm results before proceeding. Be careful when using vinegar in conjunction with polished marble or similar stone. Do a test area to confirm results.

- For SPECTRALOCK® PRO Premium Grout, SPECTRALOCK PRO Grout or SPECTRALOCK Grout haze that is older than 48 hours try either of the following procedures;

1. Use 1/4 cup (0.06 L) electric dishwasher detergent (e.g. Cascade, Electrosol, etc...). per 3.5 gallons (13.2 L) pail of water. Liberally apply the dishwasher detergent / water solution to the surface with a mop. Then broadcast silica sand or SPECTRALOCK 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.

2. Contact the following manufacturer for their product recommendation for removing epoxy grout haze;

LATICRETE STONETECH® – 1-888-786-6343

Mask off the work area to protect adjacent finished surfaces.

Removal of LATAPOXY SP-100 haze or SPECTRALOCK 2000 IG haze:

- For up to 48 hours after installation - Use 1/4 cup (0.06 L) electric dishwasher detergent (e.g. Cascade, Electrosol, etc...). per 3.5 gallons (13.2 L) 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 48 hours - Use any 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. Do a test area to confirm results.

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

Contact the following manufacturer for their product recommendation for removing epoxy grout haze;

LATICRETE STONETECH – 1-888-786-6343

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

For stubborn film that also includes SPECTRALOCK Grout 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 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.

SPECTRALOCK® PRO Premium Grout, SPECTRALOCK PRO GROUT, SPECTRALOCK Grout, LATAPOXY® SP-100, and SPECTRALOCK 2000 IG – Installation Procedures

Removal Of SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO GROUT, SPECTRALOCK Grout, LATAPOXY SP-100, and 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 nonflammable, 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, 500°F). 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 5: Part H

SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO GROUT, SPECTRALOCK Grout, LATAPOXY SP-100, and 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 PRO Premium Grout, SPECTRALOCK PRO Grout, SPECTRALOCK Grout, LATAPOXY[®] SP-100, and SPECTRALOCK 2000 IG.

- Stain and soil resistant
- Stays uniformly colorfast over time
- Does not need to be sealed and resealed
- Resists exposure to most acids, alkalis and many chemicals
- Will not peel, crack or pulverize
- High strength

SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO GROUT, SPECTRALOCK Grout, LATAPOXY SP-100, and SPECTRALOCK 2000 IG are 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 plastic sheeting 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.

SPECTRALOCK® PRO Premium Grout, SPECTRALOCK PRO Grout and SPECTRALOCK Grout reach maximum hardness in 14 days and maximum stain resistance in 7 days @ 70°F (21°C). LATAPOXY® SP-100 needs approximately 10 days at 70°F (21°C) to reach maximum hardness, chemical, steam and stain resistance.

2. ROUTINE MAINTENANCE OF LATICRETE GROUTS: SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO Grout, SPECTRALOCK Grout, LATAPOXY SP-100, and SPECTRALOCK 2000 IG. SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO Grout, SPECTRALOCK Grout, LATAPOXY SP-100 and SPECTRALOCK 2000 IG are stain resistant when properly installed and allowed to cure properly. They are, unfortunately, not self-cleaning. Routine maintenance can be done with 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, etc. installation, test a discrete area or scrap piece of tile to insure desired results.

3. Commercial Maintenance of LATAPOXY SP-100

LATAPOXY SP-100 (limitation of product is 250°F (110°C) and SPECTRALOCK 2000 IG can be steam cleaned when allowed to reach full cure (see time to traffic charts in Section 7, Part J). Mechanical cleaning can also be done with a floor cleaning machine such as a “Tennant” floor machine or power buffing machine with nylon pads and a commercial tile cleaner. A “Grout Hog” which is basically a motorized brush for fast aggressive cleaning may also be used.

Tennant Company Grout Hog Floor Cleaner
701 North Lilac Drive
Minneapolis, MN 55440
(612) 540-1200

Windsor Industries
1351 West Stanford Avenue
Englewood, CO 80110
(303) 762-1800

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 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.

Section 5: Part J

SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO Grout, SPECTRALOCK Grout and LATAPOXY SP-100 - INSTALLATION PROCEDURES

SPECTRALOCK PRO Premium Grout, SPECTRALOCK PRO Grout and SPECTRALOCK Grout TIME TO SERVICE @ 70°F (21°C)

Working Time: 80 Minutes

Tack Free: 4 Hours

Ready for Light Foot Traffic: 12 hours

Ready for Heavy Foot Traffic: 24 hours

Stain Resistance, Food Spills, and Household Cleaners: 7 days

Full Cure: 14 days

Notes:

- The temperature of the surface determines the working and cure time of all grouts.
- Concrete floors on grade may be substantially cooler than room temperature.
- For temperatures below 60°F (10°C), or for faster cure above 60°F (10°C), use SPECTRALOCK 2000 IG.

SPECTRALOCK 2000 IG TIME TO SERVICE @ 70°F (21°C)

Working Time: 80 Minutes

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

| Floor Temperature | Time To Light Traffic | Time To Heavy Traffic | Full Cure |
|-------------------|-----------------------|-----------------------|-----------|
| 50°F (10°C) | 20 Hours | 32 Hours | 8-10 Days |
| 60°F (16°C) | 11 Hours | 24 Hours | 7 Days |
| 70°F (21°C) | 5 Hours | 10 Hours | 7 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. Residential - Kitchens, bathrooms and foyers
2. Light Traffic - Normal residential foot traffic
3. Moderate Traffic - commercial and light institutional use in public space of restaurants and hospitals
4. Heavy Traffic - Shopping malls, stores, work areas, laboratories, auto showrooms and service areas, shipping/receiving, and exterior decks
5. Extra Heavy - Heavy and high impact use in food plants, dairies, breweries, and commercial kitchens. Requires quarry tile, packing house tile, or tile designated by tile manufacturer

Section 6: Part A

PLASMA™ Grout – Installation Procedures

Storage:

1. Store materials at room temperature 70°F (21°C). To facilitate installation apply material at room temperature 70°F (21°C).
2. Cold product and/or surface temperatures may have an impact on workability.

Section 6: Part B

PLASMA Grout – Installation Procedures

Prior To Grouting:

1. **Read ALL instructions BEFORE proceeding. Follow directions as written.**
2. Use plenty of thin-set and install tile/stone 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 and spacers 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 buckets of PLASMA are all the same batch number. Minor shade variations may occur from batch to batch. Manufacturer is not responsible for different batches being used on same job.

PROPER TOOLS REQUIRED

6. Clean bucket (provided with each full unit) and a clean margin trowel for mixing.
7. Clean rubber grout float.
8. Clean closed cell sponge and clean bucket of potable water for first wash.
9. White microfiber towel for use in “dragging” for cleanup of PLASMA, and/or a closed cell sponge for final cleanup of PLASMA and touch ups.
10. Apply STONETECH® Grout Release or a suitable STONETECH sealer if necessary.

Section 6: Part C

PLASMA – Installation Procedures

Grouting Floors With PLASMA:

1. Use standard grouting techniques to work PLASMA™ Grout into the floor grout joints.
2. BE SURE ALL JOINTS ARE FULLY PACKED!
3. To ease cleanup, use rubber float at 90° angle to remove as much excess material as soon as possible before initial cleaning with sponge. Wait 5 – 10 minutes (no more than 15 minutes) from beginning of PLASMA installation to begin initial cleaning.

Do Not Leave Excess PLASMA On The Face Of Tiles

Section 6: Part D

Grouting Walls With PLASMA:

1. Use standard grouting techniques to work PLASMA into the floor grout joints.
2. BE SURE ALL JOINTS ARE FULLY PACKED!
3. To ease cleanup, use rubber float at 90° angle to remove as much excess material as soon as possible before initial cleaning with sponge. Wait 5 – 10 minutes waiting no longer than 15 minutes from beginning of PLASMA installation to begin initial cleaning.

Do Not Leave Excess PLASMA On The Face Of Tiles

Section 6: Part E

PLASMA Grout – Installation Procedures

Installation Clean-Up of PLASMA:

1. Begin initial cleaning within 5 – 10 minutes of beginning of application, waiting no longer than 10 minutes from beginning of application. PLASMA is ready for initial cleaning once a dry film begins to appear. PLASMA requires little water to clean.
2. Use a damp grout sponge (wrung dry) to clean excess grout residue using light pressure and a circular motion.
3. Follow by dragging a damp sponge or microfiber towel over the cleaned area, diagonally to the joints, to remove any remaining residue.
4. Change water when it becomes dirty/milky, at least every bucket of grout.

Important: Do not allow water to sit on grout surface. Excessive water used during cleanup can interfere with product curing.

Final Clean-Up of PLASMA:

1. Allow to dry and inspect. If a minor haze is present after initial cleaning, wait until second cleaning to address residual haze.
2. Wait approximately 3 hours in warmer temperature (>70°F/21°C) low humidity environments and 6 hours in cooler temperatures (<70°F/21°C) high humidity environments.
3. When the grout joints are firm, use a damp, well wrung sponge and clean water to remove remaining grout haze.
4. Use a damp sponge or microfiber towel to remove any cleaner or water and finish by drying the tile surface with a clean microfiber towel or cloth.

Note: Use caution when polishing soft glazed tile or polished stone.

Section 6: Part F

PLASMA – Installation Procedures

Removal of PLASMA haze:

1. Any haze remaining up to 48 hours after the second cleaning can be removed using a white scrub pad with isopropyl alcohol (rubbing alcohol) or a household cleaner such as Windex® being careful not to touch the grout joints.
2. Use a damp sponge or microfiber towel to remove any cleaner or water and finish by drying the tile surface with a clean microfiber towel or cloth.

Important: Test any cleaners in an inconspicuous area when removing PLASMA™ haze from polished marble, polished travertine, limestone and other stone types/finishes which may be affected by acid etching or chemical exposure.

Section 6: Part G

Removal of PLASMA 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

1. This method is fast; but great care must be taken to avoid damage to tile surface and edges.
2. 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.
3. Proper re-grouting depth is approximately ½ the depth of the existing joints.

Section 6: Part H

PLASMA – Protection After Installation

Protect grouted areas from light foot traffic and other trades for at least 24 hours at 70°F (21°C) after installation. Protect grouted areas from heavy foot traffic for at least 72 hours at 70°F (21°C) after installation. For areas that must have traffic during the above mentioned curing times, cover installation with plastic sheeting and plywood or other temporary load bearing course. PLASMA reaches maximum stain resistance in 7 days at 70°F (21°C) so protect from food spills, dirt and household cleaners. Please note that temperatures lower than 70°F (21°C) will require protection from traffic for a longer period of time. PLASMA reaches maximum hardness in 28 days and maximum stain resistance in 7 days @ 70°F (21°C). Wait a minimum of 3 days at 70°F (21°C) before exposing to water.

Notes:

- The temperature of the surface determines the working and cure time of all grouts.
- Concrete floors on grade may be substantially cooler than room temperature.
- For temperatures below 60°F (10°C), or for faster cure above 60°F (10°C), use SPECTRALOCK® 2000 IG.

Section 6: Part I

PLASMA - Maintenance Guide:

NOTE: Like all LATICRETE grouts and sealants, PLASMA requires 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: PLASMA.

- Easy to use
- No mixing required
- Non-pigmented
- Stain resistant
- Inhibits the growth of stain-causing mold and mildew in the grout joints
- Uniform color
- Easy to maintain
- Tough and durable
- Non-sag formula for floors and walls

2. **ROUTINE MAINTENANCE PLASMA GROUT:** PLASMA is stain-resistant when properly installed and allowed to cure properly. PLASMA is, unfortunately, not self-cleaning. Routine maintenance can be done with 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, etc. installation, test a discrete area or scrap piece of tile to insure desired results.

* United States Patent No.: 6,881,768 (and other patents)

^ United States Patent No.: 6,784,229 (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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