

## Tech Tuesday Stone and Tile Articles – a series

**Part 2 of Stone and Tile Articles****Types of grout**

The most common grout used for man-made tiles is **sanded grout**. This is a blend of Portland cement and sand. You can feel the presence of the sand to help identify this type of grout. The width of the grout line also aids in identifying the type of grout. Normally sanded grout is used when grout lines are 3/16" or wider. Sanded grout is appropriate for ceramic tile. It should not be used on stone floors, although it occasionally shows up there due to inexperienced installers. If you encounter sanded grout on a stone floor – BE CAUTIOUS! Sand can scratch most stone and play havoc on a polishing job.

**Unsanded grout** is also made from cement but without the sand. It is great for natural stone flooring. There are two reasons for this. First particles of sand from grout could scratch and abrade stone surfaces. Second, the unsanded grout is better suited to filling narrow grout lines in stone installations.

**Epoxy grout**, although not common, resists staining and soil. It can be identified by a plastic like appearance that is frequently rounded on top. NOTE: Cementitious grout with epoxy added will also resist staining and be easier to clean but it is not the same as 100% epoxy grout.

Other types of grout such as Furan may be used in specialty situations such as counters where food is prepared. These specialty grouts clean up very well, but unfortunately, you won't see them very often.

Grouts may contain additives to provide color, make cleaning easier or extend the life of the grout. Your initial inspection of a job should include examining the grout. Cracks may be present due to movement of the substrate, installation and mixing issues or rarely the quality of the grout itself.

Sections of grout that have broken loose due to these cracks can be blasted out by high pressure cleaning and vacuum. Clients should be advised of this possibility.

**Basic Cleaning Procedures for Stone, Tile & Grout****Preventive Maintenance**

Regular use of walk off mats reduces tracking of soils from outside. Mats can remove abrasive grit from shoes that is especially harmful to most stone surfaces. Regular sweeping, vacuuming or dust mopping of the floor is important to remove sand and other particles soils off the floor should it get past the mats.

**Routine Daily or Periodic Maintenance for Tile and Stone**

1. Sweep or vacuum floor to remove particle soils. An untreated microfiber dust mop is suggested.
2. Mix **Spinergy Vivid Stone & Tile Cleaner** at 2 to 4 ounces per gallon. Terrazzo and ceramic tile. Vivid Stone & Tile Cleaner does not contain any of the chelating agents commonly found in off the shelf consumer products or products meant only for tile. Chelating agents help soften water by binding to and separating minerals found in hard water. An issue arises because the chelating agents don't know the difference between calcium in the hard water and calcium that is part of the stone. They can be more difficult to rinse from stone and can leave the floor cloudy with repeated use. Options from Stone Pro: Pro Clean – Neutral No-Rinse Cleaner for Stone or Crystal Clean – Daily Use Neutral Cleaner which includes a small amount of sealer that give the surface ongoing protection. Available in Ready to Use spray or concentrated versions
3. Apply with electric or pump-up sprayer or mop if preferred. A microfiber mop or a rayon mop with looped ends and sewn tail band is suggested.
4. Allow solution 2 - 3 minutes dwell time
5. For best results, heavily soiled areas may be agitated with grout brush or other tool but this is seldom necessary with regular maintenance.
6. Extract cleaning solution and soil with wet vacuum or clean mop. If mop is used, change your mop water often to make sure that soil is not redeposited.

**Restorative Cleaning for Tile and Stone Floors and Walls**

Used for heavier build-up of soil, especially greasy or oily soils, when more than routine cleaning is required. Wear appropriate protective equipment when handling concentrated cleaning agents. Be sure your work area is well ventilated. Keep children and pets out of the work area until the floor has dried.

1. Sweep or vacuum floor to remove particle soils.

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Gritty soils left on the floor can scratch stone surfaces. An untreated microfiber dust mop is suggested.

2. Protect surfaces not being cleaned so that they are not damaged by splashes or spills. It does not take much liquid under an MDF baseboard to do permanent damage.
3. Mix **Spinergy Stone Perfect** according to label directions. Dilution can be adjusted according to the level of soiling. Use hot or warm water if available. You can also use Stone Pro's Deep Clean – Heavy Duty Stone, Tile and Grout Cleaner. Dilution rate: 9:1.



4. Apply evenly and liberally using an electric or pump-up sprayer or mop. Allow several minutes dwell time, but do not allow solution to dry on the floor. If using mop, change cleaning solution frequently to be sure soil is not redeposited.
5. Grout lines may need to be agitated with a grout brush
6. Use SX-12 or SX-15 with brush bottom to agitate, rinse and extract dirty solution all in one step. The SX-7 or the Gekko line of accessories will be helpful when cleaning countertops, walls, along edges and in tight places. For sensitive surfaces use the Hydro-Force Gekko tool with brush or squeegee head.
7. After the floor has dried, proceed to instructions for sealing and protecting the surface.



## Acid Cleaning for Tile & Grout

**CAUTION!** This process should not be used on any stone floors containing calcium. Acids can etch limestone, travertine, marble, terrazzo and any stone containing calcium. Acid cleaning is mainly for ceramic tile.

Acid cleaning removes mineral deposits, soap scum, hard water deposits, urine stains, efflorescence and rust. It can also remove other stubborn stains from grout because it actually removing a microscopic layer of the grout. Acid cleaning is most effective when it follows restorative cleaning with an alkaline cleaner. Repeated use of acid cleaning or leaving an acid cleaning on the floor without rinsing or neutralizing will soften grout over time.

1. Sweep or vacuum floor to remove particle soils. An untreated microfiber dust mop is suggested.
2. Protect surfaces not being cleaned so that they are not damaged by splashes or spills. Metal surfaces, especially stainless steel may be etched by contact with acid solution.
3. Mix **Viper Renew or Spinergy Resuscitate Restorative Tile & Grout Cleaner** following label directions. Dilution can be adjusted for lighter soiling. Apply with clean mop, sponge, towel or sprayer. Avoid getting the solution on unintended surfaces. Allow several minutes dwell time, but do not allow solution to dry on the floor.
4. Agitate solution as needed with a grout brush to assist the cleaning process.
5. Use SX-12 to agitate, rinse and extract dirty solution all in one step. The SX-7 or the Gekko line of accessories will be helpful when cleaning countertops, walls, along edges and in tight places. Solution can

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also be removed with wet vac, mop or sponge.

- For grout lines, spray on a solution of **Viper Venom liquid, Viper Venom Powder** or **Spinergy Stone Perfect** diluted at 1 to 32. This step is important to neutralize acid residues. If either cleaning solution gets on a metal surface, immediately rinse with clean water and wipe dry.



- After the floor has dried, proceed to instructions for sealing and protecting the surface.

## Maintenance for Countertops

A safe, gentle process for removing everyday soil and grime while also protecting the surface and rejuvenating and preserving the high shine.

- Spray the surface with a **Spinergy Vivid** mixed according to label directions.
- Wipe and clean the surface with a clean, white cotton cloth.
- Buff to a high shine with a clean dry cloth.

**STONEPRO** Maintenance choices:

**Crystal Clean** – Daily Use neutral cleaner which includes a small amount of sealer to give the surface ongoing protection.

**Finishing Touch Spray Polish** - 3 in 1 product to Clean, Polish and Protect natural stone and quartz countertops. Works great on stainless steel appliances too.

## Sealing Procedures

All stone, grout and porous tile should be sealed using an impregnating sealer to protect the surfaces while

preserving the natural appearance. Porcelain tile will not absorb sealer. Most ceramic tile has a glazed top surface and will not accept sealer. The sealer will simply dry on the surface and leave a haze.

- If floor has been subjected to traffic since cleaning, sweep or vacuum the floor to remove particle soils.
- Protect surfaces not being sealed.
- Apply an even coat of **Spinergy Solidrock Premium Stone & Grout Sealer** using a slightly damp rayon mop, a roller or sprayer. To bring out the natural colors of stone, especially slate, and provide a “wet look” shine, seal with **Spinergy Revive Color Enhancer and Sealer**. For porcelain, glazed ceramic or other non-porous tiles, apply **Solidrock Premium Stone & Grout Sealer** to the grout lines only. If efflorescence is a possibility, **Spinergy Duraprotect** Impregnating Stone & Grout Sealer uses a solvent base to resist efflorescence while providing a high level of protection against common household food and beverage spills along with other stains and soil. There are a variety of tools to help you seal any floor. Grout Stick is designed for applying solvent based sealer to the grout lines. Any sealer that gets on the tile should be wiped off before it dries. For large areas of tile, spread the sealer using a clean moss rubber squeegee. When the seal has completely dried, this can be followed by a rotary floor machine fitted with a white pad. This will remove excess sealer while helping and polish the surface.
- An optional second coat may be applied to porous stone after the first coat has dried. **STONEPRO** premium sealers are designed based on stone density. Sealer for Granite for example, needs a smaller molecular structure than travertine. More porous stone needs a larger molecular structure to fill the larger voids without using excessive amounts of sealer. To get maximum penetration and protection, selecting the right sealer this way gets you the longest lasting and best protection.
  - Ultimate Pro** – dense surface
  - Porous Pro** – porous surface
 For more economic options Stone Pro’s VOC compliant solvent Pro Sealer and water-based Aqua Pro will work well. SafeGuard H2O is our tile and grout sealer that is even more economical.

-Scott Warrington