

Cleaning and Maintenance of Tile and Stone

Initial Cleaning and Maintenance

- The most important step for future daily maintenance is to completely remove all grout and construction dirt after the tile has been installed. Grout manufacturers print instructions for proper mixing, curing, and cleaning of grout on each container. These directions should be followed. In most cases, tiles can be cleaned successfully by scrubbing the installation with hot water and detergent, followed by a thorough rinsing, then removing the rinse water with a wet vacuum or dry toweling. If grout residue still remains, use a grout residue removal product recommended by the grout manufacturer.

Some grout manufacturers distribute products which they recommend for the removal of their particular grout from the surface of tile. These products can be diluted for removal of light deposits of grouting materials with the possibility of using stronger concentrations when more aggressive cleaning is required.

For more aggressive cleaning, floor scrubbers or floor buffing machines equipped with a nylon pad or brush are recommended. A wet vacuum should be used to pick up suspended grout residue and construction dirt completely.

Acid washing is rarely recommended, and is not usually necessary to successfully clean a new installation if the cleaning is done in a timely fashion. Caution should be exercised when using acid, or acid-based cleaners as they can adversely affect the grout.

If a customer insists on use of an acid for cleaning the installation, they should be cautioned to use sulfamic acid or phosphoric acid mixed in a solution according to manufacturers' instructions. It is important that before the acid solution is placed on the floor, the grout joint be thoroughly saturated with water first. Grouts which contain latex can actually bond more strongly to the tile surfaces if cleaned with acid. Latex or polymer modified grouts should be cleaned with a solution recommended by the grout manufacturer. Contractors or installers should also wait until the grout joint has fully cured, usually 14 to 21 days before using acidic cleaners.

Once the initial cleaning has been thoroughly completed, see the **Daily Maintenance** procedures below. Regular care and maintenance will help keep tiled surfaces looking their very best.

Special Grouting Situations

- Before grouting any products, regardless of whatever grout color is chosen, we strongly recommend that a test patch be done by the contractor to determine if the grout pigment will contaminate the surface of the tile. Special care and testing should be done when light-colored tiles are to be grouted with a contrasting dark-colored grout. If no grout discoloration occurs, the contractor can proceed with grouting, taking care to follow recommended manufacturer procedures. If the grout pigment discolors the surface of the tile, we recommend that the tile be treated with a grout release agent before grouting.

Tiles with a heavily textured surface will benefit from the use of a grout release. A grout release will improve the cleanability of the grout from the surface of the tile.

To prevent possible contamination of the surface, the procedures outlined below should be followed:

1. Prior to grouting, apply the grout release in accordance with the manufacturer's

recommendations. This can be done in one or two coats. If more than one coat is applied, allow 45-60 minutes of dry time between coats.

2. Wait 45-60 minutes after applying the grout release before installing the grout, followed by normal cleaning of the excess grout from the surface of the tile.

3. Approximately 72 hours after the grout achieves its final set, clean the floor with a solution recommended by the grout release manufacturer.

Of course, these are general recommendations. Any specific recommendations suggested by the individual manufacturers should be followed.

Penetrating Sealers

- If polished tiles are used in areas which are prone to excessive spills or are light in color and are installed with a dark-colored grout, use of a penetrating-type sealer may be desirable prior to grouting. A penetrating sealer is one that does not leave a coating on top of the tile. Rather, these sealers assist in filling the microscopic surface pores.

The grinding involved in the polishing process produces microscopic surface pores on all polished tile products. Penetrating sealers can fill these pores, making the tile even more impervious to surface staining, resulting in easier maintenance. Penetrating sealers do not alter the appearance of any product since they are designed only to fill the microscopic pores and not to coat the tile. Slip resistance also should not be affected.

Proper application of penetrating sealers is important. Follow the manufacturer's application guidelines. If you have questions prior to application, contact the manufacturer directly. The following is a suggested application procedure for a penetrating sealer:

1. Surface must be thoroughly clean and free of any foreign matter that may prevent the sealer from penetrating.
2. Apply in a circular motion using a dense sponge, working sealer tightly into tile surface.
3. One thin application should be sufficient.
4. Completely remove excess sealer from the surface within 3 to 4 minutes using a clean cotton cloth, rag or absorbent paper towels. Penetrating-type sealers must not be allowed to dry on tile surface.

Penetrating sealers are applied only once, and generally do not require constant maintenance through reapplication.

Top Finishes and Waxes

- Porcelains dense, low-absorptive, body inhibits the penetration of contaminants and, therefore, is a tile that is easy to maintain. The low-absorptive nature of porcelain tile not only inhibits dirt and stains, but also prevents top-finishes and most chemicals from penetrating the surface.

Top finishes, those that become a coating over the tile and grout joints, are not recommended for porcelain tile. They will change the appearance of the tile by coating the surface and giving matte-finished tiles a shiny finish. When a particular type of tile is selected for the coefficient of friction values, the values can be changed by the application of the finish. Rather than improving the ability to maintain the surface, top finishes will increase the maintenance requirement. Top-coating finishes also will show traffic patterns as the finish becomes scratched or wears away. Some finishes may even peel off in spots.

Problems most frequently encountered with the use of top-coating finishes are:

1. Wear patterns are easily developed over time.
2. Finish applied to a floor which has not been properly cleaned will cause the floor to look hazy.
3. Finishes applied to textured surfaces will wear unevenly on the raised areas as compared to the low areas.
4. Improperly applied finishes can turn a milky-white color.
5. Multiple coats of top finish can cause discoloration of the tile surface.

When problems such as these occur, the finish must be stripped off of the tile and a new coat of finish re-applied. This is a costly and unnecessarily repetitive procedure.

Proper Care During Construction

- Tile products are considered to be a finished material and should not be installed until all heavy construction is completed.

In between the installation and putting the floor into service, it is crucial to properly protect the tile and grout in order to avoid construction-related cleaning problems. Generally, there is a build-up of dirt and debris on every construction site. This dirt and debris may cause the grout, and sometimes the tile, to be adversely affected.

It is recommended to use a protective cover over the tile surface to safeguard the appearance. Kraft paper, cardboard, plywood, or any other covering that will not damage the integrity of the installation can be used. Do not use plastic as it may not allow the grout and thin-set to properly cure, and it also may become extremely slippery as construction dust settles. Proper and diligent care must be used to maintain the protective cover during construction. This will insure a quality appearance when the floor is opened for continuous use.

Daily Maintenance

- General maintenance and cleaning of tile will vary depending on the surface texture and soil load. Sweeping or vacuuming to remove loose soil or other surface contaminants should be done first then followed by mopping with a slightly damp mop and clean water.

Depending on the soil load, a more aggressive cleaning process may be required. Use a neutral cleaner or a general household cleaner, followed with a thorough rinsing. Refer to the **Cleaning Chart** below for suggested cleaners.

There are five steps that are essential and should always be remembered for the successful maintenance of tile:

1. All spills should be cleaned as quickly as possible.
2. Use only the recommended dilution of detergent. More is not always better; higher concentrations of detergent in the cleaning solution will only make it more difficult to rinse.
3. Allow the proper dwell (remain on the floor) time. The detergent solution must be given time to act on the soil load. Generally 5-10 minutes is sufficient.
4. Scrub with a nylon pad or bristle brush.
5. Rinse thoroughly with clean, clear water to remove the dirty detergent solution and soil. Rinsing is an important step in the maintenance procedure. Remove the rinse water with a wet vacuum, dry mop or toweling. If dirty detergent solution is not removed and is allowed to dry on the surface, a coating will form which is very difficult to remove.

Cleaning Chart

	STAIN	MIRACLE CLEANER	FILA CLEANER
FOOD GROUPS	MUSTARD	PORCELAIN & CERAMIC TILE CLEANER	FILA SR / 95
	KETCHUP	PORCELAIN & CERAMIC TILE CLEANER	FILA SR / 95
	MAYONNAISE	PORCELAIN & CERAMIC TILE CLEANER	FILA SR / 95
	TEA BAGS	PORCELAIN & CERAMIC TILE CLEANER	FILA SR / 95
	ICE CREAM	PORCELAIN & CERAMIC TILE CLEANER	FILA SR / 95
	BEER/WINE	PORCELAIN & CERAMIC TILE CLEANER	FILA SR / 95
	ORANGE JUICE	PORCELAIN & CERAMIC TILE CLEANER	FILA SR / 95
	GRAPE JUICE	PORCELAIN & CERAMIC TILE CLEANER	FILA SR / 95
	COFFEE	PORCELAIN & CERAMIC TILE CLEANER	FILA SR / 95
	COKE	PORCELAIN & CERAMIC TILE CLEANER	FILA SR / 95
	SOY SAUCE	PORCELAIN & CERAMIC TILE CLEANER	FILA SR / 95
OIL & GREASE	VEGETABLE	PORCELAIN & CERAMIC TILE CLEANER	FILA NO SPOT
	MINERAL	PORCELAIN & CERAMIC TILE CLEANER	FILA NO SPOT
	PETROLEUM	PORCELAIN & CERAMIC TILE CLEANER	FILA NO SPOT
	WAX SEALER	PORCELAIN & CERAMIC TILE CLEANER	FILA PS/87
	MEAT GREASE	PORCELAIN & CERAMIC TILE CLEANER	FILA NO SPOT
	HYDROLIC OIL	PORCELAIN & CERAMIC TILE CLEANER	FILA NO SPOT
	TRANS. FLUID	PORCELAIN & CERAMIC TILE CLEANER	FILA NO SPOT
	LINSEED OIL	PORCELAIN & CERAMIC TILE CLEANER	FILA SOLV
	LIPSTICK	PORCELAIN & CERAMIC TILE CLEANER	FILA SR/95
	RUBBER	PORCELAIN & CERAMIC TILE CLEANER	FILA PS/87
	SHOE POLISH	PORCELAIN & CERAMIC TILE CLEANER	FILA PS/87
PAINT (OIL BASE)	PORCELAIN & CERAMIC TILE CLEANER	FILA NO PAINT STAR	
MARKERS/GRAFFITI	FELT TIP	PORCELAIN & CERAMIC TILE CLEANER	FILA PS/87 – FILA SR/95
	INK	PORCELAIN & CERAMIC TILE CLEANER	FILA PS/87 – FILA SR/95
	WATER MARKER	PORCELAIN & CERAMIC TILE CLEANER	FILA PS/87 – FILA SR/95
	PERMANENT	PORCELAIN & CERAMIC TILE CLEANER	FILA PS/87 – FILA SR/95
	FLOURESCENT	PORCELAIN & CERAMIC TILE CLEANER	FILA PS/87 – FILA SR/95
	CRAYON	PORCELAIN & CERAMIC TILE CLEANER	FILA PS/87 – FILA SR/95
WATER BASED AGENTS	WATER BASE PAINT	PORCELAIN & CERAMIC TILE CLEANER	FILA PS/87
	WATER BASE STAIN	PORCELAIN & CERAMIC TILE CLEANER	FILA NO PAINT STAR
TILE GROUT	CEMENT	GFCR	DETERDEK
	LATEX OR POLYMER	GFCR	DETERDEK
	EPOXY	EPOXY GROUT FILM REMOVER	FILA PS/87