

## TILE - CARE AND MAINTENANCE

### **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 ensure a quality appearance when the floor is opened for continuous use.

### **After Installation:**

- Remove all grout and construction dirt after the tile has been installed. Find instructions for cleaning grout on the grout container. In most cases, grout can be scrubbed off with hot water and detergent, followed by a thorough rinse with water. Dry with a wet vacuum or dry towel.
- If grout residue remains, use a grout residue removal product recommended by the grout manufacturer. These products can be diluted for removing light deposits of grouting materials, while stronger concentrations can be used 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 you do use an acid for cleaning the installation, 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. 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:

- Cementitious grouts should be sealed after installation. A penetrating/impregnating sealer that does not contain silicone is effective in grout's resistance to spills, stains and moisture absorption and can help it retain its original color better and decrease maintenance. Sealers should be reapplied regularly to grout (glazed tile does not need to be sealed). Some sealers will last several years (see product information, and warranties) but frequency will also depend on traffic patterns and maintenance routines. Grout should be sealed 72 hours after installation.
- Epoxy grout is chemically cured and doesn't require the sealers that cementitious grouts do. They are naturally resistant to spills, stains and moisture.
- If polished tiles are used in areas that are prone to excessive spills or are light in color and are installed with a dark-colored grout, you may want to use a penetrating-type sealer prior to grouting. A penetrating sealer does not leave a coating on top of the tile, rather it will assist in filling the microscopic surface pores produced from the grinding involved in the polishing process.
- 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, and contact the manufacturer directly if you have questions prior to application.

- 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:**

- Porcelain's 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 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 will also 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.

### **Daily Maintenance:**

- Regular, basic cleaning with warm water and mild soap is sufficient to keep floors looking good. You can also use gentle, everyday multipurpose spray cleaner to remove soap scum, hard water deposits, and mildew. Do not use cleaning products that contain acids or ammonia (and other harsh chemicals)

as these can damage grout and glazed surfaces of the tile. Choose products that are compatible with your grout to avoid damage or discoloration of the grout. Always dry your porcelain thoroughly after cleaning.

- Unglazed tile should be cleaned routinely with concentrated tile cleaners that have a neutral pH. These cleaners are better suited for removing grease, oils and normal spills from unglazed products.
- 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. 5-10 minutes is usually 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.
- Grout needs to be cleaned on a periodic basis to remove any surface buildup. Routine grout cleaning can be done with a daily concentrated household or commercial cleaner depending on the application. When heavy-duty grout cleaning is required, you will need to use a professional strength tile and grout cleaner that is capable of removing grease, soap scum, oils, mildew stains, algae, and synthetic or acrylic waxes from the grout joints. Select a product that does not contain polluting chemicals and is low VOC. This type of product can be purchased from most home centers, or through your local, professional floor covering dealer. You might also consider professional grout cleaning companies.
- When grout has been stained to the point that it cannot be maintained or returned to its natural color, you can use a "grout stain." Grout stains are epoxy-based products that are specifically designed to penetrate into the grout and seal the surface with a permanent color. Once the grout has been stained there is no need to seal it any further with a penetrating/impregnating sealer. Prior to staining, the grout joint should be cleaned thoroughly to remove any dirt, oils, grease or sealers with a

professional strength tile and grout cleaner. This can be purchased from most home centers or through your local professional floor covering dealer.

## Preventing Stains and Scratches:

- Porcelain is resistant to scratches, etching and stains, however it is not damage proof. Take care to avoid exposing porcelain to permanent inks or dyes, as these might not be removable. If porcelain surfaces are exposed to permanent marker or dye, rinse the area with water as soon as possible then apply an approved cleaning product. Rinse and dry thoroughly.
- The same caution should be taken with juice, wine, coffee and other food. It is best to wipe up spills immediately to prevent possible stains.
- When chopping vegetables, slicing bread or preparing other foods with sharp utensils on a porcelain countertop, use a cutting board. Use cleaning products and implements that are non-abrasive. Additionally, sweep or vacuum tile prior to cleaning to remove dust or debris.

## Cleaning Chart:

	STAIN	MIRACLE CLEANER	FILA CLEANER
<b>FOOD GROUPS</b>	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	
<b>OIL &amp; GREASE</b>	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	
<b>MARKERS/GRAFFITI</b>	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
<b>WATER BASED AGENTS</b>	WATER BASE PAINT	PORCELAIN & CERAMIC TILE CLEANER	FILA PS/87
	WATER BASE STAIN	PORCELAIN & CERAMIC TILE CLEANER	FILA NO PAINT STAR
<b>TILE GROUT</b>	CEMENT	GFCR	DETERDEK
	LATEX OR POLYMER	GFCR	DETERDEK
	EPOXY	EPOXY GROUT FILM REMOVER	FILA PS/87

**Disclaimer:**

Pental Surfaces does not manufacture or install tile or cleaning products. The information provided here is meant as an information source only. To obtain proper handling, application and safety instructions, contact the manufacturer prior to usage. The products described in this document may have chemicals that cause reactions to certain individuals. We strongly recommend using safety glasses, masks, and gloves when handling any materials that may contain chemicals.