



Technical Manual

Preparation of Sub-Floor

Substrate shall be furnished clean, dry, smooth, leveled to a tolerance of no less than 1/8" in 10'0" (3mm in 3m). Curing compounds, sealers and all existing mastics must be removed. Substrate should comply with appropriate standards. Use membrane system or equivalent moisture control where necessary. Joints, construction seams, or other irregularities should be filled with quality patching materials meeting industry standards. All contaminants such as grease, wax, oil, sealers, curing materials and old adhesives must be completely removed. Expansion joints must be provided as per specifications and materials detailed by appropriate Standards.

All concrete substrates must be scoured or shot-blasted prior to installation (patching or leveling materials included) to loosen dirt and remove weak surface layer and to reveal any cracking that may exist in the sub-floor.

All dust must be removed by sweeping and/or vacuum as required. Absorbent surfaces shall be primed prior to commencement of tiling.

Important Notes: An uneven sub-floor may result in lipping of tiles; a poorly prepared sub-floor may result in delamination and "drumminess".

All sub-floors / pavements move and provision must be made at the time of installation to allow for this movement otherwise the floor tiles and/or the joints will crack and grouting become loose.

We suggest specifiers include our appropriate cleaning and maintenance routine for all types of situations from food areas to low traffic residential.

Installation – Large Format Tiles

1. **Tiles are not sealed and therefore we recommend sealing with a Silane Siloxane or an AQUAMIX penetrating sealer.**
2. Use a cement based adhesive suitable for LARGE format tiles. Follow adhesive manufacturer's instructions. Touchstone tiles are

not intended for installation methods using large quantities of water.

3. Take care that the back of the tiles are free from dust prior to installation. Apply the adhesive with a notched trowel using a scraping motion to work the material into good contact with the surface to be covered. Use a trowel with notches of 5/16" – 5/8" (8 to 15mm)* and/or as per manufacturer's instructions applying only as much adhesive as can be covered with tiles within 20 to 30 minutes or while the surface is still sticky. When installing Touchstone Tiles, a small quantity of the adhesive is trowelled or scraped (back-buttered) onto the back of each piece. The tile is then set in to ensure 100% full bedding and a true surface. Tiles are aligned to show uniform joints and then allowed to set until firm.
4. *The thickness of the adhesive bed will compress down to approx. 1/4" (5 – 6mm).
5. Clean excess adhesive from the surface with a damp cloth or sponge while it is fresh. Avoid excess water in clean-up.
6. After tiles are laid, cover immediately with plastic to avoid differential drying.
7. Allow two to three days after tiles are laid before grouting of joints. Once grout has been applied and starts to dry, excess grout must be removed immediately. Remove excess grout with a stiff damp sponge, cleaning the sponge frequently. Avoid excess water in the clean up, as it will weaken the joint. *Do not use a harsh chemical (e.g. acid or vinegar) for clean up.* For best results use a grout as specified by the adhesive suppliers.
8. Grout joints width should be according to architect's specifications. Grout to approved methods. Joints should be full and free of all voids and pits. Excess grout should be cleaned away and clean floor protected from traffic, (cover with hardboard or equivalent material and keep dry) for appropriate period after installation and grouting. *Do not fix duct tape, gaffer tape or other acidic tapes directly on to tile surfaces.*

Tolerances:

Flatness \pm 1.5 mm

Thickness \pm 1 mm

Squareness \pm 1 mm on diagonals

Note: 120cm x 120cm tiles are 22mm thick while 120cm x 60cm tiles are 20mm due to different calibrating methods.

Expansion and Control Joints

1. Existing joints in concrete sub-floors must be carried through tile work and shall conform to architectural details and appropriate standards.
2. Expansion joints must be installed where the tile abuts restraining surfaces and directly over cold joints and control joints in structural surfaces and shall conform to architectural details. Make joints through tile work directly over structural joints at least as wide as structural joints.
3. Interior installations shall have expansion joints spaced a maximum of 20'0" x 20'0" (6m x 6m). Exterior areas shall have expansion joints spaced a maximum 15'0" x 15'0" (4.5m x 4.5m) or at centers determined by the project's structural engineer. Expansion joints shall be raked or cut through the setting bed to the supporting slab or structure.

Note: The responsibility for calculating the actual spacing and size of the expansion joints rests with the architect/engineer. Consult a reputable sealant manufacturer for recommended sealant.

Initial Cleaning and finishing

NOTE: Tiles are not sealed and therefore we recommend sealing prior to installation. Use a Silane Siloxane penetrating sealer. This is particularly important with Rough-textured tiles as grout will be difficult to remove.

Smooth Tiles

1. After the mortar and grout have sufficiently cured, following manufacturer's instructions, sweep the floor thoroughly to remove all loose grit particles. Wash the floor with a pH-neutral detergent (dishwashing powder detergent), such as **Procter and Gamble's Cascade**, using a single disc floor machine equipped with a Blue Pad, Red Pad or a natural bristle brush.. Concentrate the floor machine on severely soiled areas and hard to remove marks
Note: if the floor is badly soiled, this process may need to be repeated as necessary.
2. Note that hard to remove marks or scratches will clean up with Wet & Dry sandpaper, 400 or 500 grit, used WET. Stubborn stains such as oils or greases may require a stripping detergent or spot cleaner; (following manufacturer's instructions).
3. Rinse the floor thoroughly using liberal amounts of clean water. Remove water from the surface and allow the floor to dry thoroughly before buffing.

4. We advise sealing before installation, but if this is not done, the floor will need to be sealed with a Silane Siloxane penetrating sealer from a reputable company.
5. If a low sheen finish is desired, dry buff with a high speed gas buffer using a white pad. If this is unavailable use a normal machine with a white pad.

Rough Tiles

For rough tiles follow the above steps as appropriate, however use only an abrasive-coated nylon bristle brush on the single disc floor machine. Also do **NOT** attempt to use Wet and Dry sandpaper as in point no. 2 above on a Rough textured tile.

On Site Sealing: Repeat as (5) above. Do not buff.

Caution – Surface Sealers: Most surface sealers are incompatible with penetrating sealers. Seek appropriate advice before using surface sealers.

Maintenance

Touchstone Tiles require proper care and maintenance to ensure that they always look their best:

- Set up a regular floor maintenance schedule
- Use properly sized walk-off mats
- Sweep or dust mop daily
- Vacuum the walk off mats daily
- Use protectors on chair and table legs

Smooth Tiles

1. Clean the floor using a dishwashing powder detergent, such as Procter and Gamble's Cascade. Use a mop to clean edges and corners. If a dishwashing detergent is not available use a damp mop with a mild neutral detergent.
2. Rinse and dry.
3. If desired, buff floor with a high-speed gas buffer using a white pad. If unavailable use normal buff machine.

Rough Tiles

Follow the same cleaning program, using the bristle brush as the main cleaning tool. Do not buff.

Low Maintenance Routine

1. Sweep daily.
2. Damp mop as required using a neutral cleaner.

3. Periodic buffing with a pad on a floor-buffing machine can be used to increase the level of the sheen.

Stain Removal

Most stains can be removed by scrubbing with water and a pH-neutral detergent. For more difficult stains use a spot cleaner (follow manufacturer's instructions).

Renovation Procedure

Floor can be simply renovated by following the steps outlined in Initial Cleaning & Finishing procedure.