



INSTALLATION AND MAINTENANCE GUIDELINES FOR PORCELAIN AND CERAMIC TILES

INSTALLATION

The successful installation of floors depends not only on the quality of tiles but on a combination of factors (bedding, binding layer, expansion joints, etc.) that constitute a full system. That is why installation operations are to be considered as important as the choice of tiles. However, based on the structure and purpose of the flooring surface, the specifier or designer is still responsible for selecting tiles with the correct technical characteristics to be employed within the specific environment. Before starting the installation of any surface, we recommend that the installer make sure that the tile batch is adequate and sufficient in terms of quantity, tone and calibration. Moreover, all necessary norms and precautions need to be implemented for the correct completion of the work (bedding preparation, composition of mortar or adhesives, maturing period of the surface bed and adhesive, positioning of movement and expansion joints, sufficient grout spacing etc.). In case of large environments joints must be positioned at regular intervals, in small environments a small gap between the tiles and perimeter walls is sufficient: the skirting board will cover the gap and provide the finishing effect. Avoid walking on the floor for at least 2/3 days after installation. If walking on the floor is necessary, lay wooden planks on the surface. Please notice that if the tiles are installed with the traditional procedure and no additives are added to the mortar, at least one month has to elapse before the floor can be subjected to stress and operating loads.

Should it be required, the exact technical installation information can be sourced from any one of the professional companies supplying the materials for installation (such as Norcros, Weber Saint Gobain or Mapei).

Special note must be taken of the following :

Large format tiles :

- There are permissible manufacturing tolerances for ceramic and porcelain tiles, and large format tiles may have permissible surface flatness irregularities, ie the tile surface may be 'curved' or 'bowed'. Back buttering with a thin coat of adhesive may therefore be required to ensure full contact and a solid bed of adhesive behind each tile.
- Laying of tiles in a brick/running bond pattern should therefore be carefully considered because of potential lipping caused by the curvature of large format tiles. (Patterns should have a maximum offset of 25%.)
- It is also essential that the substrate to be tiled is totally flat and level to minimize the risk of 'lipping' of tiles. Variations in levels should be rectified prior to the tile installation. (TAL SCREEDMASTER self-smoothing underlayment may be installed to achieve the required surface finish.)
- The joint width for fixing large format porcelain tiles (including rectified tiles) should be no less than 3mm wide.



LIMEGREEN

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- With a smaller number of joints between large format tiles, compared with the same area of normal format tiling, less stress (movement) can be accommodated at tile joints.
- It is highly recommended that the installer utilises a levelling system on the joints (such as the ANDAL system) when installing large format tiles to ensure that lipping is reduced as much as possible.

MAINTENANCE

The maintenance of porcelain and ceramic tiles does not require specific treatment with the exception of the following cleaning instructions:

Initial cleaning: (once-off process)

All newly laid tiles should be thoroughly pre-cleaned prior to daily use. As a norm the floors have been exposed to cement and grouting residues and purging of the floor is required to remove the residue from the micro-pores of the tile to reduce dirt build up and to enhance the appearance of the tile. This is imperative to ensure the best results for the installed surface. The initial clean is normally performed once before using the floor. The floor must be washed using a solution of hydrochloric acid (2/3 water, 1/3 acid) or similar products specially designed for this purpose. True porcelain is resistant to all chemicals with the exception of hydrofluoric acid. To prevent the acid-based product used for the initial cleaning from corroding the cement-based joint filler, we recommend you wet the floor prior to cleaning so that the joints are impregnated and thus protected from the corrosive action of the acid. If the initial cleaning is carried out after the floor has been used, before applying the acid product it is advisable to first remove any grease or similar substances using suitable cleaning products. After cleaning, the floor must be rinsed thoroughly and the residual water collected. Floors should be scrubbed with a low speed single disc scrubbing machine fitted with a blue cleaning pad, using a solution of approved chemical and water, using a slow sideways motion across the entire floor. All excess water and chemical should be removed with a wet pick-up vacuum cleaner. The tile should then be rinsed with an approved neutralizer and removed with a wet pick up vacuum and allowed to dry. Companies supplying these suitable purging products include Adventure Industrial Cleaning, Speckleen, Tile and Floor Care, Fila and others. A detailed cleaning specification can be requested from these companies should this be required.

The sealing of porcelain tiles is not recommended.

Main clean: (to be carried out as and when required)

This is required to maintain the surface of the tile. This process can be undertaken once per week or more frequently if required, depending on the environment in which the tile has been installed. Using the incorrect chemical or incorrect dilution can speed up the re-soiling process and not only diminish the look of the tile but also could cause the tile to become slippery.

Tiled floors should be scrubbed with an automatic scrubber or single disc scrubber fitted with a blue cleaning pad and using the correct dilution of an approved chemical to maintain the tiles appearance. Extracting the excess chemical by means of a wet pick-up vacuum cleaner or auto scrubber is a critical step in this process.



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High traffic areas (entrances) may require more frequent cleaning schedules to keep a clean appearance and to reduce scratching of the tiles. On rough tiles, the use of the blue pad on a single disc scrubber is recommended or if necessary a polypropylene brush can also be used.

Daily cleaning:

For everyday cleaning, simply wash the floor with water and normal cleaning products suitable for ceramic surfaces (as per above mentioned suppliers). True porcelain should not retain stains or smudges of any type. Nonetheless, persistent stains that are difficult to remove with normal cleaning may be eliminated with the appropriate use of stronger and more concentrated cleaning products, capable of removing heavier dirt and restoring the original appearance of the tiles. Again it should be pointed out that porcelain is resistant to all chemicals, with the exception of hydrofluoric acid.

Removal of dry dirt is of paramount importance as this dirt can lead to premature wear due to the fact that the dirt is abrasive and can also result in slippery floors. Minimising dirt on the tiles is important and can prolong the life of the tile. In certain environment the correct use of walk-off matting is also very important. It is important to ensure that dirt is not being spread around by the incorrect use of a mop and dirty water. Dirt must be fully removed from the tile surface (via wet/dry vacuum if possible).

Process – dry dirt: Sweep area with approved Maslin tooling.

Process – wet dirt: Remove using a micro-fibre flat mop to ensure that dirt and the original spillage are not spread unnecessarily across the floor surface. An approved, diluted alcohol based product can be used for quicker drying without leaving streaky marks. On rough tiles a polypropylene brush can also be used.

The above information supplied by:

Adventure Industrial Care

Weber Tylon

Italian porcelain tile manufacturing companies (Casalgrande Padana, Marazzi Technica).