

# GENERAL INSTALLATION AND MAINTENANCE GUIDE

## 1.1 INSTALLATION ADVICE PREPARATION

**TILING.** The support base for wall or floor tiles must be stable, dry, flat and it must have the adequate consistency. This base must never be too hot or too cold and should be clean. One must not forget to clean any dust, grease or oil leftovers to facilitate an optimal adhesion. It is convenient to use slightly rough support bases, altering any excessively smooth leveling layer, in order to ensure great adherence.

**INSTALLATION MATERIALS.** The type of adhesive will be determined by the water absorption of each type of tile. In our case, it is advisable to employ the technique of placing a thin layer of cement adhesive of type C2. For formats larger than 30x30cm, we recommend to use the double-layer-adhesive technique. This technique involves the application of adhesive on the support base as well as on the tile; this technique is strongly recommended for outdoors.

The bonding material must be applied with a serrated edged comb to achieve a homogenous adhesive distribution throughout the laying surface, even in the corners of the tile. A non-uniform adhesive layer will cause tensions on the tile, resulting in an “eyebrow” effect. It is advisable to follow the instructions of the adhesive manufacturer, particularly for different cement-based bonding materials.

**INSTALLATION.** The handling of tiles, especially the rectified, must be done with utmost care to avoid scratching or chipping of the tiles. During the installation process, the surface shall not be marked by graphite materials (pencils) or permanent markers, especially in the case of polished products to avoid potential cleaning problems.

In the placement of tiles, the use of at least 2mm spreaders is advisable. For locked placement, it is advisable to fix at a distance from 1/3 of the piece, never at half of the piece. In large format porcelain pieces (over 60cm of any of its sides) it is convenient to use leveling clips to ensure the flatness of pieces.

**ASSEMBLY AND EXPANSION JOINTS.** The main functions of installation joints are:

- to absorb deformations of the support base.
- to increase surface adhesion between the parts and the bonding material.
- to improve the impermeability of the surface.

It is necessary to respect the indications given below:

- Structural joints: the construction project already takes into account the existence of these joints in the floor coverings. These must also abide when covering the joint with plastic trims.
- Perimeter joints: it is always appropriate to provide these joints that insulate the tile and bonding material from any structural movements, avoiding tensions with them. Perimeter joints are normally hidden by the skirting board or the tile itself; they must have a width of 5 to 10 mm, and may be empty or filled with deformable material.
- Expansion joints: allow deformations due to thermal and hygroscopic variations between tiles, the bonding material and the support base. Usually designed with a width of 5-8 mm and surfaces from 25m<sup>2</sup> (in sections of 5x5 m<sup>2</sup>) indoors, and from 9m<sup>2</sup> outdoors. These joints must be well executed; this means that they must be flexible, waterproof, well bonded and must reach the base support.
- Installation joints: to see between tiles. Before grouting these must be empty, without any bonding materials. It is not recommended to fix any floor without joints, advising a minimum joint of 2-3 mm. The grout used in installation joints must be applied with a rubber float. The market offers a wide range of grouts, which are suitable for each type of tile and temperature as specified by the manufacturer of the grout, in which the type of product to be used, colors and waiting time before grouting should be recommended. Before grouting, it is advisable to test a small area of the part to determine whether the chosen grout affects or stains the surface of the piece. In this case, one should contact the grout manufacturer. Ask the manufacturer for a suitable cleaner for this type of grip material. A bonding material with a thin granulometry is desirable in order to avoid scratches on the tile during its placement.

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## 1.2 CLEANING AND MAINTENANCE ADVICE.

**CLEANING AFTER INSTALLATION.** The most important cleaning operation is performed immediately after laying the tiles. This involves the complete removal of residues and dirt from the tile placement. An inadequate or late removal of this waste can create a cementitious layer on the tile capable of absorbing dirt. This may otherwise give the impression that the tile gets dirty when the actual problem resides in the surface film of dirt which was not removed immediately after laying.

Once the grouting of the tiles is finished, it is important, while the grout is still wet, to carefully remove any excess material immediately. This can be done using a sponge and plenty of clean water, repeating this as many times as necessary.

Do not perform the cleaning with metal tools, scrapers or abrasive pads. For stubborn stains, clean with alcohol and lukewarm water and rub with a clean cloth. If they do not disappear, check with the relevant technical department.

Once the above mentioned washing is done, another washing should be carried out using basic or alkaline degreasing agents, as acid washing can leave stickiness on the pavement which could help retain dirt. In areas where water is calcareous, it is convenient to dry the surface, in order to prevent the deposition of carbonates which will reduce the surfaces' gleam.