

## RECOMMENDATIONS

Important:

Technical specifications are valid only for those products classified as first choice. Consequently, any failure to conform to such standards with respect to all other commercial types shall not be considered as grounds for complaint.

## MAINTENANCE



### DURING BUILDING WORK

Since floor tiling is not the last job to be carried out in building work, once the tiles have been installed it will be necessary to provide adequate protection against possible damage during subsequent work, covering them with cardboard, thick plastic or a layer of saw dust.

### INITIAL CLEANING AFTER TILE LAYING

Dirt remaining after the completion of the work can be easily removed with a commercial scale remover or, failing this, an acid-based detergent, although the chemical resistance of the floor tiles indicated by the manufacturer must be taken into account.

When using cleaning products the following general considerations should be taken into account:

- Acid cleaning should never be carried out on recently laid floor tiles. The reaction of the acid with the unset cement may damage the joints or deposit in soluble compounds on the surface.
- Soaking the surface with clean water is recommended before treating with chemicals, thus preventing the grout from absorbing the agents being used. Rinse with water immediately afterwards to remove remains of the chemical products.
- Metal spatulas and abrasive scourers must not be used. Use sponges only, with natural sponge being the most suitable.
- This kind of operation should be carried out by experienced personnel, bearing in mind the specific features of the tiles in question and the manufacturer's recommendations.

### ORDINARY CARE

Day -to-day cleaning of stone ware tiles is particularly simple, requiring only clean water to which an alkaline detergent maybe added.

The use of waxes, oils or similar products is not recommended since the non-porous glazed surface prevents a correct application.

Household stains may occasionally be produced that cannot be fully removed with a commercial detergent, making it necessary to use solvents or specific cleaning agents. First check the chemical resistance of the tile and, as an extra precaution, test-clean a spare tile or a less visible area first.

### COMPLEMENTS OF NATURAL MARBLE

Extremely delicate product.

For correct preservations of the product, we advise the following:

- One time fixed, remove possible remains of installation (cement, etc.) with sponge and water (attention don't rub the pieces).
- For subsequent cleanings don't use powder detergent, solutions based on acid or alkalies and do not use abrasive scrubbers. Its enough using an humid cloth and a neutral detergent.

We don't accept any claim of merchandise, which not ful fill the requeriments offixing and maintenance.

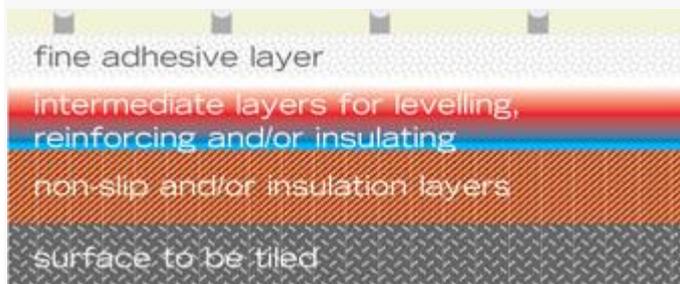
This product has past during his production a strict compliance of quality controls.

### LAYING OR HANGING



The success of porcelain tile is not only due to the technical and a esthetic quality of the material, but to a number of other factors(surface to be covered, intermediate layers, adhesive, expansion joints...)making up an entire system.

### CERAMIC TILES



### FEATURES OF FLOOR OR WALL

Prior to laying or hanging ceramic tiles, the floor or wall should be examined to ensure a stable base. The surface to be covered must be level, firm and free from substances which might preventthe adhesive from binding.

The main characteristics to consider are the finish and surface condition of the floor or wall, whether it is smooth and even, its capacity for water absorption, deformability and dimensional stability, reaction to water and humidity and its chemical compatibility with the adhesive to be used.

If the condition of the floor or wall fails to fulfil the requisites for laying or hanging, or major structural movement is foreseen, this should be solved by adequate treatment of the surface to be covered and/or using sliding layers, levelling, reinforcement and/or insulation layers and suitable provision of dilation or movement joints intended to absorb the various degrees of pressure generated by movement of the substrates and structures.

In the case of recovering existing ceramic surfaces it is advisable to treat the surface in order to create areas which will help the product to adhere.

### **PLACING AND MOVEMENT JOINTS**

Strict observance of the 1.5mm minimum joint between floor tiles is essential, with a wider joint being recommended for medium and large formats, thus allowing absorption of the differential pressure produced in the multi-layer floor/adhesive/tile system.

For large surface areas it is advisable to divide the floor into 4x4m square sections, introducing elastic expansion joints (partition joints).

In any case, it is wise to leave a gap between the flooring and existing elements such as walls, pillars and raised levels (perimeter joints), intended to prevent pressure from accumulating. This gap can be covered later by the skirting tile. The absence of these joints is usually one of the most frequent causes of loose floor tiles.

### **FEATURES OF PORCELAIN TILE: LAYING OR HANGING TECHNIQUES AND ADHESIVES**

Since these tiles have a very low water absorption capacity, it is essential to use adhesives compatible with low porosity. The "thin bed" laying technique should be used, with adhesives suited to the open porosity of the tile and compatible with the surface to be covered. For non-residential applications it is advisable to use cement-like adhesives with a high polymeric resin content, dispersion adhesives or reagent adhesives, depending on the floor surface requirements and the atmospheric conditions.

In any case, high levels of adherence, flexibility and good resistance to water can be considered normal demands, plus high chemical resistance for industrial applications. These recommendations can also be applied to the grout, which is usually expected to be elastic and offer high mechanical and chemical resistance.

To ensure a correct use of adhesives, the manufacturer's instructions for preparation and application must always be followed, respecting the times indicated.

Owing to the low water absorption of glazed gres porcelánico, which delays drying time for the adhesive being used, a 48-72 hour wait is recommended before subjecting the floor tiles to normal use. In the case of polished products, avoid using pointing materials containing soot black (micronized carbon) or making pencil markings on the surface of the tiles as this may cause difficulty when cleaning the tiled surface.