

# NATURAL STONE INSTALLATION RECOMMENDATION

# 1. A CLEAN AND DRY SUBTRATE

A. In order to avoid bonding problems, the substrate must be completely cleaned, free from dust, grease, mortar residues, etc. Always clean the surface before laying the tiles. Substrate must be resistant, stable, dry to obtain a correct adherence.

### 2. ADHESIVES

2A. Adhesive (white glue), must be selected concerning the material absorption and substrate properties. In any case, Cital does not recommend the use of sand based mortars, since sand contains various salts, that mixed with water and cement, may be absorbed by the materials porosity, producing efflorescence pathologies.

2B. For materials of high absorption, such as sandstone and limestone, Cital recommends C1 type adhesives (white glues) for indoor use and C2 for outdoors. For marbles, C2 adhesives (with glues) can be used for both indoor and outdoor uses, as its main property is elasticity and adherence. In the case of natural stones with fiberglass or mesh baking, Cital recommends type R adhesives (white glues), resin reactive.

## 3. APPLICATION METHODS

3A. The use of notched trowel is recommendable to spread the product on the subtract in order to control the thickness and assure the adhesive distribution. For 30x30cm or larger, Cital recommends using the buttering-floating technique, which consists of applying the adhesive (white glue) on both the substrate and in the back of the tiles in order to assure 100% of contact with the bonding material

- 3B. To assure the total flattening of the grooves left by the notched trowel on the bonding material, lay the pieces and tap them with a rubber mallet.
- 3C. Cital recommends leaving 1.5mm joint between interior pieces and 3mm for exterior pieces. This is to compensate the expansion/contraction caused by thermal variation (temperature variation), of course considering the total perimeter and structural joints.

# 4. GROUTING

- 4A. The grouting process consists in filling the space between pieces, better known as joints. The installation joints must be cleaned and free from any bonding materials, traces of dirt and grime. This way, adherence of grout will be improved and more effective.
- 4B. The grouting material should be applied 24/48h after the covering application, in order to help the evaporation of the water used to prepare the bonding mixture. This way avoids moisture stains that might cause efflorescence.
- 4C. The grouting material should be applied with a rubber trowel and always in the joint gap. Never use the traditional grouting method which consists of spreading the grouting material all over the coated surface, since the stone porosity can cause scale problems and affect the subsequent cleaning.
- 4D. The removal of grouting residues must be done not too long after the application. It's is necessary to use a damped sponge to avoid leaving grouting material deposits.