

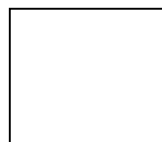
□ BEFORE INSTALLATION

- **Caliper.** Ceramic tiles suffer important contractions during the firing process. As they are manufactured with natural raw materials such contractions are not constant and tiles of different sizes are obtained. For this reason material is divided into groups of established sizes which constitute the different calipers. You may find in the corresponding Annex the tables indicating the sizes of each caliper for each format.

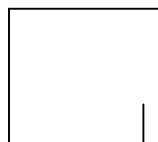
If several models are to be combined it is very important to verify all of them have the same caliper as otherwise problems shall arise during installation.

Rectified products have only one caliper and they are identified on the cartons with the words “single caliper”, “monocalibre”, “s/c”, “mc”, or “..”.

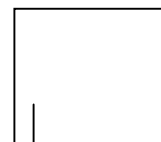
- **Shades.** Just like with sizes, tiles also change in pattern, color and movement. Such variations give rise to the different shades. With each new production run there appear new shades which are identified on the cartons with two numbers and two letters (i.e. 27AB). Such shades shall be similar to those obtained in previous productions but they shall never be equal, therefore it is necessary to buy all the material to be installed at the same moment and to make provisions for eventual substitutions to be made in the future (in the event of repairs in piping which may render floor breaking necessary).
- **Quality.** Quality of material is printed on cartons with a “1” or “PRI” for first choice and a “2” or “SEG” for the second choice. The selection of material is carried out in a visual way to determine its aesthetic aspect and in an electronic way to verify its dimensions and flatness. International standards establish as acceptable a percentage of defects up to 5 % in first choice materials.
- **Marks.** During sorting, material is divided into different choices (first, second and discard) and shades (majority, secondary and third). Such division is carried out by marking the tiles with crayons or stickers which are then detected by the packing machine. For this reason it is possible to find first quality materials with marks because they may have corresponded to a secondary or tertiary shade (majority shade is not marked). In order to avoid doubts on this subject marks have been identified as follows:



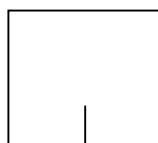
1° Choice
Majority Shade



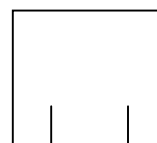
1° Choice
Secondary Shade



1° Choice
Tertiary Shade



2° Choice



Discard

- **Control of information printed on cartons at the moment of receipt.** The above paragraphs state the importance of coincidence among grade, shade and caliper information printed on the cartons. Such control must be carried out when the material is received in order to avoid problems in future as no claims shall be accepted if the material has been already installed. If problems are observed do not accept the consignment and contact your supplier.
- **Control of the surface.** Be sure that You are pleased with the material to be installed and that it has no evident or visible defects. If such problems are detected do not start installing and contact your supplier immediately. No claims shall be accepted if material has been already installed. If tiles show color shade variation it is convenient to spread a 3 or 4 sqmt surface and to mix tiles of different boxes in order to make a correct evaluation.
- **Installation surface.** Be sure that ceramic material is installed on a levelled, flat and hard surface and that it is completely clean and dry.
- **Adhesive.** All our porcelain stones must be installed using adhesives indicated for very low absorption materials. Special adhesives, of latex modified type should be applied in outside installations and in areas subject to sharp temperature changes (under floor heating) to guarantee material adhesion and to absorb the expansion differences between the substrate and the ceramic material. In order to have a better guidance you should contact adhesive manufacturers.
- **Grouts.** It is advisable to use flexible materials which should be able to absorb the expansion differences between your porcelain stone and the substrate. Due to the microporosity all materials have, it is possible that some grout materials, especially the strongly colored ones, present cleaning problems which get worse when there is a great contrast between the tiles and the grout. In order to avoid these eventual stainability problems we recommend to carry out tests by applying the grout on a piece of the material and using colors which are similar to those of the tiles. Before applying grout it is advisable to spread a thin wax coat over the surface of the tiles in order to make their cleaning easier. Wax should not be spread on porcelain stone's edges as it may render the adhesion of grout difficult. As with adhesives it is convenient to consult grout manufacturers.
- **Back side glaze.** Tiles have a white refractory glaze at the back side which is used to avoid the adhesion of the tiles to kiln's rollers during firing. Such glaze does not represent any problem for installation.