

LAYING RECOMENDATIONS & REGULATIONS

LAYING RECOMENDATIONS FOR CERAMIC TILES.

Preparation for the tile setting

The laying of ceramic tiles must be carried out by an experienced professional. Always use the appropriate tool and equipment.

The surfaces, whether it be floors or walls, must be perfectly levelled. For this purpose, a regulating or levelling mortar can be used or even water-proofing or drainage layers, etc, if the situation requires it. The surfaces must be completely clean before applying the mortar or the adhesive.

Choice of adhesive and method of application

The choice of adhesive is defined by the type of ceramic tile, the type of surface to be covered and the purpose of the tiled area.

The choice of tiling method depends on the collocation of the site (outside or inside) and the dimensions of the ceramic tiles.

It is recommended to contact the dealer and to follow the instructions of the manufacturer.

It is recommended to use a fine layer as opposed to a generous one.

It is recommended to use double the adhesive with those tiles which have one or more sides longer than 30 cm. This technique is achieved by placing adhesive both on the tile setter and on the tile, completely covering their surface.

Special care during setting

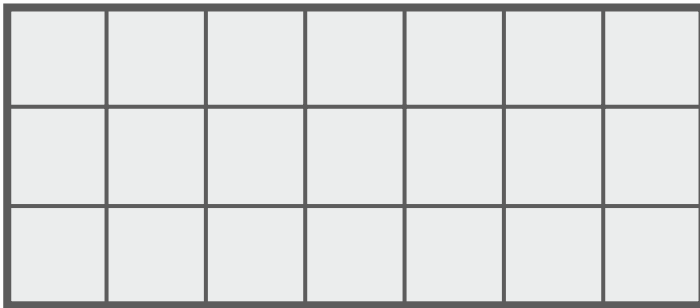
Use crosses of the appropriate size according to the joint, in order to maintain the orthogonality of the setting.

If to be set in a brickwork style or at a counterpoint, it is recommended not to surpass 25% of the longest side.

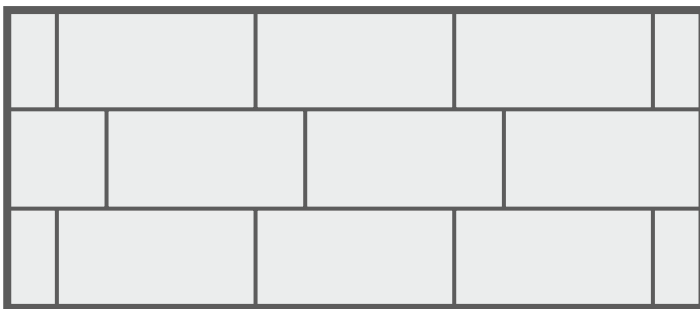
Check the material applied while the adhesive is still setting, in order to correct small variations.

Diferent ways of tiling

Standar

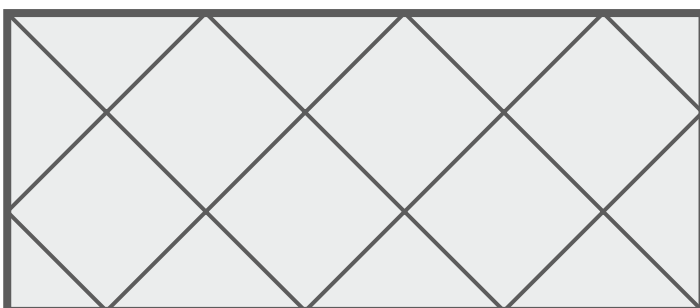


Running Bond Pattern

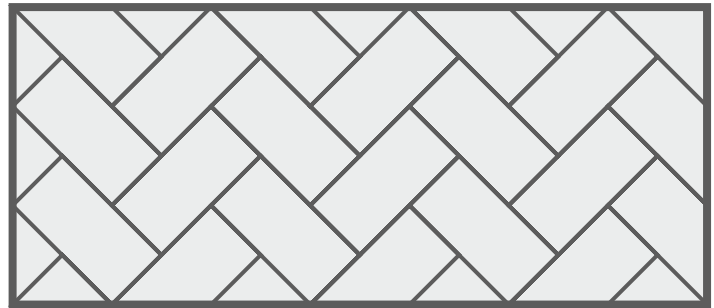


No trabar nunca a más de 1/4 de pieza.

Diagonal Pattern



Herringbone Pattern



Grouting

The joints are a necessary element for the conservation of the premises. There are various types of joints in a site:

A. Structural Joints: These are designed to absorb movements in the building and must always be respected. They can be covered with adequate profiles and filled with the indicated materials.

B. Perimeter Joints: All joints where the wall meets the floor. The minimum width will be 8 mm. and must be empty or filled with a deformable material. They can be concealed with the skirting board or the wall tie.

C. Setting Joints: These are the spaces left between tiles. The setting will be considered to have a joint when the space between each tile is greater than or equal to 3 mm. For spaces of less than 3 mm., there is considered to be no joint. There should always be a minimum gap of at least 1,5 mm.

Before starting to apply the grout around the tiles, ensure that the mortar or adhesive is completely hard.

The joints must be completely clean and free from dust and particles.

Refill or seal the joints with grout using a grout float of hard rubber, without leaving spaces or uneven levels.

Remove any excess grout from the surface by moving the grout float in a motion diagonal to the joints, while the mixture is still fresh. Remove any residue with the same spatula.

It is important to consult the dealer when choosing the grout that is adequate for the tile and the colour that is the most aesthetically appealing.

Always follow the instructions of the manufacturer.

Finish the job

The job is not over until it has been fully completed.

Cleaning the joints: Respect the times advised by the manufacturer, clean the whole surface with a damp linen cloth, including the grout. When drying there may appear a veil or coating on the surface, this can be cleaned with water. Do not wait too long before cleaning the remaining joints.

Clean the rest of the site with the appropriate products. Contact the dealer and never use products that contain Hydrofluoric Acid HF.

Protect the surfaces already set against impacts, abrasions, etc.

Maintenance of ceramic tiles is easy and convenient. Specific products can be employed for each type of tile. Carefully follow the instructions of both the manufacturer of the tiles and the manufacturer of the products. Contact the dealer or advice.

It is advised on having placed to mix pieces of several boxes. To check before placing the tonality, the calibre and the class. Are not admitted claims relating to the placed material.

WATER ABSORPTION. UNE-EN 180 10545-3

Water absorption measures the degree of internal porosity of the ceramic body.

The test determines the quantity of water absorbed by the pieces when submerged in boiling water for a certain period of time. Water absorption is expressed as a % of the dry mass of the pieces.

SCRATCH RESISTANCE. UNE 67-101-92=EN 101

Scratch resistance is a measure of the hardness of the surface of a tile. The tile is assigned the number immediately below that of the first mineral on the Mohs scale that scratches it.

THERMAL SHOCK RESISTANCE. UNE-EN ISO 10545-11

This is determined by subjecting the whole tile to 10 cycles of alternating between the temperature of cold water and slightly above of boiling water. This test is performed at 15l' and 145l'C.

RESISTANCE TO BREAKAGE. UNE-EN ISO 10545-11

Measure the resistance to glaze breakage, testing whole pieces to water vapour and pressure cooker, after painting the glazed side with ink. Searching for the glaze cracks.

CHEMICAL RESISTANCE. UNE-EN ISO 10545-13

This test separately determines the resistance of the tiles to stains, cleaning products, acids and alkalis.

To test stain resistance, a methylene blue solution and a potassium permanganate solution are applied to the piece and allowed to dry. The piece is then cleaned and observed for visible changes to the tile surface.

The result is classified on a descending scale of 5,4,3,2,1. The lowest acceptable value for 6 hours and examined for visible changes.

The results are classified on a descending scale of GA- GB - GC.

To test resistance to hydrochloric acid and potassium hydroxide, the procedure is similar but the test period is 7 days.

The results are classified on a descending scale of GLA- GLB - GLC.

FROST RESISTANCE. UNE-EN ISO 10545-12

When a tile absorbs a large quantity of water and the volume of this increases on freezing, the tile can break.

The test consists of soaking the tiles in water and subjecting them to temperature cycles from +5l'C to -5l'C.

All sides of the tiles are exposed to freezing over 100 freeze-thaw cycles.

MESUREMENT TO STAINS RESISTANCE. UNE-EN ISO 10545-14

The method to measure the resistance to stains consists in keeping the showing side of the tile during certain time to different stain proofs, applying the different solutions to remove the various types of stains and then analyzing the results in order to detect irreversible changes.

From this procedure we obtain 5 degrees according to the results.

The 5th degree would be applicable to those surfaces that have been the easiest to clean and the surface has not been deteriorated, the 1th would be the hardest to remove or the surface has been irreversible deteriorated.

SLIP RESISTANCE. UNE-ENV 12633:2003

With the aim of reducing the risk of slipperiness, the technical construction code (CTE) classifies the floors according to their localization in buildings, Sanitary areas, educational centres, commercial centres, administrative areas, Par-

king areas or public spaces, excluding areas of limited use.

This classification is measured according to slipperiness resistance:

Rd ≤ CLASS 0

15 < Rd ≤ 35 CLASS 1

35 < Rd ≤ 45 CLASS 2

45 < Rd CLASS 3

The classification of the floors according to their localization is as follows:

DRY INNER SPACES

* Areas with slope lower than 6%

* Areas with slope equal or higher than 6% and stair-cases

CLASS 1

CLASS 2

DAMP INNER SPACES such as halls with entrance from the street (1), covered terraces, changing rooms, showers, toilets, kitchens...

* Areas with slope lower than 6%

* Areas with slope equal or higher than 6% and stair-cases

CLASS 2

CLASS 3

INNER SPACES in which apart from water, there may be other elements (grease, lubricant...) that diminish the slipperiness resistance such as industrial kitchens, slaughterhouse, and areas for industrial use...

* Areas with any slope

CLASS 3

OUTER SPACES

* Swimming pools (2)

CLASS 3

(1) Except for direct entrance to restricted areas.

(2) In areas thought for barefoot users and in the interior, when it does not achieve 1.50 meters depth.

INSTALLATION GUIDE

- 1.- Please ensure that the surface where you are about to lay your tiles, is totally free of dust, smooth, dry, clean and structurally sound.
- 2.- Please check that the tile you are just about to install, has the shade, color and quality desired and lay some tiles on the floor, just to double check on its appearance before you start installing. The material must be checked prior to its installation. No claims would be accepted on any material already fixed.
- 3.- We recommend type C1 or C2 adhesives, (UNE-EN 12004). Use always a notched ceramic trowel from its smooth side.
- 4.- Always leave a gap between tiles. Start grouting in a corner and work out. Use the rubber grout float to spread the grout directly on the tile, pressing firmly into the joints. Now begin washing the surface of the tile with a damp sponge.