

# INSTALLATION INSTRUCTIONS

## CERAMIC TILES



1-

1- Installation of ceramic tiles should be carried out by skilled personnel, with demonstrable experience and appropriate tools and equipment, (i.e. toothed trowels, tile spacers, rubber mallets and suction cups for installation, and rubber trowels, sponges and containers for grouting). Check the information contained on the packaging beforehand, and meticulously follow the manufacturer's recommendations.



2-

2- Check that the substrate to be covered is stable and the base is suitable for installing ceramic tiles: rough texture, not friable, completely flat and level. We recommend that all damp areas are waterproofed.



3-

3- Surfaces to be tiled must be completely free of dust or any other substance which could impair tile adhesion. For specific installations (radiant heating systems, façades with mechanical anchors, ceramics on roofs/ceilings or particular design constraints) request additional information specifically for each application.



4-

4- The workplace must be adequately lit to detect possible installation defects easily, especially lippage between tiles. Electric site lighting is recommended, to provide brighter than normal light.



5-

5- Choose the type of adhesive depending on the conditions and tiles used. The choice of tile and adhesive are critical to the subsequent performance of the entire work. Factors to take into account are: the type of ceramic material, tile format, substrate and end use (any traffic it will be subjected to, safety requirements in respect of falls ...). PORCELANOSA catalogues contain recommendations in respect of use and slip resistance, as well as the butech adhesive recommended for each design.



6-

6- The only fixing system recommended is installation on a thin layer using a toothed trowel. A double bonding technique (with adhesive applied to both the substrate and the back of the ceramic tile) is recommended for tiles with a format larger than 1,000 cm<sup>2</sup>.



7-

7- Great care should be taken when handling to avoid scratching, breaking or chipping the tiles, especially rectified tiles. Prior to installation, check that the tiles are free from defects.



8-

8- Grout joints should be at least 1,5mm for interior flooring and 5mm for exterior paving. For installations with offset joints, stagger the tiles at the 3/4 point. Self-levelling tile spacers are recommended.



9-

9- Follow manufacturer's recommendations in respect of the preparation and use of adhesives. Do not apply adhesive at a thickness greater than indicated on the label, check the wetting capacity of the adhesive and press the ceramic tile into the bonding material with a side to side movement. Distribute the adhesive evenly under the tile. Different thicknesses may produce lippage defects caused by differential shrinkage of the bonding material. When positioning adjacent to previously installed ceramic tiles, estimate possible shrinkage and compensate for this.



10-

10- Edge joints occurring at corners, changes of paving level and changes of material should be covered with tile trim or a tile itself and sealed with flexible sealant. Minimum joint width: 8 mm.



11-

11- Take account of structural joints. Movement joints should be positioned as directed by the project designer. In general, do not design areas greater than 50-70 m<sup>2</sup> for interiors and half that for exteriors. Minimum joint width: 8 mm.



12-

12- Both during installation and at the end of the day, check the quality of the work carried out before the bonding material sets. Correct any defects using suction cups and rubber mallets.

*\* Before using the system of anti-levelling crossings, perform a preliminary test with the type of wall tiles or floor tiles to be placed and check that during the breakage process of the separator, the tile is not damaged especially in embossed or rectified tiles without beveling. Consult the national standards of placement and respect the minimum joint width indicated for the type of tile and installation to be carried out.*



13-

13- Prior to grouting, check that the bonding material has hardened. Remove the tile spacers, clean the joints along their length, width and depth, and check the joint is not damp.



14-

14- Joints should be grouted when the tiles are completely fixed to the substrate. In respect of paving, follow the recommendations of the adhesive manufacturer to ensure sufficient time is allowed before the floor is walked on or subjected to load. In this way movement and/or breakages are avoided.



15-

15- Follow the manufacturer's recommendations in respect of the preparation and use of grouting materials. Ensure that the material and tools chosen do not damage the tile surface. The grout should be applied using a rubber trowel. PORCELANOSA catalogues contain details of the butech materials recommended for each design.



16-

16- Wait for the grout to start to dry, then clean with a sponge dampened in clean water. Do not allow the grout to harden on the tile, especially on textured tiles. Do not soak the joint with excess water.



17-

17- Protect the paving against premature loading, other construction work and adverse weather. We recommend covering the paving with sheets or boards to avoid a build-up of dirt and to protect from scratches, abrasion and impact.



18-

18- For cleaning, use products compatible with the chemical resistance of the tiles. Do not use strong detergents containing abrasives or cleaning agents containing hydrofluoric acid (HF). This acid attacks the glazing and will cause irreparable damage to the tiles.