

## INSTALLING 20MM PORCELAIN TILE EXTERNALLY

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In recent years, there has been a growing use of 20mm porcelain tiles for external areas, such as porchways, terraces, pathways and even driveways.

Whilst the choice of substrate upon which to lay these tiles is governed by the load being applied to the surface (i.e. driveways will need more support from the substrate than a patio), we recommend the tiles should be fitted by a suitably qualified installer. Here are some general guides on the methods available.

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### **Concrete screed**

The method for laying tiles on a concrete screed is the same as internal tiling (i.e. tiles fixed with adhesive and grout) and can be used for patios and driveways. The concrete base needs to be sufficiently thick to support the load being applied to the top surface (reinforcement bars may be required for driveways) and the slab must be fully cured before the tiles are laid.

Any external area will require a fall that is at least 150mm below the (DPM) Damp Proof Membrane of any connecting building to take rain water away to a drainage point, and large areas may also require expansion joints.

### **Aggregate sub-base**

The aggregate must be suitably graded (40mm to 1mm) and of a sufficiently good quality and depth to support the load being applied to the surface. It should not be susceptible to moisture, frost or movement and is better suited to footfall areas such as patios, pathways and porches.

The tiles will then need to be laid on a full mortar bed (i.e. 1:4 cement/sharp sand) between 15mm and 30mm deep that contain no voids. Slurry bonding the back of the tile will help with creating a good adhesion.

### **Adhesive pedestals onto a prepared sub-base**

This method uses 'rings' filled with a mix of sand and cement to create a series of adhesive pedestals. The

tiles are then fixed to these using a suitable tile adhesive, and the joints are grouted after a backer rod is inserted. This method requires a self-draining sub-base beneath it to avoid water pooling, and is only suitable for foot traffic. Material requirement is around 80% less than solid or wet bed methods which also lowers the carbon footprint for the project and means a lot less material to move.

### **Self-levelling pedestals on roof terraces & balconies**

Adjustable pedestals are perfect for use on balconies and terraces with existing drainage. Each pedestal has a self-levelling head that can be adjusted slightly as the tiles are installed, to create an even surface. These pedestals are available in a range of heights, from 10mm up to 215mm using extension pieces. This is a 'dry' installation method as no adhesives or grouts are required and the joints are left open, allowing for easy drainage between the tiles and removal of the tiles in the future.

In all of the install methods above, the tiles will need to be cut using a water-cooled tile cutter, with a sufficiently strong diamond-coated blade to cut through these strong tiles.

Your installer will be able to source all the correct adhesives and grouts required, however if you have any questions or require further advice, please email [technical@claybrookstudio.co.uk](mailto:technical@claybrookstudio.co.uk)

