Claybrook.

OUTDOOR TILE INSTALLATION GUIDE

In recent years, there has been a growing use of 20mm porcelain tiles for external areas such as terraces and patios to match to a slimmer 10mm tile being used in an internal area like a kitchen or diner. Also, the compression strength of 20mm porcelain is so high, that they can be used for driveways and high traffic areas when sufficiently supported. Likewise, the move to a more seamless indoor/outdoor look can now be achieved with stone, using thinner tiles like 13mm internally and 30mm thick tiles externally.

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), so we would always recommend employing a suitably qualified installer to ensure both substrate, tile and fixing method are correct.

However, here are some general guides on the types of substrates available -

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. To minimise the risk of the concrete substrate moving, there should be sufficient expansion joints and any external area that connects to the external wall of a house/building will need to be at least 150mm below the (DPM) Damp Proof Membrane, with sufficient fall to avoid the build-up of water (i.e. – puddles)

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 is a method that 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 light 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 there is 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.