

# **A GUIDE TO INSTALLING PORCELAIN PAVING**





## WHAT YOU'LL NEED

### TOOLS

- Mixer
- Vibrating Plate
- Drill and Mixing Paddle
- Wheelbarrow
- Stone Cutting Wet Saw/Table Saw
- Diamond Cutting Blade (Toothless)
- Shovel
- Rake
- Trowel
- Rubber Mallet
- String Line
- Spirit Level
- Broom & Brush
- Pointing Iron or Grouting Tool
- Bucket/s
- Sponge
- Tape Measure
- Pegs
- Joint Spacers
- Wide Paint Brush
- Facemask (FFP3), Gloves, Ear & Eye Protection and Protective Footwear

### MATERIALS

- MOT Type 1 (General Sub-Base) Stone
- Sharp Sand\*
- Cement
- Pavestone Priming Slurry
- Flexible Grout (Swimming Pool Grade)

### BEFORE STARTING

Once your porcelain paving has been delivered to site, check it thoroughly for any breakages or chipping of the edges. Any damaged tiles should be put to one side as these can be used later for 'in fill' cuts.

\* Sand varies across the UK. Ask your local builders merchant for the type they recommend.

### DIGGING OUT

First mark out the area to be excavated using string lines and pegs and allowing for a 150-200mm margin for edging or haunching should the patio edge not adjoin a solid construction i.e. house or garden wall.

You will need to dig out a total depth of at least 160mm below the proposed patio height to facilitate: 100mm (minimum) of compacted MOT Type 1 (General Sub-Base) material, 40mm (minimum) of bedding mortar and the thickness of the porcelain paving (16-20mm).

Building Regulations stipulate that the paving surface must also be at least 150mm below any damp-proof course (DPC) so as to protect your property from damp. Your patio will also need to have a fall, to facilitate water drainage, of circa 15mm for every 1000mm. Set up a string line along the edge of the area to ensure that the whole project has the correct falls.

### SUB-BASE

A MOT Type 1 (General Sub-Base) aggregate is required to give foundation strength and stability to your patio. Rake out the aggregate to create an even layer roughly 30mm below the string line. Using a vibrating plate compactor, consolidate the aggregate to a compressed height of 50mm below the string line.

### BEDDING MORTAR

Using a mixer, make your bedding mortar using 5 parts of Sharp Sand\* to 1 part of Cement. The mortar be a smooth consistency, able to hold its own shape. Not dry/crumblly and not wet/runny.

Spread enough mortar to allow some of the bed to blend into the bed of the next slab. This ensures that the beds will knit or tie into each other.





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### BEDDING MORTAR (continued)

Using a shovel or trowel, apply the mortar to the sub-base, levelling it out to about 15mm below the string line. Ripple or roughen up the surface of the bed to allow for compression of the paving tile during final placing and only spread enough mortar for one flag at a time. The bed must be full with no voids.

### PRIMING THE PAVING

This is the most important difference to laying traditional concrete or natural stone paving flags and omitting this process will result in failure of the porcelain paving tiles to adhere to the bedding mortar. A characteristic of porcelain is an exceptionally low water absorption value, so the tile will not draw in moisture to the same degree as other paving materials. Porcelain therefore will absorb almost nothing from the bedding mortar and will not form a strong, sustainable bond. In order to ensure a good bond, each paving element will need to be first primed with a priming slurry.



Use Pavestone Priming Slurry to ensure a good adhesion between the paving and the mortar. The Primer is powder-based and only requires water to easily make a slurry paste. Mix to the consistency of a thick soup.

The slurry primer paste is then applied to the underside of the paving using a wide brush until an even coat is achieved, just before placing the slab onto the bedding mortar. Ensure that the primer covers all of the slab, going right up to the edges.

### LAYING THE PAVING

Gently tamp down the 'wet primed' porcelain paving onto the mortar bed using the rubber mallet. Adjustment will be necessary to ensure that the paving is fully supported, does not rock or move and use a straight edge with a spirit level repeatedly to check that each paving element achieves the desired level and fall as per the string line.

Immediately wipe off any slurry primer that may have unintentionally found itself on the face of any of the paving as you will not be able to remove this once it has set.

When laying more than one pack of paving, lay tiles from different packs to eliminate colour banding and to obtain the best colour blend.

Use joint spacers to help maintain a regular joint width between the paving elements. **NEVER** butt joint the paving.

Do not walk on the paving for at least 24 hours.



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### CUTTING

Cutting should be carried out using a water cooled and dust suppressing bench power saw, fitted with a diamond blade specifically purchased to cut porcelain paving tiles. These blades have no gaps in the cutting edge, i.e. an uninterrupted circular diamond cutting blade.

### JOINTING

To ensure a good bond and professional looking joint, use Pavestone Tile Grout.

1 x 10kg tub will point up to 37m<sup>2</sup> of 20mm thickness paving tiles. For full coverage information please visit <https://www.pavestone.co.uk/installation/jointing-compounds/jointing-grouts/>



### Available in 6 colours



### PORCELAIN TILE PROTECTOR

This is a pre-grouting treatment for use during porcelain paving installation. It protects the paving tile against grout residue, which when dried, can be difficult to remove.

Pavestone Porcelain Tile Protector protects the porcelain tile without altering the paving tile characteristics.

After cleaning the grout, you can apply tile protector which will help make the tiles easier to clean.



### INTERNAL FLOORING

Pavestone 16 & 20mm external porcelain paving tiles are not suitable for use as internal flooring. However, we do supply a range of internal porcelain paving, please refer to the website for more information.

Installing internal porcelain tiles is an entirely different process to that of installing external porcelain paving tiles. Please seek further advice if you are uncertain as to how to lay internal tiling.

### SEALING

Porcelain does **NOT** require sealing.



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**PLEASE NOTE:** this is a simple guide to installing a Pavestone porcelain patio and should be used solely for guidance.

If you have not been trained in laying porcelain paving or have not had past experience of laying porcelain paving we would recommend that you research the subject thoroughly prior to commencing. The internet is a good source for this research and in particular there are several YouTube videos that demonstrate good practice and the website [www.pavingexpert.com](http://www.pavingexpert.com) also offers good advice and instruction.

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