



 **PavingDirect**

A Guide to Installing **Pavestone Porcelain Paving**

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TOOLS YOU WILL NEED

- A shovel
- Rubber mallet
- String line
- Spirit level
- Pointing iron
- Circular Cutting Saw
- Diamond Circular Cutting Blade
- Gloves
- Facemask
- Eye Protection

MATERIALS NEEDED

- Type 1 MOT (General Sub-base) Stone
- All In Ballast
- Sharp Sand (Concreting Sand)
- Cement (OPC)
- Slurry Primer and SBR Additive
- Flexible grout, swimming pool grade

BEFORE STARTING

Once your materials have been delivered to site check them thoroughly for any breakages. Any broken tiles, assuming there are only one or two, should be put to one side as they may be useful later for in fill cuts.

Always layout your proposed patio first by placing the paving tiles as you plan the finished patio to be. This will highlight any potential issues and avoid surprises later during the installation process and will also confirm that you have enough paving to complete the project.

DIGGING OUT

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

You will need to dig out a total depth of at least 150mm below the proposed patio height to facilitate 100mm minimum of compacted Type 1 MOT, General sub-base material, a 30mm bed of mortar and 20mm being the thickness of the porcelain paving. 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 need to have a fall in the surface, to facilitate drainage, of circa 15mm for every 1000mm. This can be achieved by using a taught string line to guide alignment along the length of the paving.

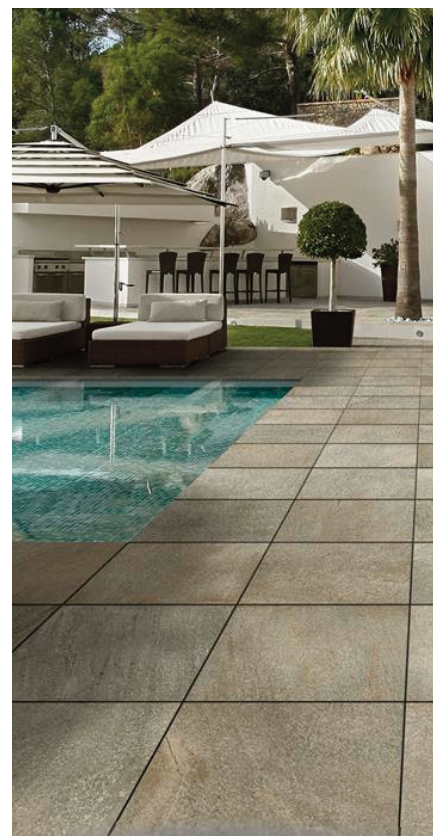
SUBBASE

A Type 1 MOT or General Sub-Base (GSB) aggregate is required to give 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 4 parts of Sharp Sand to 1 part of Cement and add the SBR additive to the mix to assist in the bonding process. The mortar should be a firm consistency and not sloppy or runny.

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 between laying traditional concrete or natural stone paving flags. Omitting this process will most likely 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 needs to be first primed with a priming slurry.

Paving Direct recommends using either Instarmac Ultrascap Pro-Primer or Larsen Streetscape PS to ensure a good bond is achieved. These are powder based products which require water to be added to make a slurry paste. The slurry paste is then applied to the underside of the porcelain paving element using a wide brush until an even coat is achieved.

LAYING THE PAVING

Gently tamp down the 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 elements as you will not be able to remove this once it has set.

Use joint spacers or pieces of 6mm plywood to help maintain a regular joint width between the paving elements.

CUTTING

Cutting should be carried out using 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.

PLEASE NOTE: this is a simple guide to installing a Paving Direct 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 also offers good advice and instruction.

JOINTING

To ensure a good bond and professional looking joint Pavestone recommends using ARDEX-FLEX FL (available in 32 colours) or Larsen Colourfast 360 flexible tile grout. Both are available through most builders merchants.

For more information visit

www.instarmac.co.uk

www.ardex.co.uk

www.larsenbuildingproducts.com