

BESWICK STONE

CIRENCESTER

EXTERNAL NATURAL STONE INSTALLATION – information on our outdoor stones and best practices.

Outdoor stone installation will likely fall into 2 main types:

- Standard patio base which is made up of MOT TYPE 1 or similar (this is a loose, hardcore material that gets compacted to 100mm for patio installs)
- Concrete base / cement screed – often used when levels need to be exact

Our external stones fall into two categories:

- Category 1 is those which can be installed using a normal **GREY** cement & sharp sand wet mortar mix when installing onto MOT & an external grade flexible **GREY** tile adhesive when installing onto concrete base / cement screed
- Category 2 is those which must be installed using a **WHITE** Portland cement & sharp sand wet mortar mix when installing onto MOT & an external grade flexible **WHITE** tile adhesive when installing onto concrete base / cement screed

For both categories SBR (Styrene Butadiene Rubber) can be added into the sand & cement mortar mix to give the mix more flexibility, adhesive strength, water resistance and resistance to freezing when installing onto MOT. The only drawback with SBR is that it reduces the working time for the mortar to around 10-15 minutes, so it needs to be used quickly. 200ml per kg of cement or 5litres per 25kg bag.

Our stones:

Category 1 (normal GREY cement & sharp sand mix / GREY tile adhesive)	Category 2 (WHITE Portland cement & sharp sand mix / WHITE tile adhesive)
Black External Flagstone	Avignon External Tumbled Limestone
Jaipur Flagstone	Avignon Sandblasted Limestone*
Manor Flagstone	Castile External Tumbled Limestone
Old Heritage Flagstone	Clyde External Tumbled Limestone
Raj Beige Flagstone	Hebron Cream External Limestone
Raj Black Flagstone	London White Aged Flagstone
Raj Grey Flagstone	Mixed Seam External Tumbled Limestone
Windsor Light Grey Flagstone	Provence External Tumbled Limestone
	Regent / Dijon External Tumbled Limestone

**NB: Avignon Sandblasted can only be installed on a solid concrete base / cement screed*

Installation Table:

	BASE TYPE	
Stone Category	MOT TYPE 1	CONCRETE BASE / CEMENT SCREED
Category 1 Stones: Jaipur Manor Old Heritage Raj Beige Manor Old Heritage Windsor	<u>Fixing:</u> GREY cement & sharp sand (1:5) wet mortar mix with SBR. Apply a coat of slurry prime to the back of every slab, right to the edges, before laying e.g. Pavestones' 'Priming Slurry'. <u>Sealing:</u> Seal the stone with Rocatex Paving & Stone Patio Sealer (this is optional for MOT installs BUT is certainly best practice and will help in preventing staining etc).	<u>Fixing:</u> Best practice - use an external grade S1 GREY flexible adhesive – maximum adhesive bed of 20mm <u>Sealing:</u> Seal the stone with Rocatex Paving & Stone Patio Sealer. Stone must be sealed on concrete/screed pad installs to minimise water penetration.
	MOT TYPE 1	CONCRETE BASE / CEMENT SCREED
Category 2 Stones: Avignon External Avignon Sandblasted* Castile External Clyde External Hebron Cream External London White Mixed Seam External Provence External Regent / Dijon External	<u>Fixing:</u> WHITE Portland cement & sharp sand (1:5) wet mortar mix with SBR. Apply a coat of slurry prime to the back of every paver, right to the edges, before laying e.g. Pavestones' 'Priming Slurry'. <u>Sealing:</u> Seal the stone with Rocatex Paving & Stone Patio Sealer (this is optional for MOT installs BUT is certainly best practice and will help in preventing staining etc)	<u>Fixing:</u> Best practice - use an external grade S1 WHITE flexible adhesive – maximum adhesive bed of 20mm <u>Sealing:</u> Seal the stone with Rocatex Paving & Stone Patio Sealer. Stone must be sealed on concrete/screed pad installs to minimise water penetration.

**NB: Avignon Sandblasted can only be installed on a solid concrete base/cement screed*

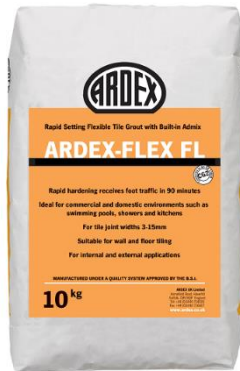
Finished Patio Height:

It is best practice that the finish height of the patio is well below the damp proof course (DPC) of the property. This should be at least 2bricks or 150mm below the DPC. Therefore, you need to calculate the total overall combined thickness of the sub-base, mortar/adhesive and the stone paver to work out the total depth of excavation.

It is also best practice to install a 'fall' onto any outdoor patio. A fall is when the sub-base is installed with a gentle gradient sloping away from the property to prevent standing water. The industry standard ratio for the fall is 1:80 (for a textured slab) however, this could differ depending on your project.

Grouting & Pointing:

There are various options for grouting or pointing outdoor natural stone.



Grout:

Our Ardex FL grout (for joints from 3mm to 15mm wide) can be used on either installation method but if an MOT base has been used, then bear in mind that grout lines may be quite deep so coverage per bag may be less. A grout calculator can be found on the Ardex.co.uk website to assist you in determining quantity required. Available in an array of colours, the most popular ones for our paler outdoor stones include Classic Vanilla, Natural Almond & Floating Driftwood.

Mortar:

Mortar Pointing is the traditional way of pointing patio stone when installed on an MOT base and can be used on any of our stones. If opting for a dark mix, we would recommend sealing the joints and edges of the stone first with an appropriate sealer (see below) to prevent potential staining from the mix.

Jointing Compounds:

Many landscapers are now using brush-in jointing compounds that are very quick to use which is great for large areas and economy. Pavestone produce a product called Pointfix often available at builders' merchants and Toolstation stock a range made by Sika in various colours. Both products have been recommended to us by installers who have used them though we have no direct experience of use.

Sealing:

For the absolute best performance of your outdoor natural stone, it should be sealed with a good quality, breathable sealant that will repel water, oil & grease and help to prevent staining. We recommend Rocatex Paving & Stone Patio Sealer and a full technical data sheet on this product can be downloaded in PDF form from each of our external stone product pages on our website. A helpful video is also available to view on You Tube – just go to Rocatex TV or click this link:

<https://youtu.be/7Kya2cDyYVs>

