Contract 18 Vitrified Paving Installation Methods

Installation Method 1 – Dry Installation Using Our Range of Paving Support Pads

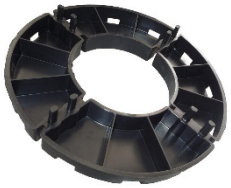
Installation Method 2 – Installation on Mortar Bed

Installation Method 3 – Traditional Adhesive Installation

Installation Method 1

Laying Contract 18 vitrified paving support pads or pedestals is particularly suited to flat roof and balcony applications where access to the waterproofing membrane may be required for maintenance. The support pad method also allows for free drainage under the stoneware. The Porcelain can be laid to follow the existing fall of the roof or they can be laid to provide a level walking surface.

We offer several types of paving support pads including plastic stackable, adjustable and rubber. Each have their own advantages depending on the size, drainage fall and threshold level of your flat roof or balcony.



Plastic Stackable



Adjustable



Low Noise Rubber

Preparation

Ensure surface to be covered is free from dust grease and all loose materials. Where appropriate ensure efficient drainage to area – recommended minimum 1:80 maximum 1:40. Inspect existing surface or roof covering and ensure that all necessary remedial works are carried out prior to work commencing.

Marking Out

Marking out of the area is very important to ensure that any cut porcelain at edges etc are maintained at their maximum size. Establish and mark the centre line in both directions for the area to be covered and measure from this line to the edge. Deduct the number of full porcelain slabs from this dimension to calculate the size of the edge slab. If the result is **more** than ½ slab width then the centre line should be used as the joint of the **two centre rows**. If the result is **less** than ½ slab width then the centre line should be used as the centre line for the **centre row of slabs**. This later operation will increase the edge porcelain slab size by ½ slab, and will give the best layout in this condition. Repeat this move in the other direction.

PLEASE NOTE:- If you have any concerns regarding your layout then we will be happy to provide a layout design service to show where the slabs will be best positioned and to calculate the approximate number of Paving Support Pads and Levelling Discs or Adjustable Support Pads you will need. All you need to do is to send us your layout dimensions and slope measurements and we will do the rest.

Laying Castle Porcelain Following the Profile of the Roof

We now have a starting point in both directions. If the intention is to follow the existing profile of the roof with the finished level of the porcelain slabs then start laying slabs from the centre line established. Lay out some Paving Support Pads (PSP) along the line and lay slabs on top, working in both directions but ensuring that straight lines are maintained in both directions. If any low points are encountered use levelling discs to bring the slab level up to that required.



When the full porcelain slabs have been laid the edge slabs need to be cut to size and fitted. Always place an additional PSP under the centre of any cut porcelain slab to reinforce. You will have to snip off or cut off the spacer lugs to achieve this.



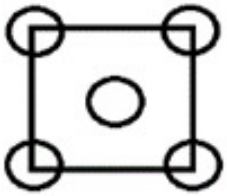
If there are any obvious high points on the roof then it may be necessary to start from that area so that the lower areas can be lifted by levelling discs. If necessary the PSP's can be stacked up to four high to overcome undulations in the roof surface. PSP's are available in 12mm and 15mm and the levelling discs are available in 1, 2 and 3mm.

Laying Extra20 Porcelain Paving to a Level Top Surface

We have a starting point in both directions. If the intention is to achieve a level top surface of the porcelain slabs then we need to start laying slabs from the highest point. If we have prepared a layout guide then this will show how many of each type of PSP are required at each Grid line. Lay out some Paving Support Pads (PSP) along the line and, starting at the highest point, lay a porcelain slab on top of the PSP's. Working from this slab, lay the next slab, check with a spirit level and adjust with levelling discs if necessary. Continue slab by slab with this method until all of the full slabs have been laid.

When the full slabs have been laid the edge slabs need to be cut to size and fitted. PSP's can be easily broken in half for use at the edges and into quarters for use at the corners. Always place an additional PSP under the centre of any cut slab to reinforce. You will have to snip off or cut off the spacer lugs to achieve this. If the edge joint is unsightly due to variation in the wall line we have expanding foam tape available which will close the gap and improve the appearance.

If Adjustable Pedestals are to be used then simply follow the above method but adjust for level by screwing the top section up or down. At edges and corners, full adjustable supports will be required, the base plate and spacer lugs may need to be cut off.

Height Of Supports	Number Of Supports	Positions
Up To 200 mm	5	

Installation Method 2 – Not Suitable For Flat Roofs Or Balconies

This method relies on carefully placing the tiles onto a levelled-out bed of standard sand/cement mortar.



The mortar bed needs to be a 6:1 or stronger mix of grit sand with ordinary Portland Cement, minimum of 20mm thick, and should be placed over a prepared sub-base or base. Most contractors are using 25-40mm thickness to ensure a bed with sufficient depth to create a rigid layer capable of supporting both itself and the porcelain tiles, although some are using considerably thicker beds, as much as 100mm.

The inclusion of a sub-base (or base) is important. For the Mortar Bed method, a 100mm deep sub-base of Type 1 material (or similar) is typical, although in exceptional circumstances a concrete base will be used. If a suitable sub-base (or base) is not installed then and the tiles are placed directly onto poor quality ground the paving is likely to fail after some time.

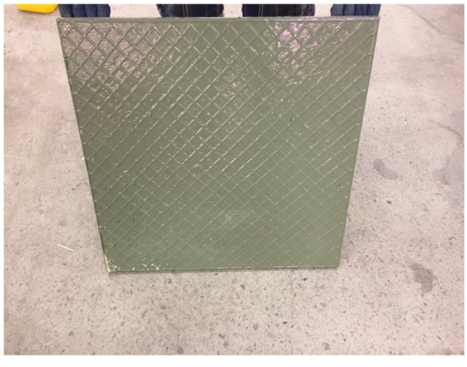
A bond bridge layer is required when laying in Mortar. We keep SBR bonding agent in stock for this purpose if required. The bond bridge should be created by mixing the SBR bonding agent into a slurry and painting it onto the back of each tile when laying

The most popular recipe uses nothing more than liquid SBR with ordinary cement. A small quantity of the SBR is placed into a bucket and then dry cement is slowly added and stirred in until the desired consistency is achieved.

The slurry should then be painted onto the back of each tile when laying. Care should be taken not to get the slurry onto the tile surface. It is good practise to check each tile for slurry marks as you lay and clean before it sets.







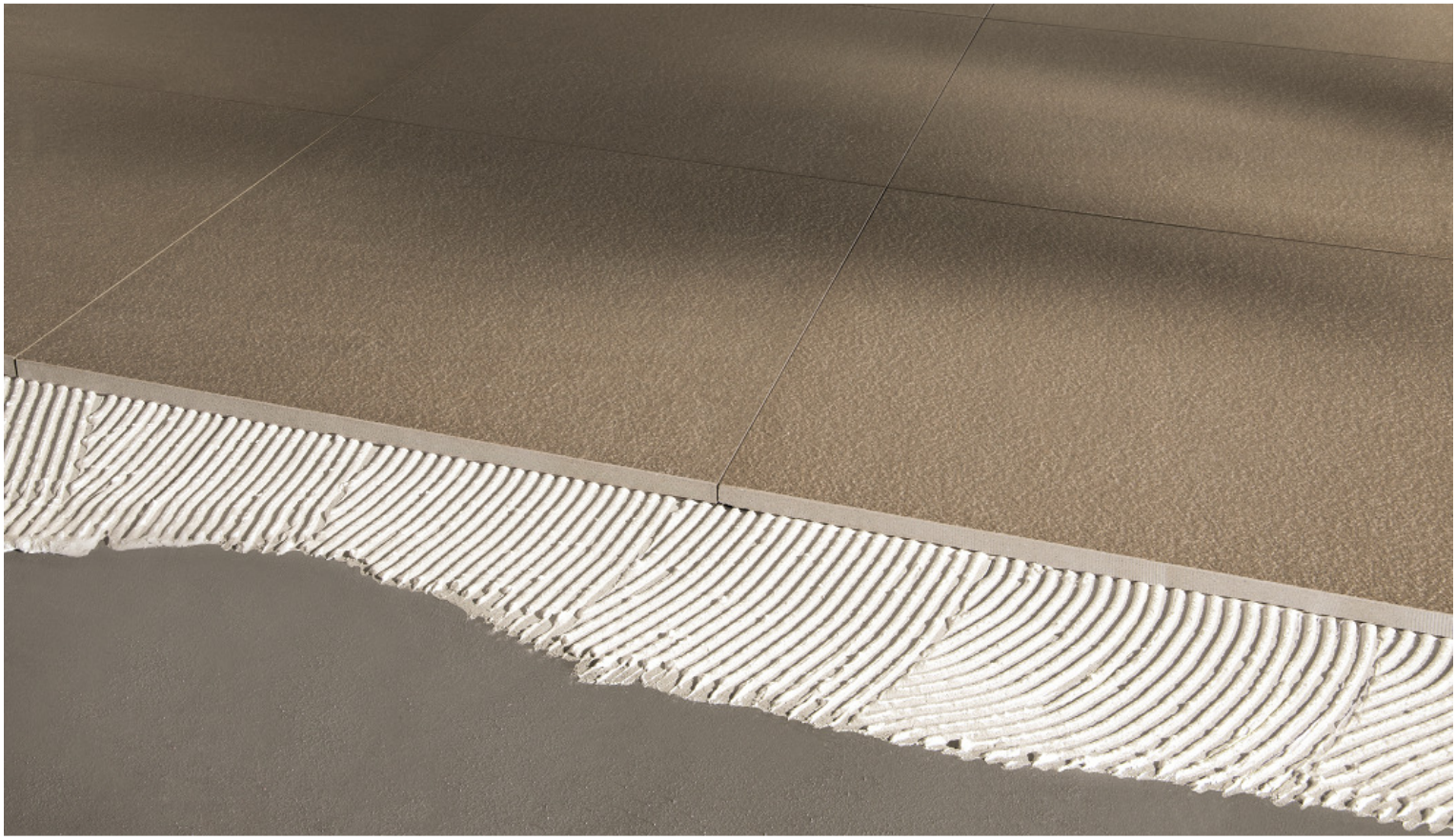
Joint spacers should be used to create a suitable gap between each tile. We recommend 4mm gaps but the external grade grout that we stock and recommend can deal with joints from 2 – 20mm wide.

Installation Method 3 – Not Suitable for Flat Roofs or Balconies

Traditional adhesive installation is extremely resistant and suitable for outdoor and indoor application that will receive regular foot traffic or heavy loads from cars etc.

When using adhesive outdoors a suitable frost resistant outdoor grade, flexible adhesive must be used. Similarly, an outdoor grade flexible grout must be used if grout is to be applied. We keep stock of standard set and quick set adhesive for external applications if required.

For more information on suitable adhesives and grouts please contact us.



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