



VITRIPIAZZA® Vitrified Porcelain Paving



Guide to Planning & Installing Vitripiazza

Welcome

There are various methods for the installation of vitrified porcelain paving. This guide has been created with our suggested installation process which will give the very best aesthetic results and assure you of the short, medium and long-term performance of the paving in the UK climate. While it's true that you can lay directly onto grass or sand, we would strongly recommend you install on the construction shown within this guide.



Planning Ahead

- Work out the dimensions of your area, use dimensions that minimise cuts. Peg it out to help you picture it. Calculate the paving you need in M² and add 10% to allow for cuts, wastage and any accidental damages.
- Consider the type of use and traffic your area will be exposed to, and design in adequate foundations to give you many years of service.
- For new or extended areas at the front of the property, consider planning permission requirements around water management and providing appropriate drainage to avoid run off onto the public highway. Alternatively, our Resiscape system range can be installed as a fully SuDS compliant option.
- For when digging out, consider where your services are, e.g., drains, underground and overhead cables.
- Consider how deep you need to dig depending on your specific site and how high the water table is.
- Consider if tree roots are an issue.
- Consider where you can store and stack the product during install, where will you have your mixer and aggregates. Don't forget your skip.
- Remember, groundwork and installation are heavy work. Ensure you have the appropriate PPE and tools for the job.
- Fully read our Understanding Vitripiazza guide for more tips and advice, particularly, if you are inexperienced in installing our porcelain ranges.
- Before embarking on a DIY project, research other sources and techniques, if in any doubt, ask an expert for advice.
- This guide is our suggested methods, there are many others out there. Where there is a specific product guidance, this is borne from our experience with our products.
- Product specifications, with design guidance, are available on request through your merchant.



Vacuum Lifters

With the larger plan sizes in some of our ranges, its simply not possible for installation to be carried out by one person and we would recommend you look into hiring or purchasing appropriate vacuum lifting equipment.

For ease of installation even on the smaller plan sizes, consider if using vacuum suction lifters are of benefit to you, you can purchase reasonably priced single operator tools too. Though not essential with weights manageable for one person, they can make life easier, particularly if you are installing with minimal joint sizes.



Plan Your Levels

- Think ahead, regarding the finished levels of your paving. The paving surface must always be a minimum of 150mm below the damp course (DPC), if installing up to your house.
- Always incorporate a fall to allow water to run off the paving surface to adequate drainage. For most domestic settings, 1 : 60 is usually adequate.

Groudwork & Foundations

- Dig out to allow for sub-base depth + laying bed depth + paving depth.
- Commonly for a garden patio, a compacted 100mm 150mm sub-base is adequate. Commonly for a domestic Guidare driveway, a compacted 150mm – 200mm subbase is adequate. For example, if you were installing a 20mm thick paver, on a domestic patio with a 100mm sub-base and 30mm mortar bed, you'd need to dig down approximately 150mm.
- Paving Mortar Bed Compacted sub-base
- Remember to account for the required gradient too when digging out.
- Saturated ground may need to be allowed to dry out. For certain ground conditions a geotextile membrane maybe required to stop migration of the hardcore sub-base into the sub-grade.
- Infill your sub-base. MOT Type 1 (DTp 1) is generally appropriate for most domestic installations. On rare occasions, some ground conditions may require consideration of a Hydraulically Bound Material (HBM) instead to create a fully bound/rigid construction. HBM's are specially sourced aggregates mixed with a binder that then hardens.
- Rake out your MOT Type 1 evenly, damp it down before compacting, easiest and most effective with a Vibrating Plate Compactor. Fully compact in layers of approx. 75mm until desired depth is reached, including your required gradients.



Vitripiazza Patio Paving Laying Guide Before You Start

- Check your product, ensure it is to your expectations. Never lay products that are not to expectations, report them to your merchant straight away.
- Check each pallet is from the same production batch and shade reference. Do not start the project without confirming all are the same.
- It's not a bad idea to keep a note or take a photograph of the batch code, in case, you ever need it again.
- Even with matching batches, it is still best practice to mix from several pallets at a time to achieve a natural blend. Protect edges when stacking them pre-laying.
- Do not lay in temperatures of 5°C and falling.

Laying

- Set out stringlines as a guide when laying, check lines and levels regularly.
- Make up a slightly wet mortar mix. Five or six-parts building sand to one-part cement is usually adequate for patios. A good guide is that there should be sufficient water to allow the mix to be moulded into a ball without falling apart, but not so much that water would run out of it were it to be squeezed in the hand. Remember, it shouldn't be so wet that it cannot support the weight of the tile or so dry, it won't bond to the back of the tile and/or can't be tapped down to the desired level.
- You may wish to consider adding a plasticiser to the mortar mix to increase workability and reduce water demand.
- Always prepare a full bed of mortar for each slab so it tamps down to approximately 30mm. It must support the entire slab.



- Never spot bed or ring bed!
- Always apply Pavetuf Slurry Primer to the back of the tile, immediately prior to laying, to aid adhesion to the bed.
- Consider potential print repeats. All of our ranges have a significant number of pattern print connotations within a pack but try not to lay matching prints side by side or in the same orientation.
- Place the slab and tap down using a rubber mallet or alternatively, use a vibration hammer. Check the level to your stringlines or using a spirit level.
- Repeat with each individual slab to your chosen laying pattern and maintaining your joint widths.
- Never butt joint! Joints should be a minimum 3mm or 6mm, depending on whether your slabs are rectified or unrectified.

Cutting

- Be aware, cutting vitrified porcelain is trickier than all other paving types, even for the experienced.
- Use a specialist porcelain blade with a continuous diamond tipped rim with an appropriate powered disc cutter. Those with a water feed are ideal in order to suppress dust, keep the blade cooler and lengthen the blade life.
- Blades will dull quicker than when cutting other paving types. Blunt blades will affect the quality of the cut. Some people run the blade through a softer product like breeze block or CBP between cuts to help maintain it.
- Keep vibration to a minimum whilst cutting, consider cutting on a bed of sand is one method.
- For intricate work, it may be best to try and use the smallest cutting wheel you have in your toolbox to cut down on vibration.
- Note! 'Colour-bodied' porcelain does not cut as neatly as the 'Full-bodied' porcelain. You may get better results using a 4" angle grinder or 7" or 9" bench cutter, particularly for lots of cuts or intricate work. The smaller wheel cuts down on vibration and should achieve a neater finish.



After Laying

- Do not walk on the paving for at least 24 hours.
- Point as soon as possible, once you can walk on the paving.

Jointing/Pointing

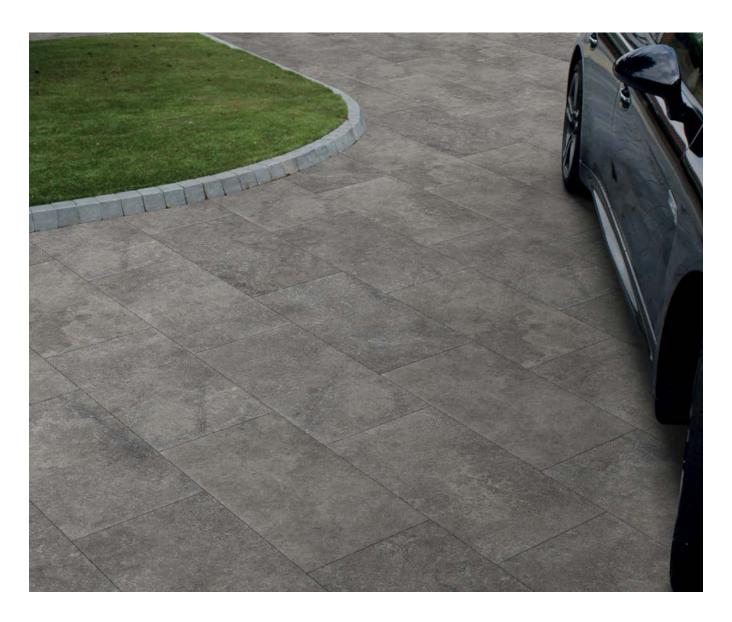
- For Rectified ranges, you can lay with joints upwards of 3mm.
- For Unrectified ranges, we recommend you lay with joints upwards of 6mm.
- For a jointing product specifically designed for porcelain paving, use our Pavetuf Jointing Grout, appropriate for traffic up to domestic cars and small van weights. Suitable for joint widths of 3mm 15mm.
- For use on patios and driveways, a stronger, rapid setting mortar that is suitable for all paving types, use our Pavetuf Jointing Mortar. More suited to professional installers, for joint widths of 3mm 50mm; and maximum depth of 200mm.
- Whilst our other two solutions above are more ideal for use with porcelain paving, on patios and paths, for easy, all-weather joint filling on all our paving ranges, you can use Pavetuf Jointing Compound. For joint widths of 5mm 20mm, minimum depth of 20mm. This is not suitable for fully rigid sub-bases, e.g., concrete bases; and you must ensure you follow the specific product guidelines regarding the degree of permeability required in your mortar bed.

	Jointing options Comparison Cha	rt	Jointing Compound	Jointing Grout	Jointing Mortar		
Use	Use on Porcelain & Ceramic		0	Ø	0		
	Use on Stone & Concrete		0		0		
	Driveway applications			0	0		
	Pedestrian applications		0	O	0		
	Internal use			0			
	External use		0	Ø	0		
ish	Smooth finish			0			
Finish	Granular finish		0		0		
		Colour Options					
	Jointing Compound						
	Jointing Grout						
	Jointing Mortar						

For full details on all of the jointing options please refer to www.pavetuf.com

Domestic Driveways

- Only our Guidare is recommended specifically for Driveway use without a concrete construction. See table on Page 10 under Specific Product & Technical Guidance.
- Our Full-Bodied ranges can be used for driveway products for trafficking with domestic cars or light vans but they will require installing on an adequate concrete base and supporting construction. The paving should then be bonded to the concrete base using a high-performance cementitious tile adhesive appropriate for this type of traffic. Talasey are unable to give specific adhesive recommendations so seek guidance from the adhesive manufacturer for specific advice. The Colour-Bodied ranges are not recommended for driveway use.
- Paving surfaces may exhibit tyre marks, particularly lighter colours, and particularly when under braking and power assisted steering. Our Pavetuf Deep Cleaner is designed for this type of cleaning.
- Both Pavetuf Jointing Grout and Pavetuf Jointing Mortar are suitable for use on driveways, when laid on a mortar bed, as above.
- Specific consideration is required on the entire foundation and construction for the potential traffic and it is the responsibility of the user to check its adequacy.



Check our Landscaping Portfolio for which ranges are available to order in thinner specifications, designed specifically as indoor tiles.



Around Swimming Pools

All our Vitripiazza ranges are suitable for use around a swimming pool.



Cladding

Whether using our specific Wall Cladding ranges, such as Mattoni, Gabbia, Nerali & Rok or wanting to clad using a paving tile, for external use, we recommend using a good quality C2 Tile Adhesive. Always take advice from the manufacturer to help select the best product for your specific needs.



Specific Product & Technical Guidance

- **Full-Bodied** all our Italian ranges are Full-Bodied, giving a neater cut and if an edge is chipped during install, it is unlikely to draw the eye. These ranges may be considered for driveway constructions, see Domestic Driveways advice above.
- **Colour-Bodied** Bellstone, Traverta, Plank, Dusk and both Cava ranges are all colour-bodied. Whilst very durable once laid with very similar long-term properties to the Italian ranges, they do not cut as neatly as Full-Bodied and the edges need greater care during handling and install. These ranges are not recommended for driveway constructions.

Type of Use		Other Design Considerations	Laying Course	Other Advice
Domestic drive - Cars only	&	Limited need for power assisted turning	40mm sand screed*	Always use Guidare spacers. Purchase required, not supplied as standard. Do not use a vibrator plate on paving, level off with a Pavers Maul.
Domestic Drive - 4x4's / Light Vans	OR	Heavy power assisted turning areas	50mm mortar bed, minimum 4:1	Always use Pavetuf Priming Slurry on underside.
Commercial Use Driveways		N/A	-	Not appropriate for use for commercial weight vehicles.

• Guidare is appropriate for driveways. See table below for specification recommendations:

*For installing on a sand screed, follow our Natural Stone Block Paving section on page 9 of the Natural Paving Planning & Installing Guide or visit our knowledge hub on **www.vitripiazza.co.uk**

All the above advice is purely for guidance purposes, and only with domestic installations in mind. Local building regulations should be followed at all times. Designing an appropriate construction for specific project requirements lies solely with the user. If in doubt, ask a local expert.

Health & Safety

HEALTH AND SAFETY MUST BE ADHERED TO. A number of items within our Vitripiazza product range are heavy or awkward in shape to lift. We recommend that when moving pieces over 25kg, more than one person helps in completing the lift. With the larger plan sizes in some of our ranges, its simply not possible for installation to be carried out by one person and in addition, we'd recommend you look into hiring or purchasing appropriate vacuum lifting equipment.

Furthermore, we would also recommend that gloves, safety boots with steel toe caps and oil resistant soles, ear defenders and protective clothing should be worn. When cutting our products, it is essential that suitable eye and ear protection is also worn. Always ensure that suitable respiratory protection is worn to avoid the inhalation of dust particles produced by high-speed cutting devices. Training may be needed to operate certain equipment; it is your responsibility to ensure this takes place where necessary.

For further information on Health & Safety, please visit the knowledge hub on **www.vitripiazza.co.uk.**

It is your responsibility to ensure that you comply with all applicable health and safety legislation and guidelines.





www.vitripiazza.co.uk

For further information or technical advice call 0330 333 8030 Distributed by Talasey Ltd www.talasey.co.uk





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