

ADPED FIXING GUIDE

PORCEL **QUICK**

PorcelQuick Adpeds

For fixing 18mm or thicker porcelain tiles to external areas subject to foot traffic.

Benefits

The Adped system has been designed to speed up the installation process and reduce costs, fixing materials and carbon footprint.

- ✓ Lessen the risk of back ache by reducing loading out requirements for the fixing bed by over 80%.
- ✓ Reduce carbon footprint by up to 80%.
- ✓ Shorten installation times.
- ✓ Cut installation costs.
- ✓ Strong, able to take loads of 1000kg.
- ✓ Resists structural movement.



All this is backed by the PorcelQuick Adpeds System Guarantee.



To view our installation video please go to www.porcelquick.com

Tool and material requirements

Suggestion of required tools:

- a. PorcelQuick Grout Backer application tool
- b. Chalk line or marker spray paint (looks different to standard spray paint)
- c. Tape measure
- d. Straight edge
- e. Level
- f. Trowel
- g. Wooden or rubber mallet
- h. Grouting squeegee

Suggestion of required materials:

- i. Sharp sand
- j. Fast setting cement
- k. Adpeds
- l. Grout Backer Rod
- m. Tile Grout
- n. C2 Tiling adhesive
- o. 18mm+ porcelain tiles



Preparation

The PorcelQuick Adped system is designed to be fixed to prepared permeable sub bases.

Correct preparation of the sub base and sub grade is essential for a successful installation. It is important that the sub grade is free draining. A suitable geotextile should be laid on top of the sub grade. A minimum sub base of compacted 100mm MOT type 1 (DTp1) or crusher run of similar sizing should be installed on top of a geotextile layer. The sub base should meet current best practise standards and be self draining.

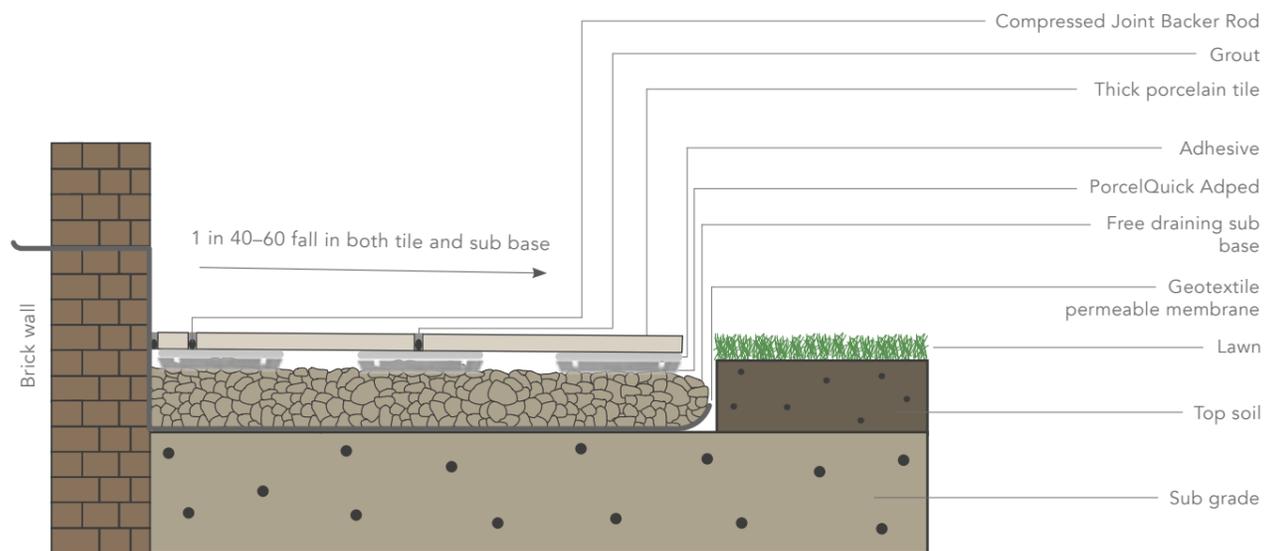
It is important that the sub base should self drain. If in doubt use MOT type 3 (DTp3) or 20mm open

pore graded crushed rock.

The surface of the sub base should run parallel and not deviate from the finished floor level by more than 1cm in 100cm and should be laid to a single fall of between 1 in 60 and 1 in 80.

Please note: the porcelain tiles fixed with the Adped system will drain along the falls created in the installation and allowance should be made for suitable drainage. It is also important that accidental water ingress in the void underneath the tiles will self drain through the sub base. (See Figure 1).

Figure 1. Sub base should be laid to falls.



Please note: PorcelQuick Adpeds when fixed will have a height of between 25mm–35mm plus 3–5mm of adhesive and the tile. Therefore the top of the sub base should be 48–60mm below the required finished floor height for a 20mm porcelain tile. Adpeds can be stacked up to three high to form a pedestal up to 75mm high.

Laying out

The Adpeds must be laid to the correct levels with the concrete infill fully set prior to fixing any tiles.

Pedestals are only required under the four corners of the tile unless the following criteria are met when an additional pedestal is required under the centre of the tile;

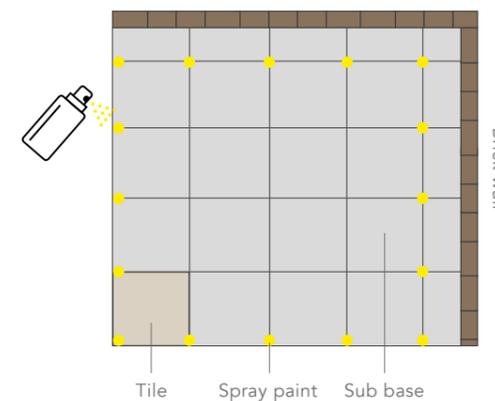
1. The tile is square and larger than 650 x 650mm.
2. If the area is going to be subject to heavy foot traffic and the tile is larger than 470 x 470mm.
3. Where the pedestal height is over 70mm.

Oblong tiles and planks are best laid to a stack bond pattern with an additional pedestal on long edges exceeding 650mm.

Set out by marking the position of each tile on the perimeter of the area to be tiled with spray paint, including the grout joint which must be between 3mm–10mm (Figure 2). Use chalk to ping lines between the spray paint markers to create a grid (Figure 3), and mark where the position of the tiles join onto your base with spray paint (Figure 4). This is where you will be fixing your Adpeds. Mark additional Adpeds as required due to the size of the tile or because of the heavy foot traffic.

Please note: grouting the tiles requires the use of a compressible PorcelQuick Grout Backer Rod. This comes in three diameters, 6mm, 10mm and 13mm, which need to be compressed into joints of 3mm to 4mm, 4mm to 8mm or 8mm to 10mm.

Figure 2. Plan the layout of your tiles, marking edges using spray paint.



Please note: to see different Adped layouts, refer to 'Adped tile layouts' at the back of this guide.

Figure 3. Use chalk to ping lines between the spray paint markers to create a grid.

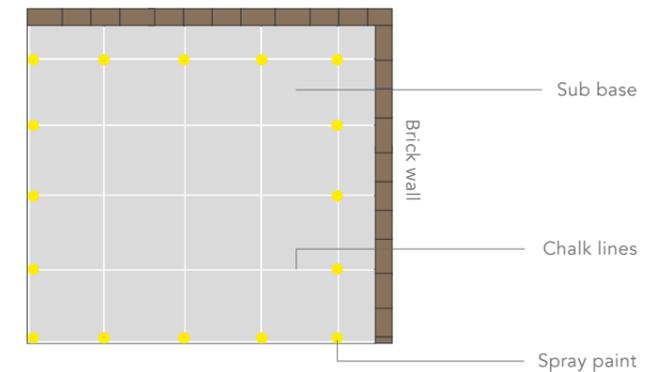
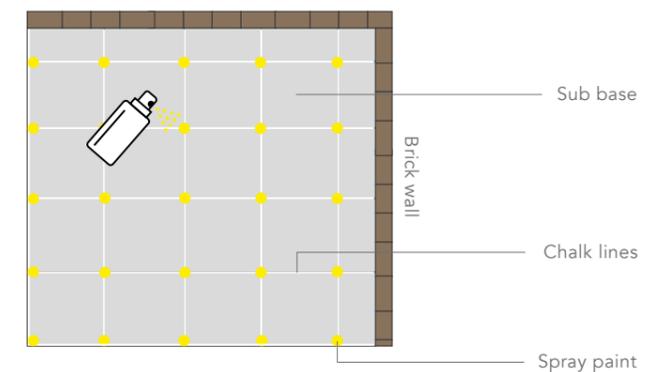


Figure 4. Mark the position of the tile joints onto your patio with spray paint.



Fixing the Adpeds

The infill for the Adpeds should be a 4 to 1 mix of fast setting cement and sharp sand. Adpeds should be filled to the top then levelled.

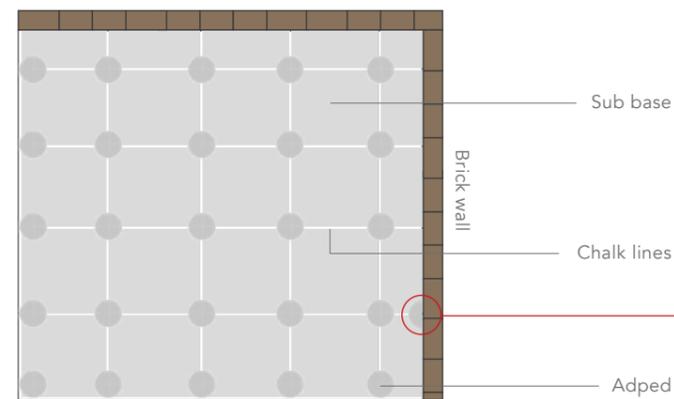
At the high point of the patio fix your first Adped allowing 3–5mm for the adhesive bed plus the thickness of the tile. Fix the Adped at the low point of the patio allowing for a suitable fall. Using a straight edge as a gauge fix the Adpeds between the high and low points.

For Adpeds perpendicular to the fall line, lay level until all are fixed.

The layout of tiles might result in there being insufficient room at edges for full Adpeds. In these circumstances the Adpeds can easily be snapped into half or quarter sizes for easier placement. (Figures 5 and 6).

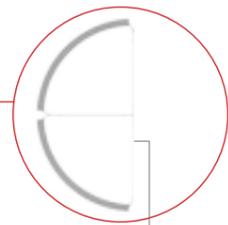
- The finished surface should drain away at a fall of between 1 in 60 to 1 in 80.
- Do not install if the ground is frozen or the air temperature is below 5 degrees centigrade.

Figure 5. The Adped can be snapped in half to be placed parallel against a wall.



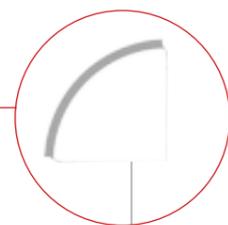
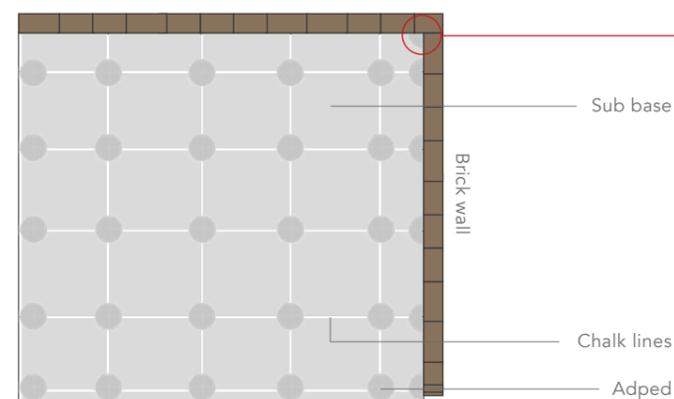
PRO TIP

Put a trowel full of the screed mix down on the sub base first, and press the Adped into it before filling the remainder of the Adped.



Adped snapped in half

Figure 6. The Adped can be snapped in to quarters to be placed into corners.



Adped snapped into quarters

Fixing tiles

Once the Adped fill has hardened (it does not need to be dry) the tiles can be laid. The tiles can be laid with any proprietary grey C2 cement based tile adhesive suitable for external use. Use a fast set or standard setting adhesive depending on conditions.

Please note: porcelain tiles are impervious and standard mortars will not adhere. C2 cement adhesives with polymer admixes must be used to ensure adhesion.

Lay a 5mm bed of adhesive onto the tops of the Adpeds and space the tiles between 3mm–4mm apart if using 6mm PorcelQuick Grout Backer Rod, 4mm–8mm if using 10mm and 8mm–10mm if using 13mm Grout Backer Rod.

Figure 7. Lay a 5mm bed of adhesive onto the tops of the Adpeds.

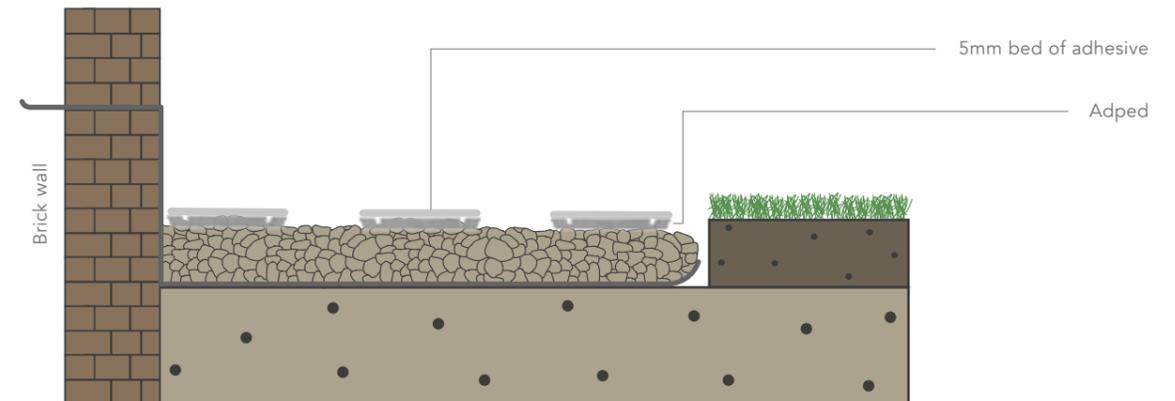
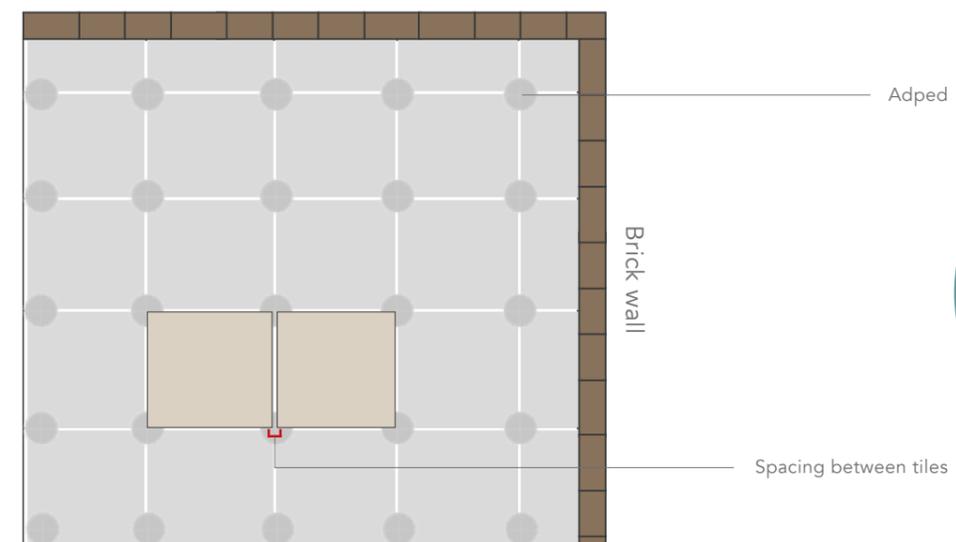


Figure 8. Space the tiles appropriately according to width of PorcelQuick Grout Backer Rod.



PRO TIP

Brush the surface of the set Adped before applying adhesive to clear away any debris.

Grouting

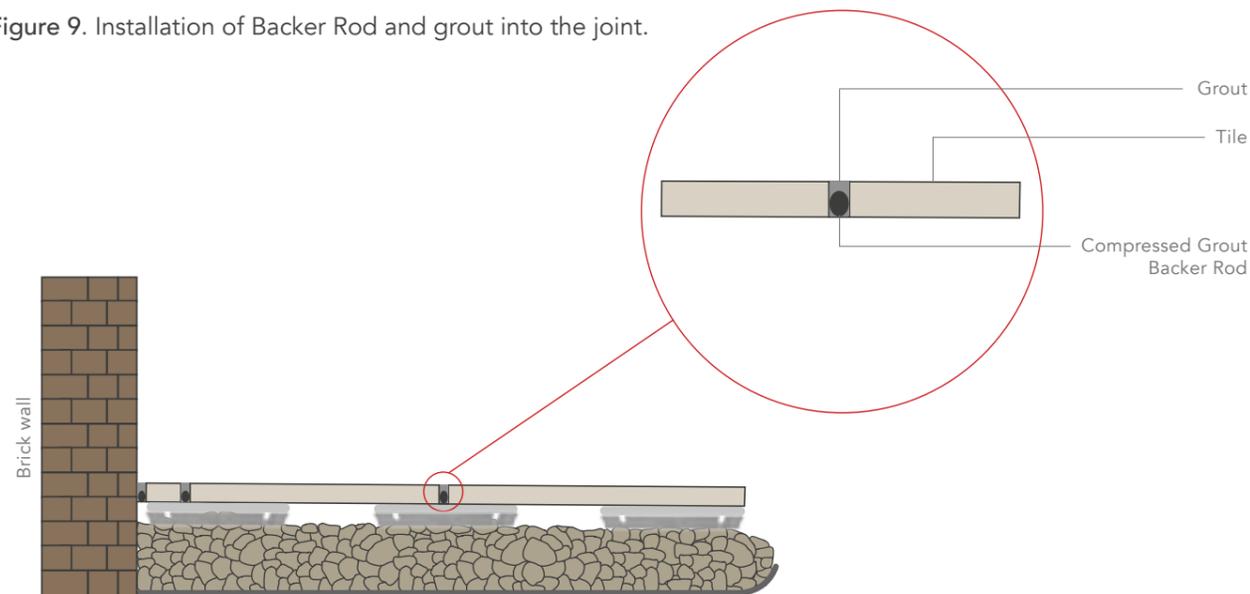
As soon as the adhesive has set grouting can commence. The first step is to insert the PorcelQuick Grout Backer Rod into the grout joint. See Table 1 for correct Backer Rod and joint widths. The Grout Backer Rod should be compressed into the joint so the top of the Rod is 5–10mm below the surface of the tile. Select a polymer enhanced grout to ensure adhesion with the porcelain tile.

Grouts with polymer additives are commonly called flexible grouts. Always follow the manufacturers

recommendations and make sure you leave the grout joint flush with the top of the tile and avoid eroding the joint during cleaning.

Please note: the grout joint will have a tendency to go a grey colour over time so we suggest grouting with medium dark greys, browns or mortar colours and avoid whites, creams and lighter colours.

Figure 9. Installation of Backer Rod and grout into the joint.



Please note: modern tile grouts contain polymers which enhance adhesion. It is important that any residue is removed from the tile or it will set as a clear film which will attract dirt. External porcelain normally has a slip resistant surface which can make removing the grout more difficult, particularly if it is a sunny day when the grout can 'flash dry' on the hot surface of the tile. Therefore on hot or sunny days avoid using fast setting grouts.

Table 1. Correct Backer Rod and joint widths for grouting.

Width of Grout Backer Rod	Width of Joint
6mm	3mm–4mm
10mm	4mm–8mm
13mm	8mm–10mm

Finishing and maintenance

The sharp sand and cement bed in the Adpeds, tile adhesive and grout will all take some time to reach maximum strength, and this can take longer in cold weather. Check with the manufacturers to see when the initial full set is reached and avoid walking on the surface until this has been achieved. Typically allow 18–24 hours before foot traffic is allowed on the finished surface.

Porcelain tiles are frost proof, stain resistant, will not fade, and are very hard. They will generally only require sweeping and occasional washing down.

They should not require sealing. Leaf residues or scuff marks are best removed with alkali cleaners (such as bleach), while rust marks are best removed with acid based cleaners. Always test clean an inconspicuous area first and check the porcelain manufacturers recommendations.

Porcelain tiles can be jet washed, but care should be taken that jet washing does not damage the grout joints. Test areas first and ensure the jet spray is applied at a shallow angle and at right angles to the tile grout joint.

Technical details

Adpeds	
Material	High impact polystyrene
Dimensions	25mm high, radius at top 125mm, radius at bottom 120mm
Volume per Adped	0.00116m ³
Approx dry weight of sharp sand and cement to fill one Adped	2.27kg
Approx dry weight C2 cement based adhesive per Adped at 5mm	0.45kg
Weight of Adped	.036kg
Packaging	40
Storage	Store in original container in cool dry conditions away from sunlight

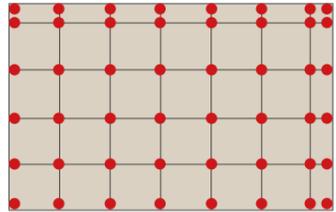
Joint Backer Rods 6mm, 10mm & 13mm	
Material	Compressible, flexible closed cell polyethylene foam cord
Thermal conductivity	0.04 w/mK @ 20 degrees celsius
Density	35kg/m ³
Water vapour transmission	< 4g/m ² /20mm
Stability	Does not rot, physically and chemically neutral
Heat shrinkage	After 96 hours @ 80 degrees celsius less than 1%
Storage	Store in original container in cool dry conditions away from sunlight

Stainless Steel Trims	
Material	316 Stainless Steel
Packaging	Packed in tens, with each trim covered by a removable plastic coating

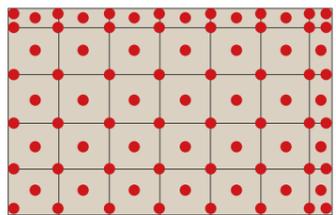
Adped tile layouts

Adped layouts for square tiles:

Under 650mm square.

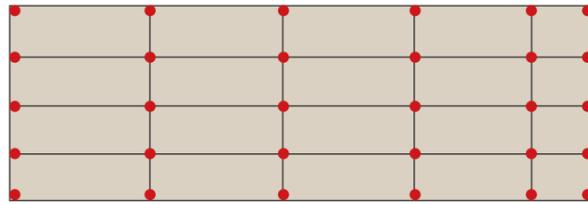


Over 650mm square, heavy foot traffic or if pedestal is over 70mm high.

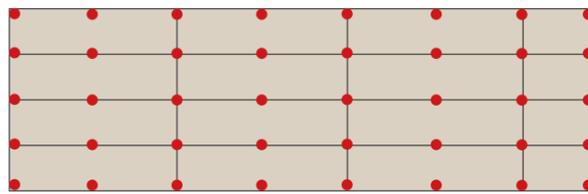


Adped layout for oblong or planks laid stackbond:

Long edge less than 650mm.



Long edge greater than 650mm.



Additional links

For further information on PorcelQuick systems and products, please visit www.porcelquick.com, or call 0333 355 0059

Recommended Suppliers

Ardex – fast setting cement mixes, tile adhesives and grouts: ardex.co.uk

BAL Adhesives – BAL Protective Sealer, tile adhesives and grouts: bal-adhesives.com

Norcros – tile adhesives and grouts: norcros.com/our-businesses/united-kingdom/norcros-adhesives/

Bostik – tile adhesives and grouts: bostik.co.uk/construction/category/Professional-Tiling/2

Lithofin – cleaners: lithofin.co.uk

Screw Fix – suppliers of chalk line: www.screwfix.com/p/dewalt-metal-body-chalk-line-reel-30m/8685p and marker spray paint: www.screwfix.com/p/no-nonsense-line-marking-paint-yellow-750ml/48952



HTW Ltd. T/A PorcelQuick, Hollybush Lane. Ash Vale, Hampshire, GU11 2PX United Kingdom