

A photograph of a modern outdoor patio area. The patio is paved with large, light-colored rectangular tiles. A brick wall with a mix of red and brown tones forms the background. Large glass doors and windows with dark frames are visible, reflecting the sky and clouds. A green, dome-shaped grill on a black metal stand is positioned on the patio. To the left, a modern kitchen with white cabinetry and a countertop is visible through an open glass door. The overall scene is bright and contemporary.

# 20mm OUTDOOR PORCELAIN TILES INSTALLATION GUIDE



# WHY 20MM OUTDOOR PORCELAIN TILES?



## Transform an outdoor space with 20mm outdoor porcelain tiles

A step up from the usual landscaping paving slabs, outdoor porcelain tiles offer a modern, sleek look that brings interior design to the outdoors. With a thickness of 20mm, outdoor tiles are ideal for patios, terraces and pathways and will transform outdoor living.

Outdoor porcelain tiles offer many features and benefits including a durable, scratch resistant and weatherproof surface requiring very little maintenance. Sealing is not required as the non-porous nature of porcelain tiles makes them resistant to staining, algae and mildew. This also results in them being very easy to clean. Safe even when wet thanks to a high slip resistance, porcelain tiles are an ideal solution to any outdoor living space.

## Installation methods

There are several installation methods for 20mm outdoor porcelain tiles.

This guide uses a compacted stone sub base, bedding mortar, slurry and external grout for installation.

## Why use outdoor tiles?



Resistance to temperature and weather changes



Frost resistance



Load resistance



Scratch resistance



Resistance to staining and chemicals



Easy to assemble and disassemble  
\*May differ depending on installation option used



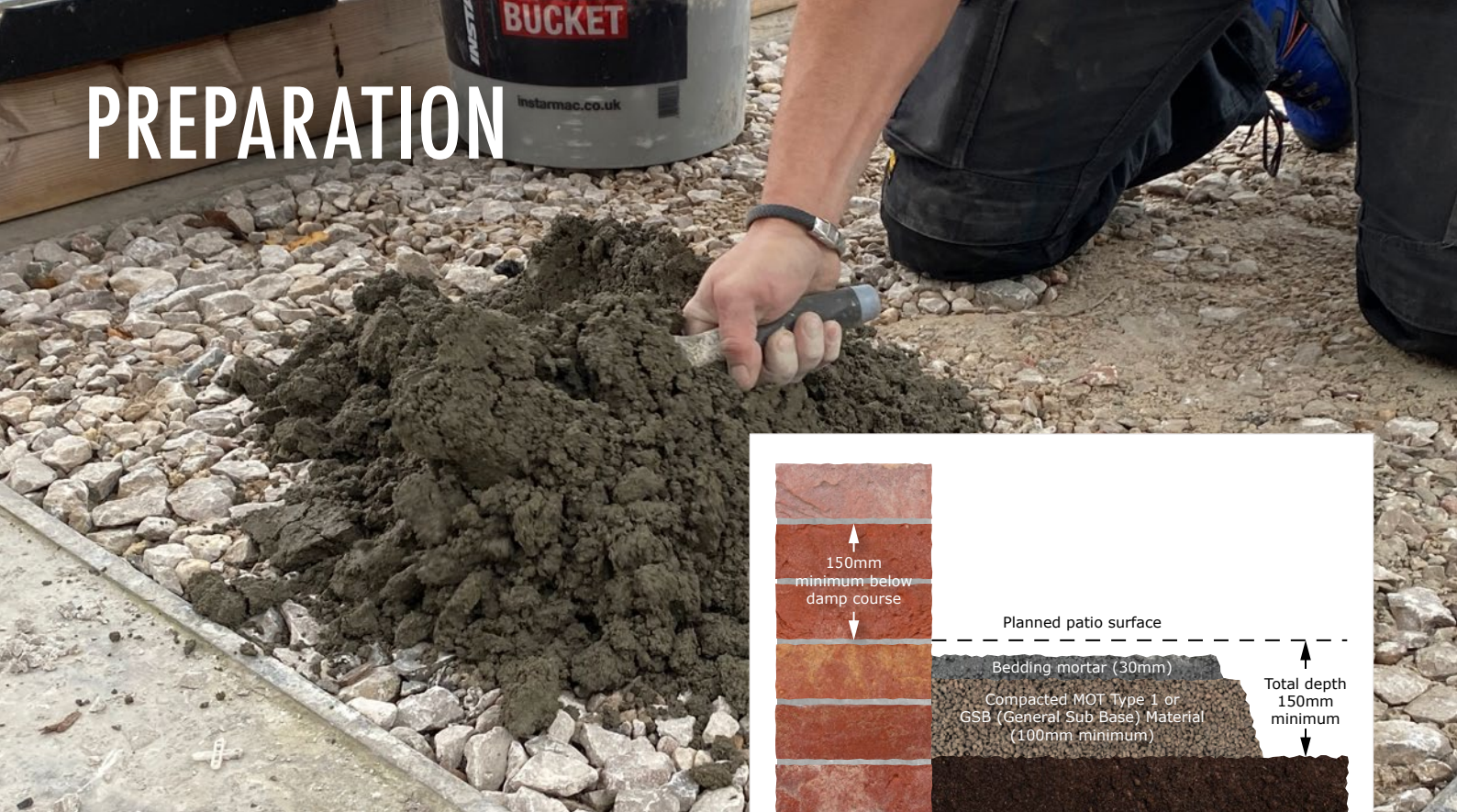
Easy to clean both dry and wet



Slip resistant surface



# PREPARATION



## 1) Mark out the patio area

Allow 150-200mm for kerbing or haunching should the patio not join a solid construction such as a house or garden wall.

## 2) Dig at least 150mm depth below the proposed height of the patio

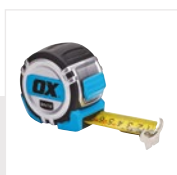
This is to allow 100mm minimum compacted MOT Type 1 or GSB (General Sub Base) material, a 30mm minimum bed of bedding mortar and the 20mm porcelain tile.

Building regulations state that the paving must be 150mm below any DPC (damp-proof course) so that it protects the house from damp.

The patio must have suitable water drainage, such as a 15mm fall in the sub base for every 1000mm. This can be achieved by using a tense string line to guide the alignment along the length of the paving. Ensure that the sub base is no less than 100mm depth at any point when incorporating the fall.

## RECOMMENDED TOOLS

Available in-store at CTD Tile Showrooms and online at [ctdtiles.co.uk](http://ctdtiles.co.uk)



### OX Tape Measure

5M D11011  
8M D11012

Alternatively the installation of a linear drain system would allow for a seamless transition between the internal and external floors.

## 3) Compact the sub-base

The use of a MOT Type 1 or GSB material is required to give the strength and stability to the patio.

Rake out the aggregate to create an even layer, then use a compacting plate to compact the loose aggregate to a compressed height of 50mm below the string line, ensuring a 100mm depth of material.

## 4) Mix and apply the bedding mortar

Using a mixer, mix the sharp sand and cement 4-parts sand to 1-part cement. This should be a firm consistency, not sloppy or runny.

Apply the mortar to the sub base levelling it out to a height of 20mm below the string line, ensuring a 30mm minimum depth of mortar.

Ripple or roughen the surface to allow for better coverage of the porcelain tile.



# INSTALLATION



## 1) Prime the paving using slurry

Put 7 litres of water in a suitable container or bucket, add the slurry powder into the container and mix for 3 to 5 minutes so that it creates a smooth and lump free slurry.

Using a brush or roller apply 1–2mm of slurry onto the back of the tile and place immediately onto the bedding mortar ensuring wet on wet contact, lifting if required to check full coverage is achieved.

Allow a 3mm minimum joint, up to 20mm maximum between tiles (if using ProPave grout, other brands may differ).

## 2) Knock down the paving with a rubber mallet

To aid full coverage and adhesion to the bedding mortar, check that the tiles are level using a spirit level.

Allow the paving to fully cure (approx. 24-48 hours\*) before grouting.

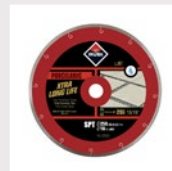
## Cutting 20mm Outdoor Porcelain Tiles

Outdoor porcelain tiles should only be cut using a continuous rim diamond blade (bench or handheld cutter) and water-fed for dust suppression and cooling.

### Recommended tools include:



**Rubi DV-200**  
Electric Tile  
Cutter

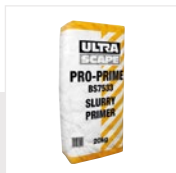


**Rubi SPT Premium**  
Diamond Blade

\*Depending on conditions and products used. Sand/cement mortar may take up to 4 days to fully cure. Check manufacturer recommendations before grouting.

## RECOMMENDED TOOLS

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**20kg UltraScape**  
**Pro-Prime**  
**Slurry Primer**  
C3058



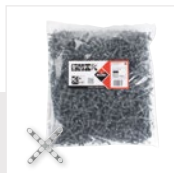
**Rubi Electric**  
**Mixer**



**38L Yellow**  
**Gorilla Tub**  
D2819



**Job Done**  
**Multi-Purpose**  
**Block Brush**  
D10967



**Rubi Tile Spacers**  
**(100 pack)**  
3mm D3144  
4mm D2760



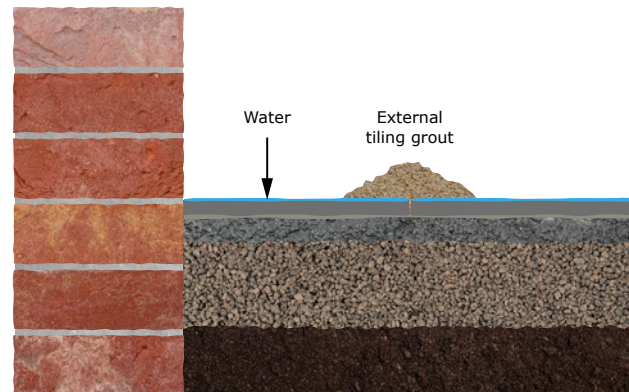
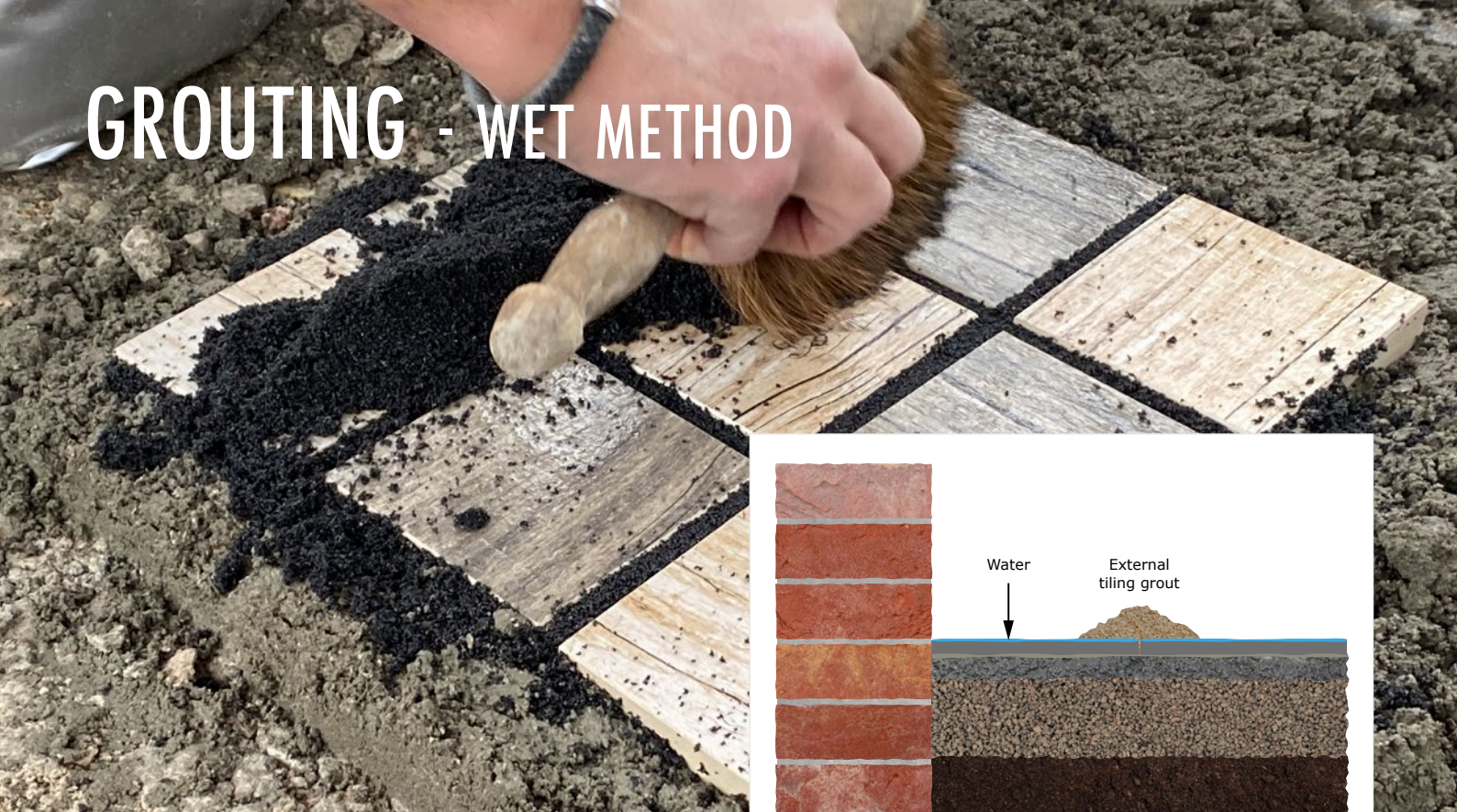
**500g Rubi White**  
**Rubber Mallet**  
D522



**OX Pro Levels**  
600mm D11016  
1200mm D11017  
1800mm D11018



# GROUTING - WET METHOD



The wet method of grouting is recommended when permeable bedding materials have been used in installation. This method makes it easier to apply the grout and allows the product to move deeper into the tile joints. This will also protect the tiles from oils and aid cleaning after application.

## 1) Ensure that the paving is clean

Remove any dust and bedding mortar that may be sitting proud of the grout joint.

## 2) Thoroughly soak the tiles using water

This ensures that no oils will penetrate the tiles, eases application, helps get the grout deep into the joint, and aids removal of excess material.

## 3) Pour the outdoor tile grout over the tile joints evenly

Use a brand new stiff brush and brush the grout into the joints diagonally. Ensure that the paving and grout is kept wet throughout jointing.

## 4) Repeat until the paving is fully grouted

Make sure to remove any excess material before it hardens on the tiles.

## 5) Leave for two hours then compact joints with a pointing trowel

To achieve the perfect flush finish, once brushed into place and left for two hours, compact the joints with a pointing trowel or joining iron.

If the joints now need topping-up, pour more grout over the joints, brush in and compact as required.

## 6) Spray the paving with water and brush away any excess material

ProPave grout is walkable after 24-48 hours (depending on conditions) and will reach its full strength after 28 days.

## RECOMMENDED TOOLS

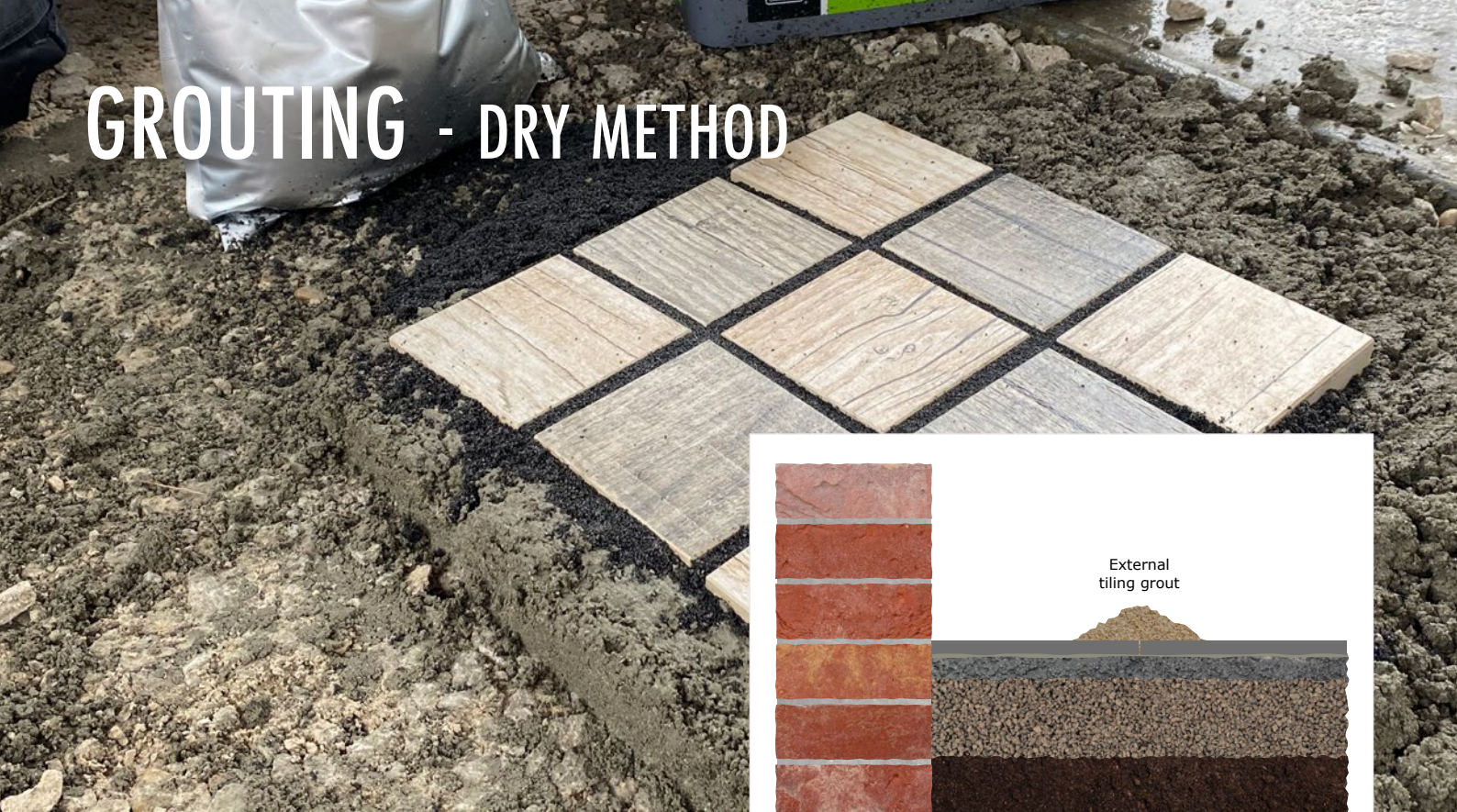
Available in-store at CTD Tile Showrooms and online at [ctdtiles.co.uk](http://ctdtiles.co.uk)



15kg **UltraTileFix ProPave**  
**External Tile Grout**  
Natural Cashmere C3132  
Storm Grey C3131  
Cosmic Black C3130



# GROUTING - DRY METHOD



The dry method of grouting is recommended when impermeable bedding materials have been used in installation, and therefore will not allow drainage of application water. This method may also be used when temperature conditions are below 3°C, and the water application (via the wet method) may freeze and expand in the joint before it has drained away.

## 1) Pre wet the surface with a mist of water

This will prevent any staining of the paving.  
Do not over-wet the joints.

## 2) Pour the outdoor tile grout over the tile joints and brush in as you go

## 3) Compact joints with a pointing trowel

Using a pointing trowel or joining iron will allow the loose material to be pressed into the joint.

## 4) Top up the joints after they have been compacted to the suitable level

If the joints need topping-up, pour more grout over the joints, brush in and compact as required.

ProPave grout is walkable after 24-48 hours (depending on conditions) and will reach its full strength after 28 days.

ProPave Grout can be cleaned by use of a domestic pressure washer (130bar max) with a patio head attachment or with the nozzle kept 30cm away from the face of the grout.

Do not use any harsh chemical based cleaners such as brick acid or cement residue removers as this may affect the overall appearance of the grout. For further information please contact the manufacturer.

## RECOMMENDED TOOLS

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### Suitable Dry Method Applications Driveways, sheds, summerhouses, or heavy trafficked areas.

These areas should only be grouted using the dry method as this allows the grout to cure at a greater rate, avoiding excess moisture within the mortar as well as internal structures.

### Dry compressive strength:

After 1 day: 0.80N/mm<sup>2</sup>

After 7 days: 5.80N/mm<sup>2</sup>

After 28 days: 6.70N/mm<sup>2</sup>

Check manufacturer recommendations for tiles and fixing products before installing on driveways or other areas subject to high pressure.





**Please note:** Installation requirements may vary depending on the tiles and fixing products used, as well as the external conditions. Check manufacturer recommendations for tiles and fixing products before installing to ensure the products are suitable for their intended use and the required installation standards are achieved. We strongly recommend the use of a professional tiling or landscaping contractor.

**CTD**  
ceramic tile distributors