



# HOW TO GUIDE SLATE FLOORING



ROOFING CLADDING  
PAVING FLOORING  
LANDSCAPING

# How to guide: Slate flooring

## Planning & Preparation



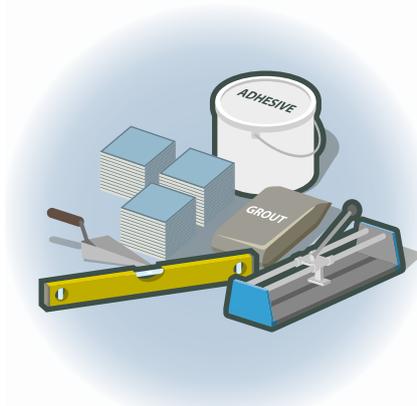
### STEP 1: The Plan

The best projects start with a plan – the better the plan – the better the end product.

When choosing the size of tile, and whether fixed sizes or mixed patterns are to be used, this should be considered in conjunction with the size and shape of area to be tiled.

Where possible, sufficient flooring to complete the project plus an allowance (we recommend an additional 10%) for cutting etc. should be purchased in one lot to minimise any shade and texture variations.

It is often beneficial to lay out the floor dry, trying differing arrangements. Natural grain marks may reflect light in very different ways depending on their orientation. Dry laying gives the opportunity to view the floor in context and make any necessary alterations. A photograph at this time may prove useful as a future reference.



### STEP 2: Materials, Tools and Equipment

#### Materials:

- Floor tiles
- Adhesive (suitable to the floor type)
- Grout
- Sealing or enhancing products (if required)
- Tile spacers
- Acrylic bonding solution (for porous sub floors)

#### Tools:

- Adhesive trowel
- Chalk line
- Tape measure
- 1 – 2 M spirit level
- Tile cutter or angle grinder
- Tile nibbler
- Bucket and tiling sponge
- Grout spreader
- Electric drill/mixer
- Adhesive mixing paddle
- Small bricklaying trowel
- Wet vacuum cleaner

#### Personal Protective Equipment (PPE):

- Gloves
- Eye protection
- Dust mask
- Knee Pads
- Safety footwear

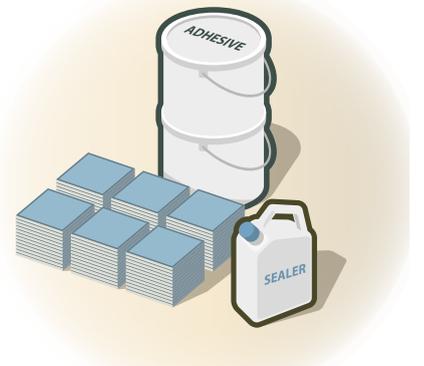


### STEP 3: Health & Safety

On any project, health and safety considerations are paramount at all times. Be aware of all manufacturer's instructions and safety advice at all times.

#### PLEASE ENSURE THAT ALL PPE IS WORN AS REQUIRED:

- When mixing adhesives and grouts wear a dust mask, eye protection and protective gloves.
- Cover skin when using adhesives and grouts that are cement based as these can cause skin irritations and burns.



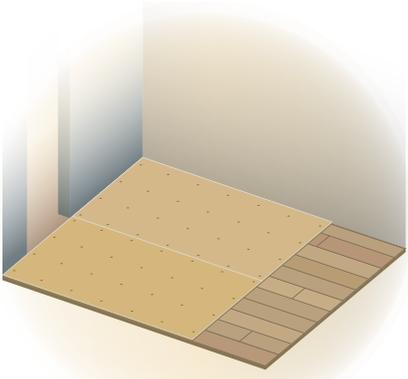
### STEP 4: Preparation

Prior to laying the flooring, an area should be set aside for storing. Unpack all the flooring and sort into separate piles by colour/texture variations and by thickness variation. Although flooring tiles will generally be calibrated, there will still be some variation in thickness. When laying the floor use the thickest first and blend the thinner tiles as work progresses.

Whilst sorting, if tiles are to be sealed it is recommended that they are thoroughly cleaned and when completely dry an application of sealing solution is applied to the face of the tile. This will make it easier to clean away adhesive and grout, from the surface.

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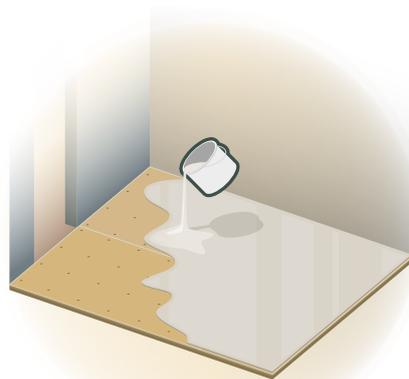
## The Laying Process



### STEP 5: Assessing the Floor (timber)

The floor must be of sound structure, level and smooth and be free of any dust, oils or grease. Any holes or hollows should be filled and levelled.

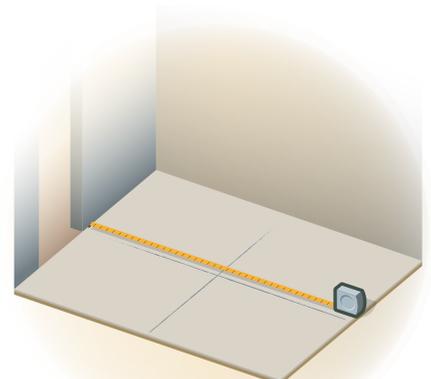
Timber floors such as T & G boards should be overlaid with WBP Marine Plywood fixed with stainless steel screws at between 200 to 300mm centres. If the floor has movement and flexibility, 2 layers of WBP Marine Plywood laid in opposite directions will limit this. An alternative overlay and, particularly useful in areas prone to moisture, would be a cement particle tile backing board. When tiling over timber floors, a suitable flexible tile adhesive and grout will have to be used.



### STEP 6: Assessing the Floor (concrete)

Concrete floors should be assessed for smoothness, if the surface is rough, either the flooring can be laid in a thick bed adhesive, or the floor can be levelled with either sand/cement screed or a self-levelling compound. Ensure all concrete/screed/self-levelling compounds are fully cured before fixing tiles.

Porous floors, such as wood and concrete, and bituminous asphalt floors should be primed with an acrylic bonding agent, normally applied with a sponge painting roller.



### STEP 7: Setting Out

It is generally best practice to identify either the centre of the room or a focal point as the start. The centre of the room can be found using a tape measure to identify the mid-point of all walls and chalk lines struck from opposite centre points. Where the chalk lines cross will be the centre. Chalk lines can be used for setting out the initial row of tiles.

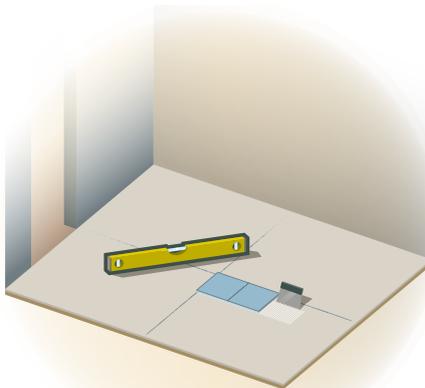
Also do remember to tile towards an exit point, in order not to be backed into a corner and have to walk upon the newly laid tiles at this stage.



### STEP 8: Mixing Adhesive

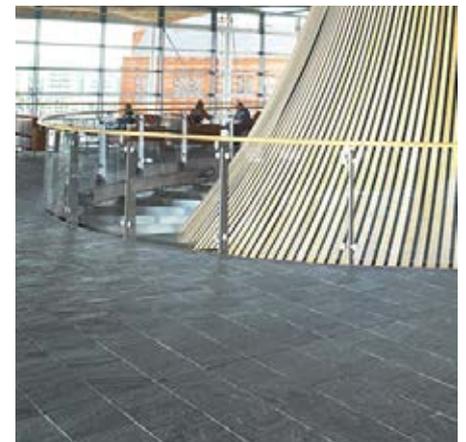
Adhesive manufacturer instructions should be followed. Generally adhesive should be mixed with water in a clean bucket with a mixer or mixing paddle fitted to an electric drill. Care should be taken to ensure that only enough adhesive prepared that can be applied before it starts to set. Adhesive which has begun to set should never be remixed with water.

**Ensure that the mixing bucket is clean before preparing each batch of adhesive.**



### STEP 9: Laying Tiles

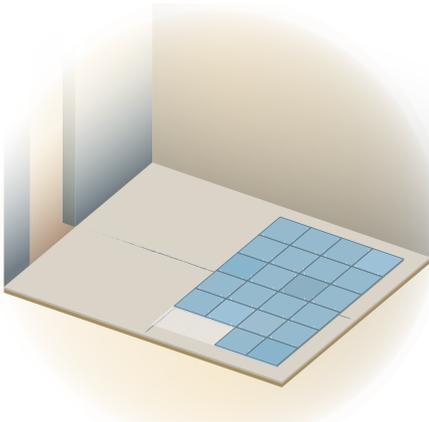
Using a notched adhesive trowel, apply enough adhesive to the floor to fix 2 tiles, starting at the marked centre or focal point of the room. It is beneficial to ensure a good finished bond and also to make minor height adjustments to "butter" a thin skim coat onto the back of the tile. This should also be notched.



Press the tile into adhesive. Using a level, check that the tile is true, making slight adjustments by pressing down firmly. Use a small bricklaying trowel to score any adhesive that presses from under the tile.

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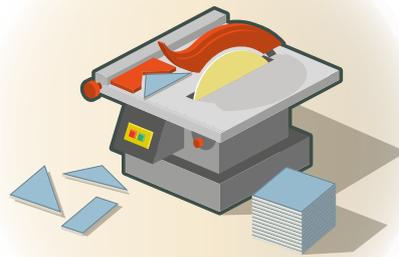
## The Laying Process



### STEP 10: Continue...

Continue laying tiles, following a chalk line to the wall, inserting tile spacers if required, to ensure consistent grout joints of between 4 to 7mm. Keep checking levels with the spirit level and grade the slate thickness from the centre. Finish with a full size tile before the wall.

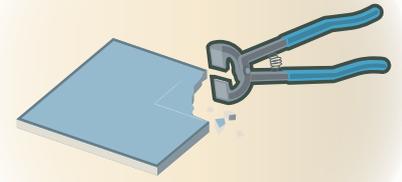
Work away from the centre of the room, fitting tiles to give true straight lines or keeping to the preferred pattern, fitting all full sized tiles.



### STEP 11: Cutting Tiles

For cutting straight lines, the ideal tool is a diamond blade wet tile cutter. These can either be bought quite reasonably from tile/tool/DIY outlets or hired. Carefully follow all safety instructions and wear suitable PPE (eye protection and gloves).

If an angle grinder fitted with a diamond blade is to be used, this will generate large amounts of dust, and suitable dust protection should be used. Using this method, ensure the tile is held securely and firmly score the marked cut with the grinder. Cutting with a grinder is generally more effective in a number of passes.



### STEP 12: Complex Cuts

Complex cuts can be marked from a template or profile gauge. Small cuts can be made with tile nibblers or a junior hacksaw.

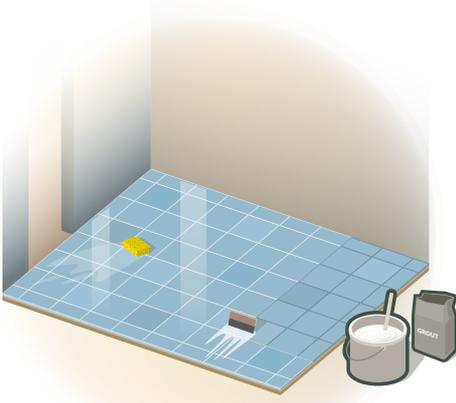
Cuts marked with a pencil will be washed off when using a wet tile cutter, so marks should either be made with a permanent marker, or scored into the face of the tile.

Small cut pieces are easier to fit by "buttering" adhesive onto the back of the tile, as opposed to trying to get a consistent level within a confined space.



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## The Laying Process



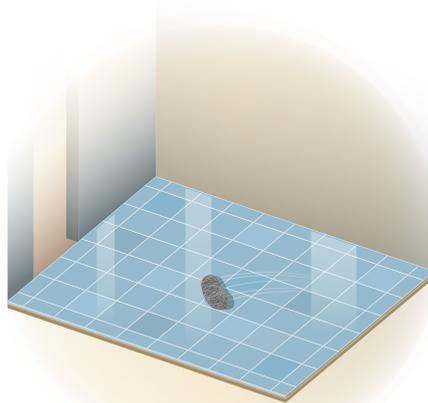
### STEP 13: Grouting

When all tiles are fully set and the adhesive has sufficiently cured, tiles can be grouted. Before applying grout, check all joint gaps are clean and any protruding adhesive is scraped away.

Mix grout in a clean bucket following manufacturer guidelines.

Use a rubber edged grout spreader to force grout to fully fill all gaps between tiles. Clean excess grout with a clean sponge immediately. Excess grout that dries into riven faced tiles is time consuming to clean at a later date.

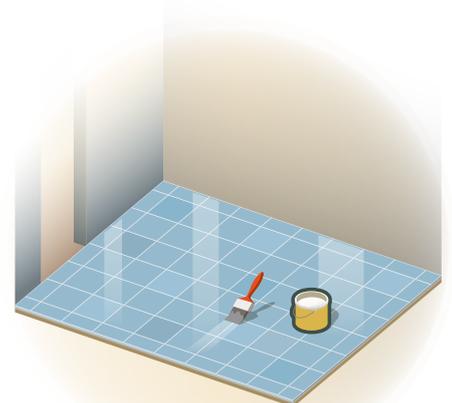
Once the grout has sufficiently set, thoroughly clean the entire tiled area with a sponge and clean water. At this stage it is important to remove as much of the cleaning water as possible, as the water will contain a grout solution and will dry to leave a residue on the tiles. If possible use a vacuum cleaner that is capable of removing liquids.



### STEP 14: Cleaning

All tiling should preferably be cleaned as work progresses, with excess adhesives, grout etc. being removed prior to curing.

Hardened adhesive or grout spills can be chipped away with a masonry chisel, with residual staining being cleaned with a water and detergent solution using a green scouring pad. Small more stubborn stains can be cleaned with grade 3 or 4 wire wool with a detergent solution. All cleaning operations should be followed by thorough rinsing and ideally the vacuum removal of all cleaning and rinsing solutions.



### STEP 15: Surface Sealing

Although not required to improve the performance characteristics of the tiling, a coat of natural stone/ slate sealer will assist in repelling dirt and staining. Sealing solutions are available in a number of finishes, giving different levels of sheen. Sealing of slate surfaces will generally slightly darken the surface and will also enhance the appearance of natural markings and textures.

The appearance of mechanically textured surfaces such as flamed finishes are significantly changed through the application of sealing products.



### STEP 16: Maintenance

Dry dust and dirt should be removed using either brushing or dry vacuum. Slate floors should be washed with a suitable detergent solution and rinsed thoroughly before vacuum drying.

Light scuffing and blemishes should be cleaned using a proprietary stone soap cleaner after normal cleaning and drying. The stone soap solution should be allowed to dry naturally.

Deep scratch damage to slate floors can be removed using a fine grade wet and dry sanding sheet.

Oil based stains can be removed with white spirit. White spirit or abrasive cleaning may remove any surface sealant, this can be touched up with a small amount of the sealant on a lint free cloth or sponge.





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