# LAYING CERAMIC WALL TILES 



## Before purchasing tools, tiles and adhesive, read every step thoroughly then talk to one of our experts

You can easily brighten up your bathroom or kitchen by using wall tiles. They make an attractive backsplash behind sinks and stoves, or encasing a bathtub or shower.

Wall tiling is relatively easy if accompanied by careful planning, but it does take patience, common sense and being somewhat handy. However, be aware that shower tiling requires waterproofing of the substrate and the consequences of a poor job can be expensive leaks. Sometimes it is better to leave shower tiling to experienced, professional tilers.
Use graph paper to estimate the number of tiles you need beforehand and to work out your design requirements if you are introducing a pattern or border. It's also a good way of planning how you a going to deal with awkward corners or recesses.

When purchasing your tiles you should order at least 10\% extra to allow for broken or chipped pieces and also check to that your tiles are all from the same batch.

## Step 1: Preparation

Ceramic tiles can generally be installed over nearly any clean, level, firm rigid surface e.g. plaster, cement render, fibre cement sheet and plasterboard. Using the correct adhesive you can even tile over old tiles.

However, for shower and tub enclosures, it is important to install water resistant fibre cement wallboard to support the tile. This should be installed strictly in accordance with the manufacturer's instructions.

If you plan to tile over plaster or cement render, all imperfections and holes must be made good
Remove loose or flaking paint from painted surfaces. Thoroughly remove water based paint. If tiling over a sound gloss-painted surface, roughen up the surface with coarse abrasive paper to provide a key for the adhesive

Bare plasterboard, MDF or particleboard should be sealed with an oil based sealer.

Do not attempt to tile a wallpapered surface or one with any other surface which may separate from the base wall.

Before actually starting the job be sure to properly protect your bathtub, basin and toilet suite from damage while working.

## Step 2: Tile Layout

The golden rule of tiling is to make sure your pattern is square and to try as much as possible to avoid small pieces of tile or, if unavoidable, try to make them less obvious.

Be prepared to give considerable time experimenting with dry tiles before starting the job; the final result will depend largely on this initial process.
The steps below are primarily intended to be followed when dealing with a full wall of tiles in a bathroom but the basic principles apply if you are only putting up a few tiles as a splashback behind a stove or above a bench in the kitchen.
1: If you're new to laying tiles, it may help to mark the wall with guidelines that represent where the tiles will be located. Make a tiling gauge from a suitable length of straight $45 \times 19$ pine batten and mark the spacing of the tiles on it and the separate spacer gaps if used. This will be used to calculate the position of full tiles.
2. Establish a base level by using your spirit level to determine the lowest point of the floor against a wall (fig 1). Measure up one tile from this point and make a temporary mark on the wall, this will eventually be where the bottom of the second row of tiles will sit. With this mark as a reference point use your tiling gauge to plan the horizontal tile rows. Ideally you should aim for the top and bottom rows of tiles to be the same size, so you may need to adjust the reference point accordingly, keeping in mind that it must end up being one tile height or less above the base level.

You should also check the path of each horizontal tile joint and adjust if necessary to avoid unsightly small cuts in any places, e.g. above the bath or vanity.
Once you have determined where the bottom of the second row of tiles will sit nail a straight batten up to and beneath that line, to support the second row of tiles. Continue this right around the wall. When the adhesive is set, this batten can be removed and the bottom row can be fixed. You will find that almost every tile in this row will need to be cut to allow for the gradient of a bathroom floor.
3. The same basic idea applies to the vertical lines of your job. Try to minimised any small cuts. Mark a vertical line down the centre of the wall, using a plumb bob and line. Use the tiling gauge to set out the vertical rows on each side of this line. From this you can ensure there are not going to be any small cuts on either end, up the edge of a window or at the end of a bath (fig 2).
If necessary, adjust the centre line so that the last tile at each edge of the wall is the same as its opposite side.
Fix another guide batten against the final full vertical tile line.
Since very few lines or fittings in a house are truly horizontal or vertical, be prepared to cut 'filler' tiles to fit in corners between walls.




## Step 3: Fixing the tiles

With your guidelines in place you can now begin fixing the tiles. The prime objective is to keep your lines straight and to ensure you are getting total adhesive coverage.

Generally, using a pre-mixed adhesive recommended for the tile and application, is easier for a beginner to use
Always start tiling at the bottom, at the vertical line or from a full tile edge and preferably apply full tiles before cut tiles.
 Using the size of notched spreader recommended on the adhesive scoop out some adhesive and spread it evenly over a small manageable area at a time until you get the hang of things.

Use the notches in the trowel to comb out the adhesive to form ridges. Generally it is recommended to hold the trowel at a 45 degree angle, so the top ridges of the adhesive are at the uniform recommended height.

Press the tile firmly in place with a slight twisting action, making sure it is flat and level. Periodically pop a tile to see if the adhesive covers the entire back of the tile.
To keep grout joints uniform some tiles have spacer lugs "built-in" to ensure the correct space is left between each tile, but generally you would use small plastic spacers between the tiles.

Check your levels every few rows with a spirit level and use a damp sponge to wipe any excess adhesive from the surface of the tiles. Repeat this process until the entire area is tiled. Leave out tiles where you plan to install ceramic accessories (soap dish, towel bar, etc.)

Any guide battens can be removed after 4 to 5 hours and the cut filler tiles fitted.

## Step 4: Cutting tiles

Cutting tiles in a straight line is not difficult, and gets easier the better your cutter is.
The most simple is using a steel rule as a guide and scoring along the marked line with a tungsten tipped cutter that penetrates the glazed surface of the tile. Then place tiles, glazed side up, over matchsticks placed directly under the scored line and apply even pressure with the hands either side to snap the tile along the scored line.
Alternatively, use a hand held tile snapping tool with the jaws directly aligned with the score mark. Or use a platform cutting table which first scores the surface of the glazed tile and then by using the cutter handle and your arm pressure to snap the tile into two pieces exactly at the scored line.

If only a very small amount is to be cut off the tile and even pressure cannot be successfully applied to snap it, scribe as normal, but then with a pair of tile nibblers, nip the rest of the tile away.


The most productive and professional way to go is with a wet saw equipped with a diamond blade. A wet saw includes a brace and guide to stabilize the tile as you cut and is the best way to achieve a fine, smooth cut.

It is possible to cut a hole in the centre of a tile using various methods with various degrees of success but the best method for the handyman is by drilling a hole with a masonry bit and using a rod saw blade as a fret saw. A rod saw has a blade like a thin round file, which is held in a frame similar to a hacksaw.

For curved cuts or notches, use a profile template gauge or cardboard templates to copy the shape and transfer it to the surface of the tile and then use a tile nibbler or rod saw to cut the shape.

When cutting a tile, allow for the width of grout lines and ensure you place them to keep the cut edges hidden as much as possible.

Remove any adhesive from the face of the tiles and allow tiles to set at least 24 hours before grouting.

## Step 5: Grouting

Mix the grout into a thick creamy consistency and apply to the wall with a rubber spreader. Work the spreader in a diagonal motion, spreading in all directions to ensure the gaps are well filled. Applying the grout at an angle prevents the lip of the grouter from dipping into the joint and removing any grout you're trying to apply.

Leave as little grout on the surface of the tiles as possible. Frequently wipe excess grout off with clean damp sponge at a 45 degree angle to the grout joints. Never wipe parallel to the joints.
To give an even, polished finish to the grout, use a piece of dowel to run down the grout lines, to ensure an even depth and thickness to the grouting lines.

After the grout dries enough to form a haze on the tile, polish the surface with a damp, not wet, sponge followed by a dry cloth.

Do not grout floor/wall, wall/wall, tile/tub or similar joints that are subject to movement. Grout can crack in these situations so fill these joints with an appropriate silicone.

## Tiling Hints

- Make sure you have enough tiles to finish the job before starting to tile. More tiles may not always be available.
- Plan your layout. Avoid small or narrow cuts where ever possible. Plan how one area may flow on from another. Make sure you are tiling onto a rigid surface that is flat, dry and dust free.
- Always waterproof showers and wet areas before you tile them.
- Silicone corner joints and where tiles meet skirting and other materials to allow for any movement.


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