

british ceramic tile

HOW TO TILE.

A STEP-BY-STEP GUIDE & AFTERCARE

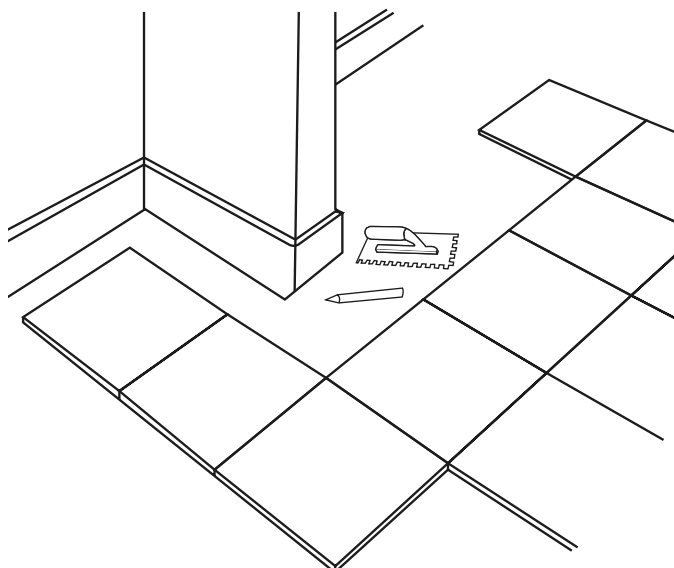


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Tiling often seems like quite a daunting task, yet with the introduction of modern cutting tools and easy to choose adhesives and grouts, the job is a much easier one.

This easy step-by-step guide will give the inexperienced the courage to tackle the job and give those with more confidence some tips to avoid common mistakes.

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HOW TO TILE



HOW TO CHOOSE THE RIGHT TILE

When it comes to choosing the right tiles, there are a few questions to ask, the main one being: **what best suits you and your family's needs?**

- ◆ What room are you doing?
- ◆ Do you want wall or floor tiles or both?
- ◆ If both, do you want the tiles to match or complement?
- ◆ Do you need the floor tiles to be hardwearing or are you more likely to be walking on them in slippers or barefoot?
- ◆ Do you have children or pets to consider?

It is essential that you select the correct tile for your situation. Below is an overview of the different types

CERAMIC TILES MATT OR GLOSS FINISH

Ceramic tiles are probably the most popular tile for DIY'ers because they are easier to cut. They can be used on both wall and floor in an interior setting, but because they are slightly less dense than porcelain they aren't suitable for outside areas. Ceramic tiles come in a matt, satin or gloss finish and can be formed into structured tiles. Ceramic tiles should conform to ISO 10545.



PORCELAIN TILES

Extremely attractive and very hardwearing porcelain tiles have extremely low water absorbency.

Available as wall or floor tiles, they can be used in areas with high footfall internally and externally, providing they have sufficient slip resistance.



NATURAL STONE TILES

Whilst some natural stone tiles are extremely hard wearing, the performance of these materials does vary and you should seek guidance from your retailer on their suitability for your project and specific adhesives and grouts that should be used. For example, some natural stone products may require sealing after installation.



GLASS

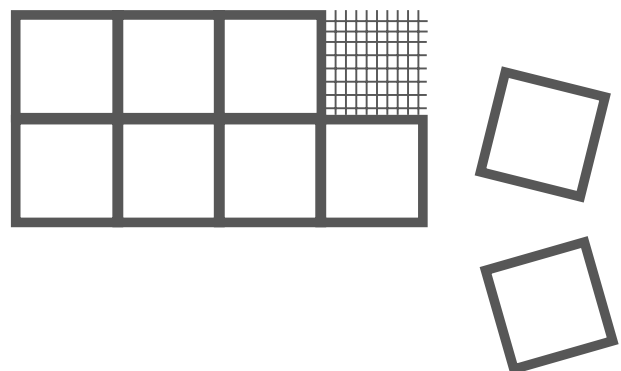
Glass tiles are available in many popular tile formats: metro tiles, borders, splashbacks, upstands and mosaics. They provide a surface that is very easy to clean and are available in a variety of colours including metallic and sparkle flecked finishes.

Glass tiles are only suitable for walls and whilst installation follows the same basic principles of standard tiling, extra care should be taken when cutting due to the sharp edges that remain.



MOSAIC TILES

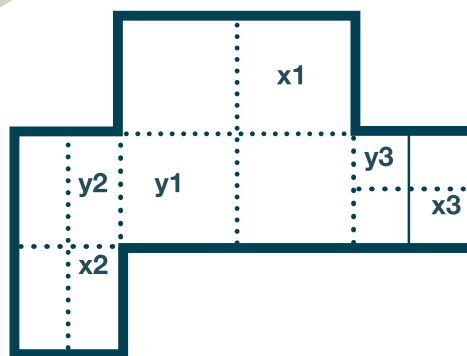
Mosaic tiles are small pieces of ceramic, natural stone or glass usually sold in sheets on a mesh backing or paper facing for ease of fixing. They can be cut, as required, to fit to shapes or to create borders and features within your design



HOW MANY TILES DO YOU NEED?

When buying tiles, it is key that you get your dimensions correct from the outset so you don't have to buy more in the future.

Often tiles are given batch numbers, if you did need to buy extra tiles later you should always try to purchase tiles from the same batch as very slight variations in product finish could occur.



**WHEN CALCULATING IRREGULAR
AREAS, DIVIDE THE AREA INTO SMALLER
REGULAR RECTANGLES.**

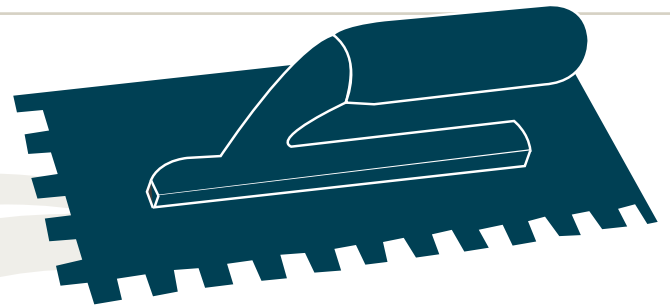
$$\begin{aligned} & X1 \text{ multiplied by } Y1) \\ & + (X2 \text{ multiplied by } Y2) \\ & + (X3 \text{ multiplied by } Y3) \\ & = \text{Area in square metres/feet} \end{aligned}$$

USE OUR QUICK TILE CALCULATOR

TILE SIZE (CM)	TILE SIZE (INCHES)	TILES NEEDED FOR COVERAGE									
		1M² / 10.76ft²	2M² / 21.53ft²	3M² / 32.29ft²	4M² / 43.06ft²	5M² / 53.82ft²	6M² / 64.58ft²	7M² / 75.35ft²	8M² / 86.11ft²	9M² / 96.88ft²	10M² / 107.64ft²
10X10	4x4	100	200	300	400	500	600	700	800	900	1000
10X20	4x8	50	100	150	200	250	300	350	400	450	500
10X40	4x15	25	50	75	100	125	150	175	200	225	250
15X7.5	6x3	89	178	267	356	445	534	623	712	800	889
15X15	6x6	45	89	134	178	223	267	312	356	400	445
15X50	6x20	14	29	40	54	67	80	94	107	120	134
30X7.5	12x3	45	89	134	178	223	267	312	356	400	445
25X33	10x13	13	25	37	49	61	73	85	97	110	122
25X40	10x16	10	20	30	40	50	60	70	80	90	100
25X50	10x20	8	16	24	32	40	48	56	64	72	80
30X30	12x12	12	23	34	45	56	67	78	89	100	112
33X33	13x13	10	19	28	37	46	56	65	74	83	92
30X50	12x20	7	14	20	27	34	40	47	54	60	67
30X60	12x24	6	12	17	23	28	34	39	45	50	56
50X50	20x20	4	8	12	16	20	24	28	32	36	40
60X60	24x24	3	6	9	12	14	17	20	23	25	28



ADHESIVES & GROUTS



There are many different types of adhesives and grouts available on the market. As all conditions vary, it is most important that you seek advice to ensure you use the correct type.

ADHESIVES

Adhesives are used to fix tiles to their base. Depending on the manufacturer, they have varied properties such as flexibility, grab and setting times, so always refer to the manufacturer's guidelines for suitability to ensure you select the right product for your job.

STANDARD SET TILE ADHESIVE

A cementitious wall and floor adhesive with extended workability. This is ideal for both interior and exterior applications where speed of set is not essential.

EPOXY BASED ADHESIVE

Epoxy based adhesive or reaction resin adhesives consist of a mixture of synthetic resin, mineral fillers and organic additives in which hardening occurs by chemical reaction. Normally supplied as two components, which are mixed together to produce the adhesive. The adhesive sets by chemical reaction initiated when mixing, often one of the components contains a chemical resin, the other a hardener (curing agent).

RAPID SET TILE ADHESIVE

A rapid-setting cementitious wall and floor tile adhesive. Its unique properties make it ideal for use with ceramic, mosaic and natural stone tiles.

HIGH GRAB ACRYLIC WALL TILE ADHESIVE

This is ideal for standard and large format ceramic wall tiles and is suitable for use with porcelain, mosaics, glass and natural stones. When using larger format non-porous tiles like porcelain and glass, drying times will be substantially increased. In these instances we would recommend the use of a cementitious adhesive.

HIGHLY FLEXIBLE ACRYLIC WALL TILE ADHESIVE

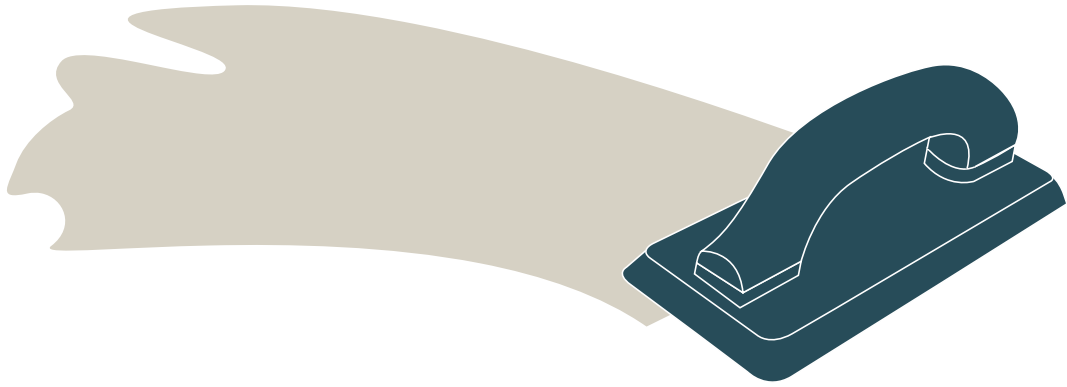
A ready mixed thin bed wall tile adhesive suitable for interior use. It is a specially formulated highly flexible water resistant paste suitable for use in areas where constant wetting occurs.

RAPID SET FLEXIBLE TILE ADHESIVE

Premium grade cementitious tile adhesive ideal for natural stone, porcelain and ceramic tiles where exceptional bond and rapid set are essential. It has a high strength and is suitable for both floor and wall and under floor heating.

READY MIXED ACRYLIC WALL TILE ADHESIVE

Is a ready mixed thin bed wall tile adhesive for interior use. It is ideal for fixing ceramic tiles and mosaics to most common substrates.



GROUTS

Grouts used to fill the spaces between tiles or mosaics. They are available in a wide range of colours and should be chosen according to the job you are working on. You can choose a grout that complements or contrasts with your tiling. A contrasting grout works particularly well where you want to emphasise the tile pattern as such herringbone pattern.



FLEXIBLE GROUT

Designed for areas when movement or vibration is likely. It has excellent joint filling capacity and is suitable for natural stone, porcelain and ceramic tiles.

WIDE JOINT GROUT

Specifically designed for tiles with joint widths of up to 20mm (1 inch), it offers exceptional coverage for water sensitive foundations and highly trafficked areas. It is suitable for natural stone, porcelain and ceramic tiles.

READY MIXED GROUT

This is a ready-to-use grout supplied in m²/ft² quantity. Check the application area for amounts needed.

WATERPROOF/ANTI MOULD GROUT

This is a ready-to-use grout supplied in m²/ft² quantity. Check the application area for amounts needed.

FINE JOINT GROUT

Developed for wall and floor tiles with joint widths up to 12mm (1/2 inch). It is ideal externally and internally in both wet and dry conditions and suitable for natural stone, porcelain and ceramic tiles.



TOOLS FOR THE JOB...

- ◆ Spirit level
- ◆ Measuring tape
- ◆ Set square

(for setting out and laying tiles)

- ◆ Tile cutter
- (manual or electric)

- ◆ Tile nippers

- ◆ Bucket trowel
- (for scooping adhesive)

- ◆ Notched trowel

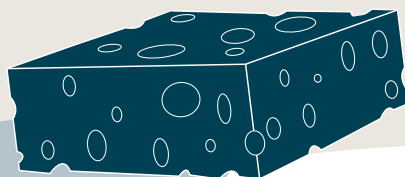
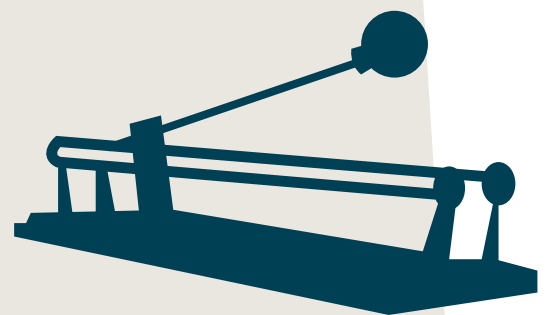
- ◆ Grouting float and profiler

- ◆ Sponge
- ◆ Spacers
- ◆ Mixing bucket

- ◆ Hammer

- ◆ Tile file

- ◆ Caulking gun
- (for sealant and bonding)



BE PREPARED!

You will need a perfectly flat surface for tiling.

Do not cut corners - preparing the surface is vitally important.

1

CLEAN:

Use a damp cloth to remove surface contaminants. You can use a suitable degreasing agent, however you should always wash down after with clean water.

2

DRY:

Ensure the background and surface is fully dry.

3

SOUND/ SOLID:

Cut away any loose areas on the surface to ensure a stable base when affixing tiles.

4

FLAT:

Ensure the surface is flat with no more than 3mm (0.1 inch) in variation over a 2m/10ft area. On floors, the use of a levelling compound may be recommended.

5

PRIME:

Depending on the adhesive, priming the surface might be required, always check before starting.

6

WATERPROOF:

In wet areas the use of a waterproofing product is recommended, follow the manufacturer's recommendation for application.

HOW TO LAY WALL TILES

A. PREPARATION

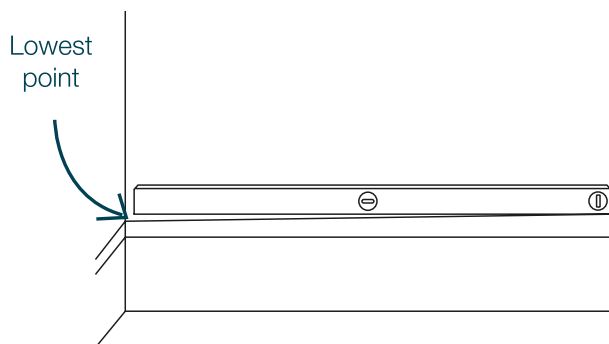
Planning ahead is essential for a good result.

Before you start tiling, you should make a tile staff. Use a long length of timber, mark the tile width, position a spacer at the edge of the tile and place a second tile against. Repeat this process until you reach the end.

Use the tile staff to set the position of the tiles so that equal size cuts are made either side of windows and doors. Avoid difficult cuts that can spoil the appearance. Plan each wall carefully, remembering that any patterns/designs will need to be matched in the corners of the room. For plain tiles each wall should be centralised avoiding any small cuts.

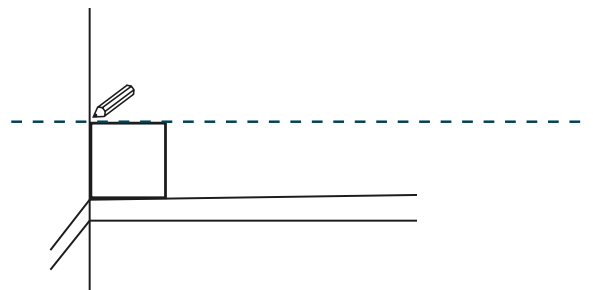
1

Find the lowest point you are working to (skirting, bath top, work surface etc.) with a spirit level.



2

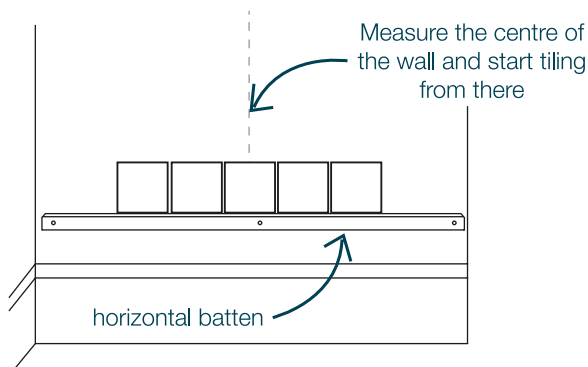
Place a tile against the lowest point and draw a line on the wall along the top of the tile.



N.B. The start point of the line will depend on the setting out of the tiles,

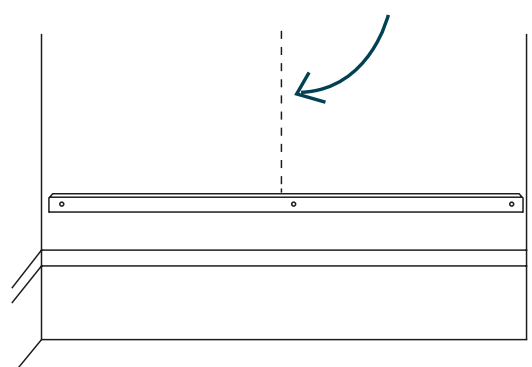
3

Lightly nail the batten along the wall to this line. Use the spirit level to ensure it is level. The first line of tiles will rest on this batten.



4

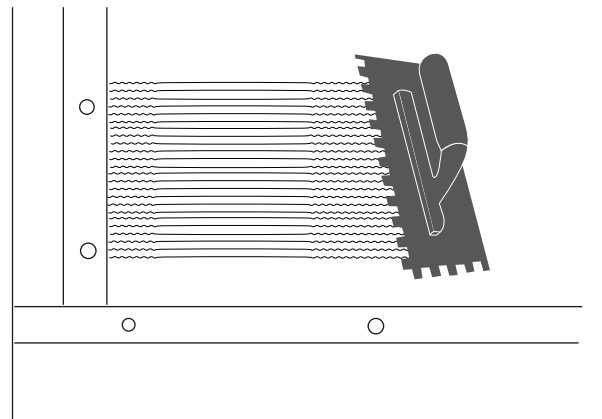
Draw a vertical (plumb) line at the centre of the wall. Use this to check that the tiles are in line vertically.



B. LAYING

1

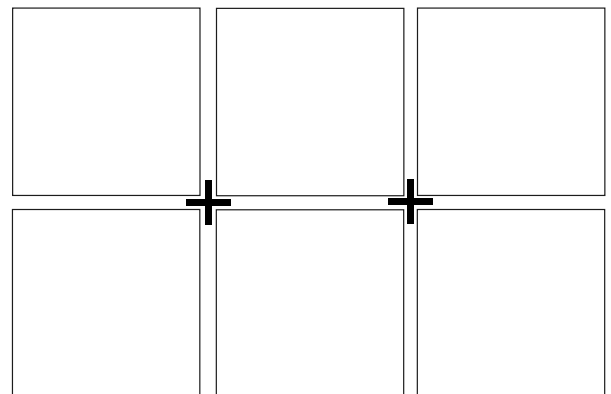
Spread the wall tile adhesive using a notched trowel onto the wall. Work in small 1m²/ 3ft² areas so that tiles are fixed before the surface of the adhesive forms a skin. Press and twist the wall tiles into the adhesive starting at the bottom and working upwards. Complete one whole row of tiles at a time, using spacers (if required) to ensure a uniform joint. Check the horizontal and vertical lines with the spirit level every few rows.



NB: In awkward locations it is often easier to apply the adhesive onto the back of the tile instead of the wall.

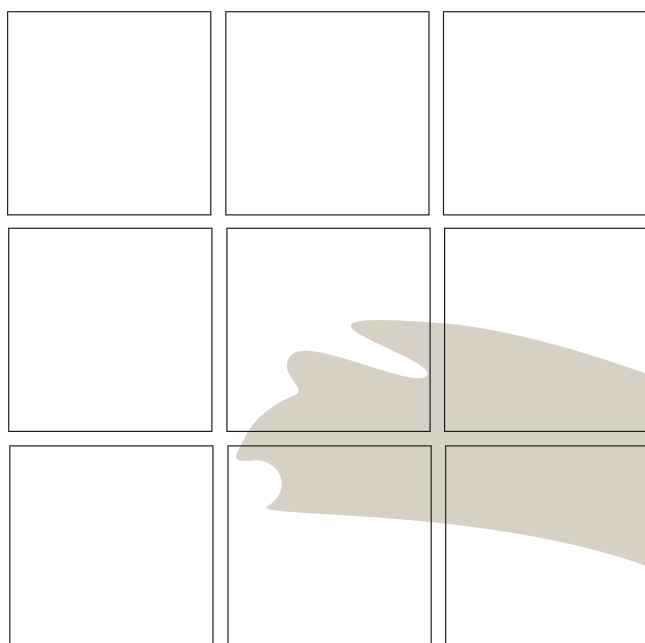
2

Remove surplus adhesive from joints to allow room for grouting and complete the tiling. Tile spacers can be used to achieve a uniform size joint, however they should be removed before grouting.



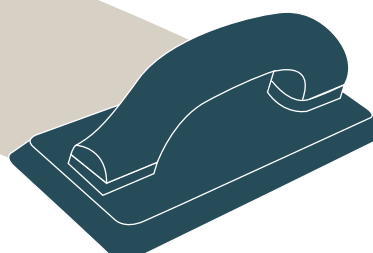
3

If the tile does not have a glazed edge, a neat finish on external edges and corners can be achieved with the use of tile fixing trim incorporated at the time of tiling. To prevent the spillage of water around baths, basins and plumbing equipment such as shower taps a plastic sealing strip or silicone sealant should be used.



C. GROUTING

Make sure you leave enough time for you tiles to fully set, this varies depending on the adhesive, so check the setting times on the adhesive bag before getting started. After mixing, force the grout into the joints using a grout float. Do not use a rigid spreader as this can cause scratching. Remove surplus grout from the surface with a sponge. Polish with a dry cloth.

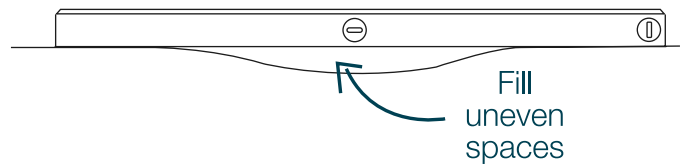


HOW TO LAY FLOOR TILES

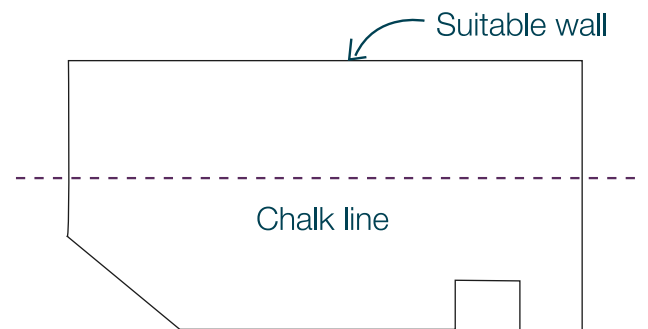
A. PREPARATION

Planning ahead is essential for a successful project. Laying floor tiles will raise the level of the finished floor, so if possible remove all fixtures before tiling. Also, remember to plan your route so that you are able to exit the room without stepping on any tiles as they won't be set!

- 1 Check the overall flatness of the floor. A levelling compound can be used to improve flatness levels.



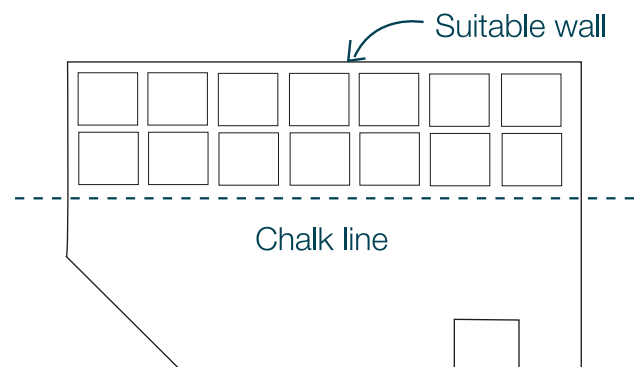
- 2 Mark a chalk line on the floor down the centre of the room parallel to the most suitable wall (normally this is achieved by viewing the room from the doorway).



B. LAYING

Lay the tiles along the chalk line and work towards the wall, leaving a joint between the tiles of at least 3mm (0.1 inch).

NB: Tile spacers can be used to achieve a uniform size joint, however they should be removed before grouting. Avoid small cuts, as they can be difficult and do not look professional.

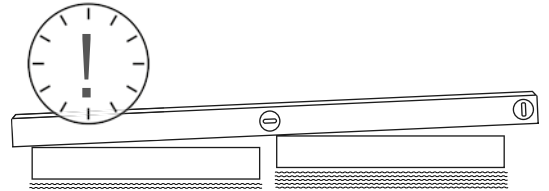
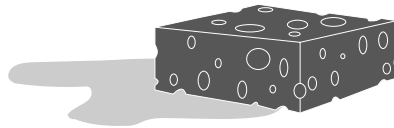
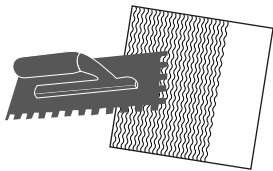


TOP TIP FOR GROUTING:

When grouting tiles on a timber floor, use a water-based polymer admixture to improve flexibility. In bathrooms, special attention should be paid to sealing the gap between wall and floor base using a flexible antibacterial sealant. With proper care and attention, a correctly installed, good quality floor tile should give many years of trouble-free service. Grit is the biggest enemy of any floor material and a mat adjacent to external doors is strongly recommended.

C. ADHESIVE

Mix the adhesive as per manufacturers' instructions in a mixing bucket. Depending upon the location of the tiles a flexible water-resistant cement based adhesive might be used.



1

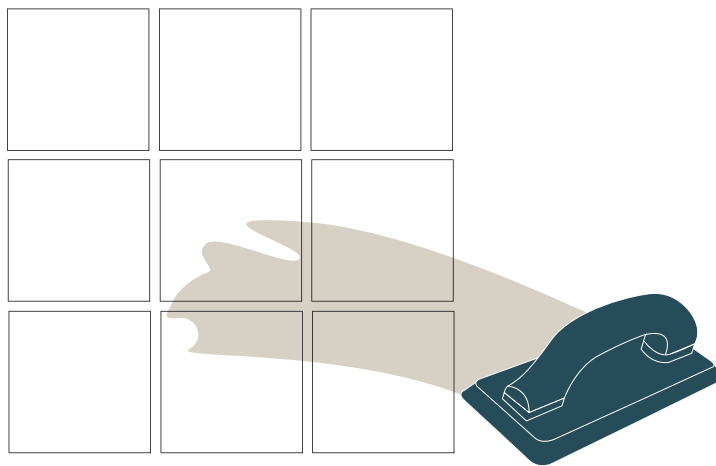
Working from your set out lines spread the adhesive evenly on a small area of floor. Hold your notched trowel at a 45° angle and drag across the floor spreading evenly and ensuring that the notches are in the same direction.

2

Remove surplus adhesive from the tile surface and joints with a damp sponge or cloth. Work in small areas of about 1m²/ 3ft² so that tiles are fixed whilst the surface of the ribbed bed is still wet and workable.

3

Every so often use a spirit level or straight edge to check that the tiles fixed are flat. Remove and adjust the amount of adhesive to achieve a flat surface, but don't leave it too late or the adhesive will set.



D. GROUTING

Do not begin grouting or walk on the floor tiles for at least 24 hours (unless using a rapid set adhesive) to avoid disturbing the tiles before they have bonded completely with the adhesive.

Force the grout into the joints using a squeegee. Remove surplus grout from the surface with a sponge.

MOVEMENT JOINTS

- Movement joints allow for shifts in pressure from footfall and help to prevent tile damage.
- The recommended minimum width is 6mm (1/4 inch), but it depends on each individual application.
- Movement joints are either fieldapplied sealant, or a prefabricated profile with anchoring legs which are adhered beneath the tile.

TILING ON CONCRETE

- New concrete must be at least six weeks old and thoroughly dry before fixing floor tiles.
- The surface must be smooth, flat and free from dirt and grease.
- Uneven surfaces can be improved with levelling compound.

HOW TO FIX GLASS TILES

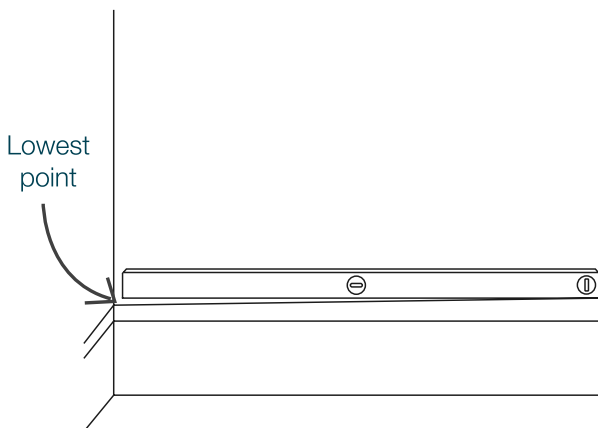
A. PREPARATION

Before you start tiling, you should make a tile staff. Use a long length of timber, mark the tile width, position a spacer at the edge of the tile and place a second tile against that. Repeat this process until you reach the end.

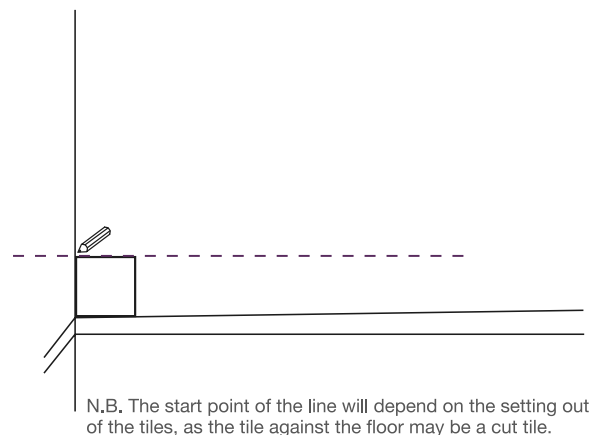
Use the tile staff to set the position of the tiles so that the same size cuts are made either side of windows etc.

Avoid small difficult cuts that can spoil the appearance. Plan each wall carefully, remembering that any patterns/designs will need to be matched in the corners of the room. For plain tiles each wall should be centralised avoiding any small cuts.

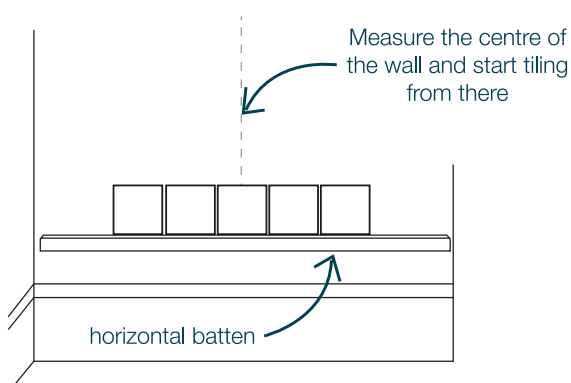
- 1** Find the lowest point you are working to (skirting, bath top, work surface etc.) with a spirit level.



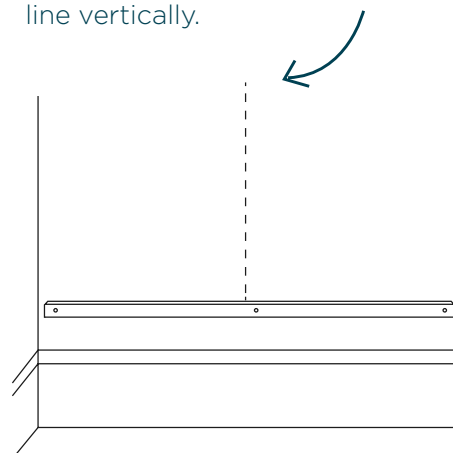
- 2** Place a tile against the lowest point and draw a line on the wall along the top of the tile.



- 3** Lightly Nail the batten along the wall to this line. Use the spirit level to ensure it is level. The first line of tiles will rest on this batten.



- 4** Draw a vertical line at the centre of the wall. Use this to check that the tiles are in line vertically.



HOW TO TILE

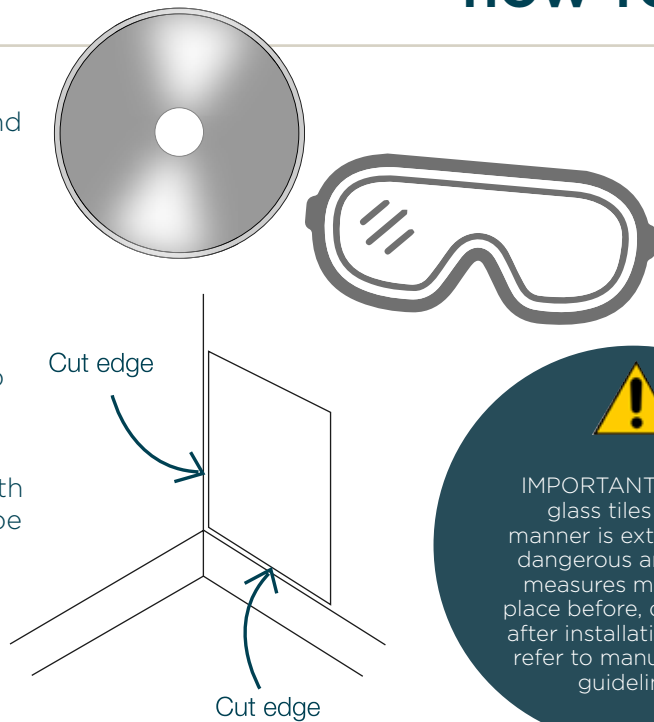
5

Glass tiles can be cut using a diamond wheel wet tile cutter, created specifically for glass, or wheel glass cutter and glass pliers.

Ensure that you wear protective glasses or goggles and always take care.

The cut edge will be extremely sharp and should be positioned in the corners of an installation.

You can lightly sand the cut edge with coarse wet and dry sand paper but be careful not to scratch the surface.



B. LAYING

1

Use a flat spreader to apply the adhesive to the wall to produce a uniform ridge free bed. This will avoid colour variation in the tiled installation.

2

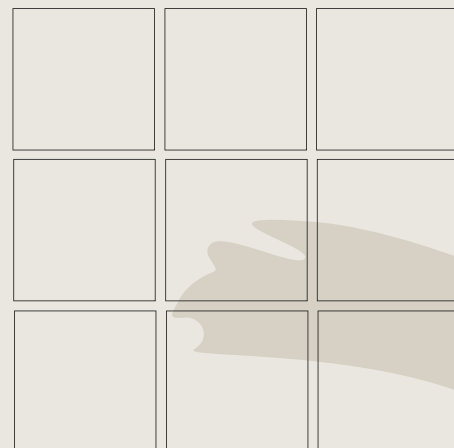
Follow the manufacturer's instructions regarding storage, mixing and applying.

3

Start at the bottom centre and work outwards to make sure that any cut tiles are at the edges.

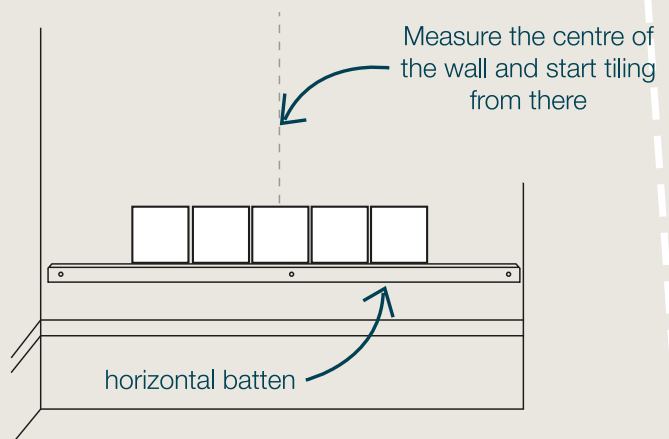
4

Press the tiles firmly onto the adhesive, making sure all surfaces are flush before leaving to dry for at least 48 hours prior to grouting.



C. GROUTING

Apply the grout with a grout float following the manufacturer's instructions taking care to avoid sharp edges and scratching the surface of the tile.



HOW TO FIX MOSAICS

Mosaics are fixed in exactly the same way as ceramic wall tiles however, with a mosaic you have far more versatility in terms of their use. Most mosaics are supplied on a mesh background, which means they can be cut to size to create thinner borders and focal areas within a tiling design. Check out the following ideas on how to use your mosaics.

MAKE A
SPLASH!

TOP TIP:

Double check with the manufacturers instructions that any natural stone within your mosaic has been pre-treated. If not this will have to be done after fixing.



HOW TO TILE



SPECIAL CONSIDERATIONS

UNDERFLOOR HEATING

- Electrical under tile heating is readily available. It should be installed following the heating suppliers instructions and connected by a competent electrician.
- The heating system should be commissioned following the manufacturer's instructions before and after tiling.
- If under floor heating is installed, this must not be turned on for 21 days after completion of your tiling project. If it is a pre-existing heat pack it must be tuned off for 3 days prior to tiling, and again left off for 21 days, this allows the adhesives to naturally cure.
- Movement joints will be required around the perimeter of the floor, and where tiling lies alongside columns, curbs and steps.
- In large floor areas, tiles should be divided by movement joints into bays. These should be less than 40m²/130ft².

LARGE FORMAT TILES

- With large format tiles (over 300mm² or 12 inches²) it is important to make sure the background is flat, plumb and true before tiling begins. It is also worth bearing in mind that the tolerances for the tile is based the tile proportions.
- When fixing large format tiles it is essential to use the correct cement based adhesive and ensure 100% coverage of tile adhesive on the back of each tile.
- Large format tiles may not be suitable for fixing in a brick bond pattern.










SHOWERS AND WET ROOMS

In wet situations, particularly in bathrooms around the shower, it is essential to tile onto an already water resistant background such as tile backer board. Porous backgrounds such as plaster or plasterboard can be made waterproof by using a tanking (waterproofing) system.

TILE MAINTENANCE AND CLEANING

After all the effort involved with your tiling project, you'll want to make sure they are well maintained and well cared for.

5 TIPS FOR MAINTAINING AND CLEANING YOUR NEW TILES:








-  Once the tiles have settled, use a sealer on the grout joints. Test the sealer on a spare tile first to make sure it doesn't damage or discolour the tiles.
-  If grout cracks or is damaged, remove the grout in the area with a grout rake, and replace with fresh grout.
-  Regularly sweep the floor and clean it using a damp mop.
-  For a deeper clean, use a non-abrasive detergent and warm water.
-  Don't use any acid or bleach based cleaners.

With proper care and attention, a correctly installed, good quality ceramic tile should give many years of trouble-free service.

The best way to prevent build up of soap, scum and body oil deposits is to use a plastic scouring pad with the appropriate cleaner. Acidic or bleach cleaners should not be used with ceramics, porcelain or natural stone.

Wet rooms without enough ventilation to remove excess moisture may have fungal growth on the tiles or grout. This can be controlled by wiping with a dilute solution of bleach and leaving it for five minutes before cleaning off. If the fungal growth is not completely removed first time, bleach may be re-applied and scrubbed to loosen. The surface should always be rinsed thoroughly with clean water. Bleach should always be used with caution and never mixed with other chemicals. When using bleach, ensure the room is well ventilated.

REPLACING DAMAGED TILES

-  Using a grout rake, scrape the old grout from around the damaged tile. Make sure to do this gently to avoid damage to any of the other tiles.
-  Drill 5 holes in the tile, one near each corner and one in the centre (you may need more if it's a large tile). Only drill through the tile and not too far behind it.
-  Use a chisel and hammer to join the holes into an x shape from the centre hole. This will loosen sections of the damaged tile, don't be too rough or you might damage nearby tiles.
-  Once the damaged tile has been removed, scrape away the old adhesive until it's fully clear.
-  Apply adhesive onto the back of the new replacement tile, this is easier than trying to apply directly to the surface.
-  Place the tile on the surface and twist into place to ensure it sticks, use tile spacers on each side of the tile.
-  Leave to set before you re-apply grout to the joints.

british ceramic tile

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