



TILE GUIDE

RAK
CERAMICS

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What are tiles?

A tile is a manufactured piece of hard-wearing material such as ceramic, stone, metal, or even glass, generally used for covering roofs, floors, walls, showers, or other objects such as tabletops. Derived from a French word tuile -meaning a roof tile composed of fired clay, tiles are used to form wall and floor coverings, and can range from simple square tiles to complex mosaics. Tiles are most often made of ceramic, typically glazed for internal uses and unglazed for roofing, but other materials such as glass, cork, concrete and stone are also used.

Ceramic Vs. Porcelain

Although they belong to the same family, porcelain and ceramic tiles are more like cousins than twins. Some people will use the terms 'porcelain' and 'ceramic' tiles interchangeably, but there are a few differences. This means one might be a little more advantageous for your project. Just something to keep in mind. Depending on how you plan to use your space, porcelain or ceramic tiles may suit you better. Here's how they differ and where they're best used.

A Quick Comparison

The main differences between a porcelain and ceramic tile are the strength and the durability much more higher in porcelain. Performances of porcelain are definitely far better than ceramics. The indicator used to classify the material is the rate of water absorption. Porcelain tiles absorb less than 0.5% of water whilst ceramic and other non-porcelain tiles will absorb more. This is down to the stuff used to make porcelain tiles. The clay is denser and so less porous. It effects how the tiles behave, and what they're best used for.

Construction

How are ceramic tiles made?

Ceramic tiles are made using natural red, brown or white clay. Firstly the clay is fired at a high temperature to reduce the water content, the glaze followed by the pattern is then applied. Voila, then you have your finished your product.



How are porcelain tiles made?

Porcelain tiles are made using very specific clay, with finely-ground sand and feldspar added to the mixture. The tiles are fired at a higher temperature than ceramic, this helps to make porcelain tiles super hardwearing.



Porcelain Vs Ceramic Tiles

	Ceramic	Porcelain
Construction (how are they made)	Made with red, brown or white clay Softer and less dense	Made with white clay, sand and feldspar Fired at a higher temperature Harder and more dense
Pros	Easier to use Available in more up to date and intricate designs.	Absorbs less water. More hard-wearing.
Cons	Can be prone to cracking in cold weather.	More brittle. Only available in basic or very simple designs.
Best used for	Walls and floors. Home interiors. Commercial interior walls. Low foot traffic areas Inside.	Floors. Use on walls depending on weight Commercial properties – hotels, offices, retail outlets. Areas with very high moisture levels such as wet rooms. High foot traffic areas. Outside.
Price	Affordable	Use on walls depending on weight
Ease of cutting	Easy to cut and shape.	Commercial properties – hotels, offices, retail outlets.
Interior / Exterior use	Interior only	Areas with very high moisture levels such as wet rooms.

DENSITY & DURABILITY

Porcelain tiles are denser than ceramic, and therefore less porous. Meaning they're harder, therefore more durable and absorb less water. This makes them more suited to high footfall areas which will see heavy use. This doesn't mean that ceramic is not as good however! As it's less dense, it's also less brittle and it's an easier to work with. To you DIYers out there, make life a little easier for yourself and use ceramic.

PEI Ratings

The Porcelain Enamel Institute rating (PEI rating) is a quick and easy way to see which tile is suitable in your home depending on how many times the area you are tiling is walked over.

Tiles are graded from 0-5 depending on the hardness of the tile:

PEI 0 - No foot traffic (wall tiles)

PEI 1 - Very light traffic (e.g. bathroom)

PEI 2 - Light traffic (e.g. bathroom and bedroom)

PEI 3 - Light to moderate traffic (suitable for most domestic floors)

PEI 4 - Moderate to heavy traffic (suitable for domestic floors and commercial uses)

PEI 5 - Heavy traffic (suitable for all domestic and commercial uses with heavy footfall)

Most ceramic floor tiles are graded between 3 and 4. Porcelain tiles tend to have a rating between 3 and 5.

What are tiles?

Deep Abrasion Test

For materials to be used in heavy traffic areas, the test to be taken as reference is the deep abrasion test.

In this test the surface of the material is scratched and removed and through a visual evaluation the lab check the visibility of the treated area comparing it with the around surface. If isn't visible any strong difference means that the material is suitable for heavy traffic areas. Full body products are the one who can normally pass this test.



Anti slip test

There are different tests made in order to define the slip resistance of the materials, in order to define the suitable products for areas frequently wet (pool areas, outdoor areas, spa...)

We'll mention some of them:

R evaluation rate, normally used for materials where the roughness is what is providing the anti slip characteristics.

R value from 11 and above are considered anti slip materials.

Ramp test evaluation, which is a specific test for material with good anti-slip performances and smooth surfaces. Is the test used to classify our barefoot products.



WHAT TILES DO I HAVE? HOW TO TELL THE DIFFERENCE

The quickest and easiest way to tell whether you have porcelain or ceramic tiles is to check the box or the manufacturer's website. That simple, right?

CERAMIC OR PORCELAIN TILES FOR...

The Shower

As porcelain is nearly waterproof, porcelain tiles are the best material to use when installing a wet room due to the levels of moisture.

Ceramic is perfect to use all over in a standard bathroom especially with the wide choice of designs available including some with anti-slip properties.

A tight budget

If you're on a tight budget, ceramic tiles are likely to be the best solution. The price will be kinder on your bank account, and cheaper tiles don't have to mean compromising on style. Ceramic tiles are available in a wide range of patterns and styles to suit any look. There's something out there for everyone.

High foot traffic

The durability of porcelain tiles make them perfect for high traffic areas as they're resistant to scratches and scuffs. Whether in an area of the home that sees high footfall, such as the hallway or kitchen, or in a commercial space, porcelain is the most hardwearing.

However, compared to other flooring options such as laminate or carpet, ceramic tiles still represent a durable and hard-wearing choice.

A DIY project

Porcelain tiles are made using very specific clay, with finely-ground sand and feldspar added to the mixture. The tiles are fired at a higher temperature than ceramic, this helps to make porcelain tiles super hardwearing.

Your patio or outdoor space

Porcelain's level of water resistance means it's perfectly placed to weather everything that nature has to throw at your new patio. In cold weather, ceramic may crack, meaning you'll be needing a replacement floor much sooner than you'd like. In this case porcelain will offer you peace of mind.

The following guide lines can be applied to the majority of our standard products. We could anyway find some exception due to specific conditions or requirements. These Icons are very important because it is the standard language used by RAK Ceramics on classifying and describing their products. The same icons are used on the panels and they give immediately all the info we need to know about the products we are presenting to a customer.

Typology

We do have to main families of products: Porcelain and Ceramics

The international way to classify them is the water absorption test. As lower the water absorption is, as lower the porosity is, and higher the strength is, which means the Porcelain tiles are more resistant and durable then Ceramic tiles. Porcelain tiles have better performances than Ceramic tiles thanks to better raw materials used for the body composition and glaze as well, and different production conditions with higher firing temperatures. These points are drastically increasing the production cost and clearly the selling price of GP compared to Ceramics.

Classification of dry-pressed ceramic tiles according to their water absorption 'E'

Group BIa – Ceramic tiles with water absorption $E \leq 0.5\%$
 Group BIb – Ceramic tiles with water absorption $0.5\% < E \leq 3\%$
 Group BIIa – Ceramic tiles with water absorption $3\% < E \leq 6\%$
 Group BIIb – Ceramic tiles with water absorption $6\% < E \leq 10\%$
 Group BIII – Ceramic tiles with water absorption $E > 10\%$

Porcelain: (Group BIa – Ceramic tiles with water absorption $E \leq 0.5\%$) is divided in:

Porcelain tiles, which means glazed products, where design, colour and glaze are applied at the glazing line. Glaze is made from silica and other ceramic materials which are going to be fused to the body of the tiles during firing.

Full Body Porcelain Tiles, where the colour and the movement we can see on the top of the surface are made from coloured atomized powders. We can find the same movements and colours in the whole body of the tile. We can remove layer of material from the surface and will find the same colour anyway. This is the reason why Full body tile are recommended for heavy traffic areas, where the abrasion could really remove part of the surface.

Double charge and products named Martinelli are part of full body porcelain tile.

Ceramic is divided in:

Ceramic Red Body: (Group BIII – Ceramic tiles with water absorption $E > 10\%$)

Economic products produced with most part of local raw materials for the body formula.

Ceramic White Body: (Group BIII – Ceramic tiles with water absorption $E > 10\%$)

We don't have anymore many products with this body, specifically recommended for wall tile installations.

Gres White Body: (Group BIb – Ceramic tiles with water absorption $0.5\% < E \leq 3\%$)

This body is actually used in some brick and small size collections. These products are suitable for wall tile installation as well as floor tile.

Edge

Rectified: Tiles that are cut/ground on all four sides after the firing stage to maintain uniformity on the length, width, straightness of sides and rectangularity/squareness.

Straight: Edges are made and defined during the pressing and firing phase, and no any additional treatment is applied. Straightness of sides and rectangularity/squareness isn't as much accurate as in rectified products.

Surface Structure

These icons describes the relief effect of the tiles, related to the punch used during the production. We might have some product where the punch is classified as smooth but we can feel some relief created by additional application as granules.

Smooth: Flat punch has been used for the production which means flat surface of the tile. No relief effects are felt touching the surface.

Light Structure: A structured punch has been used for the production, providing the relief effects we can find in the most part of stone or concrete products in PT and some in RB as well. This effect is normally clearly visible catching a light reflection on the surface of the tiles.

Heavy Structure: A structured punch has been used for the production, providing the relief effects we can find in the most part of RB decors or some PT products as Surface R11 with line.

Finish

These Icons describes the kind of treatment applied or not, on the surface of the tile, after firing, before the end of the full production flow.

Is very important to keep in mind that the same Finish might have different surface look.

Natural: There's no treatment applied on the surface after firing.

Lappato: Soft and irregular treatment of the surface, creating normally, but not always, contrasts between matt and glossy areas. PT and FB can both have lappato finish. On the FB tiles this treatment might be defined as Semi Polished, but this name is no longer used in our catalogues, and even from a technical point of view Lappato definition is more accurate.

This light treatment is made after firing, with a long sequence of abrasive tools which are working on the surface of the tile without removing any material from the top of the tiles.

Full lappato: 100% uniform treatment on the surface of glazed products, creating normally a glossy uniform surface look. Normally it can be done only on PT.

This light treatment is made after firing, with a long sequence of abrasive tools which are working on the surface of the tile without removing any material from the top of the tiles.

Polished: Very aggressive treatment to obtain a perfect flatness of the complete surface. This is a specific treatment for FB products obtained by a first phase where a thin layer of material is removed to create the flatness which will be the base for the second part of the treatment to define the final Surface Look.

The reason why it can be done only on FB tiles is because these are the only products where we can remove a layer find below the same colours and movements on the body of the tiles. Any PT could handle this treatment.

Honed: 100% uniform treatment on the surface of PT and FB products, to obtain normally a Satin or matt Surface Look. This light treatment is made after firing, with a long sequence of abrasive tools which are working on the surface of the tile without removing any material from the top of the tiles.

Surface Look

This description is related only to the look of the surface, keeping always in mind that we might have different surface look combined with the same finish.

Finish and Surface Look are two different things, and is so important to spend time to learn this point, and consider that this description works for both Porcelain and Ceramic. To better understand how surface look works combined to the different finishes, find below this Scheme to define at least 98% of our products. Some exception could be founded.

	Natural	Lapatto	Full Lappato	Polished	Honed
Matt	yes	yes	-	-	-
Satin	yes	-	-	-	yes
Glossy	yes	yes	yes	yes	-
High Glossy	yes	-	yes	yes	-

Colour Variation

These icons define the shade variation inside each box, and it is a very important information to be transferred to the customers to avoid any future complains.

The grade starts from a plain and uniform tonality up to a possible very strong stonalization.

This variation should not be confused with the number of patterns used in the new products, which normally are:

- 12 faces of 60x120
- 24 faces of 60x120
- 5 faces for big slab sizes
- 1 for counter top

Open book effect isn't counted in this scheme

Indication for use and Suggested Application define the type of ambience's and where to use each single material.

All these information are showed in the catalogues as well as in the panels which means that they are always available when we are presenting the products.

Icons

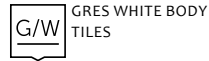
TPOLOGY



PT PORCELAIN TILES



FB FULL BODY PORCELAIN TILES



G/W GRES WHITE BODY TILES

EDGE



RECTIFIED



STRAIGHT

SURFACE STRUCTURE



S SMOOTH

Tiles with an even and regular surface, free from perceptible projections, lumps, or indentations.



LS LIGHT STRUCTURE

Tiles with an uneven, irregular surface, with a structure perceptible to the eye and touch.



HS HEAVY STRUCTURE

Tiles with a highly irregular surface.

FINISH



N NATURAL

Pressed tiles without further work after firing.



L LAPPATO

Semi polished/honed products achieved by polishing the tile's surface with an abrasive wheel, not long enough to attain the luster of a typical polished tile.



FL FULL LAPPATO

A ceramic lapping process performed with the finest abrasive grain, aimed at removing the smallest imperfections and glaze.



P POLISHED

Pressed tiles with a smooth pad, subjected to a strong mechanical processing, by removing a significant amount of material after firing, making the surface bright.



H HONED

A silky smooth surface, with a satin look, that is soft to the touch and pleasant to walk onto.

INDICATIONS FOR USE

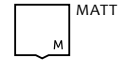


WALL TILES



FLOOR TILES

SURFACE LOOK



M MATT

Natural looking surface.



S SATIN

Satin-like surface look. Smooth and velvety to the touch.



G GLOSSY

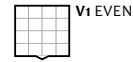
The resulting surface has a medium degree of reflection.



HG HIGH GLOSSY

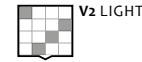
The final appearance of the surface is highly reflective, almost mirror-like.

COLOUR VARIATIONS



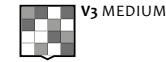
V1 EVEN

The least amount of shade variation attainable.



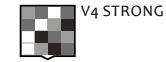
V2 LIGHT

Light to moderate shade variation within each carton.



V3 MEDIUM

Medium to high shade variation within each carton.



V4 STRONG

Very high shade variation within each carton.

SUGGESTED APPLICATIONS



DOMESTIC PURPOSE

Residential areas, hotel rooms, bathrooms.



LIGHT COMMERCIAL TRAFFIC AREA

Indoor public areas subject to medium pedestrian traffic such as restaurants, bars, offices, shops, hotel public areas, convention rooms.



INDUSTRIAL TRAFFIC AREA

Indoor public areas subject to heavy pedestrian traffic such as airports, railway and underground stations, shopping malls, schools, museums and libraries, hospitals, banks and public offices, car showrooms, sport centers, hotel lobbies.



OUTDOOR

Outdoor public environments subject to medium pedestrian traffic such as outdoor terraces, stairs, corridors, raised paving, private garden, swimming pool and wellness areas. Always check the slipperiness characteristics according to the intended environment, in conformity with applicable regulations or laws.



HEAVY COMMERCIAL TRAFFIC AREA

Industrial floors such as warehouses, deposits, factories.



FACADE

Ventilated façade, low and high rise.

Choosing The Right Tile.

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

How To Choose Tiles

Consider the following:

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

These answers will direct you to the type of tile you need.

Next you should start looking for inspiration! Our trend edits and real homes features are great places to pick-up fresh ideas for your project.

If you think about the look and feel of the rest of your home, what type of look do you tend to veer towards?

We find there are five main looks people tend to choose:

- Clean, Crisp & Contemporary
- Rustic & Old Style
- Simple Neutral Tones
- Making a Style Statement
- A Complete Mixture

Then, what sorts of colours do you tend to use?

- Lots Of Colour
- Subtle Colours
- Shades Of Grey
- Shades Of Beige
- White
- Black
- Mainly Neutral With A Dash Of Colour

By answering these two simple questions, we are able to paint a picture of the kind of look you might like. For instance, if you have told us you are tiling a kitchen wall, you like a rustic style and you like subtle colours we could recommend this:

But if you said you like a rustic style but also like to make a statement we might go with this one:

So for someone tiling a hallway who likes to make a style statement we might recommend a tile from our Feature Floor's collection.

Or sometimes you may like to make a statement but have done that on your walls so would go with something more subtle on the floor, like a wood effect tile:

It's about finding what is right for you. Just because you are choosing a tile and ultimately you might be shopping for tiles because you want a hard wearing floor covering or you want a waterproof area in your bathroom, you shouldn't lose sight of who you are and what you like.

It is possible to achieve the functional whilst maintaining the inspirational and ultimately have a home that you love and deserve.

So, key things to remember

- Stick to what you like, don't be led down the 'I like that but I'm not going to use it because I might go off it' path
- In the case of tiles, size really doesn't matter. If you want to use a large tile in a small bathroom do it – the less grout lines the better – this will actually make your room look bigger. Equally, if you want to use a small mosaic tile do it, or even mix sizes. It's your home, no one else's.
- Some tiles are only suitable for walls and this completely depends on the thickness and durability, however, unless it's enormous, there is no reason whatsoever that you can't use a floor tile on a wall if you want to do that. Increasingly a lot of tiles are multi-use meaning that they can be used on both walls and floors for a more seamless effect.



04.

Tiling Checklist & Tile Safety.

Tiling Checklist: 22 Items To Tile Safely

So you've decided to do some tiling!

Before you get started, it's important to make sure you have all the equipment you'll need to hand.

We've put together this tool & safety checklist to get you started!

Manual Tile Cutter:	A very useful tool that can cut most tiles. On average they are around 300mm long.
Electric Tile Cutter:	Has the ability to cut up to 25mm thick tiles with a choice of blades which varies depending on your tiles, make sure you have the correct one though!
Notched Trowel:	This tool is used to spread and comb the adhesive you will be using to affix the tiles to a surface.
Tape Measure:	A basic, no frills tape measure will do the trick here! No need to get fancy, they all measure the same.
Bucket Trowel:	A wide-bladed tool you'll need for scooping adhesive from a mixing bucket.
Spirit Level:	An instrument designed to indicate whether a surface is horizontal (level) or vertical (plumb). It is essential that you have a good quality spirit level.
Set Square:	Used for setting out and laying tiles on the square.
Bucket Trowel:	A wide-bladed tool you'll need for scooping adhesive from a mixing bucket.
Tile Scribe:	A sharp blade for cutting through the glaze of a tile.
Caulking Gun:	A tool that holds a tube or cartridge filled with silicone or latex, used for sealing gaps and bonding tiles.
Tile Nippers:	Special pliers that cut away little sections of ceramic tile to create small, irregular or curved cuts
Sponge:	For cleaning away excess grout.
Grout Float:	For spreading grout into the joints between the tiles.
Grout Profiler:	Used to smooth and finish cement based grout joints after washing off.
Length of timber:	Used to make a tile staff. This will help to set out and position tiles when affixing to walls and floors.
Tile spacers:	Plastic pieces used to evenly space tiles.
Mixing bucket:	Standard bucket for mixing adhesive.
Tile file/ Rubbing stone:	For smoothing down edges after cutting a tile.
Hammer:	For tapping nails into the wall to support the timber baton.



Safety Equipment

Now you've got your tools in order, you'll want to gather the correct protective gear.

These four items are essential to have before starting any tiling project:

Eye protection

Always wear impact goggles, even a tiny fragment of tile can cause an injury or serious discomfort. A pair of goggles will prevent anything from being deflected into your eyes, they're much cheaper than eye patches and contrary to popular belief, nobody suits the pirate look!

Hand Protection

Gloves are essential. Tile fragments can be really sharp, even a small one can cause an injury. At a push even a pair of household rubber gloves will help to prevent this, although we would recommend investing in a good pair.

Ear Protection

When using an electric tile cutter things can get especially loud. Make sure you wear ear defenders, it might not seem it at the time, but prolonged exposure to this level of noise can cause lasting damage to your hearing.

Voltage Tester 'Life Saver'

They're called a life saver for a reason, do not under any circumstances start work around electrical outlets or sockets without one. Firstly, test it on a wire that you know is live, and then one you presume is dead. Simply press the button and it will beep if it's close to a live wire, otherwise you should be safe. They only cost a few pounds, every household should have one. So, key things to remember

- Stick to what you like, don't be led down the 'I like that but I'm not going to use it because I might go off it' path
- In the case of tiles, size really doesn't matter. If you want to use a large tile in a small bathroom do it – the less grout lines the better – this will actually make your room look bigger. Equally, if you want to use a small mosaic tile do it, or even mix sizes. It's your home, no one else's.
- Some tiles are only suitable for walls and this completely depends on the thickness and durability, however, unless it's enormous, there is no reason whatsoever that you can't use a floor tile on a wall if you want to do that. Increasingly a lot of tiles are multi-use meaning that they can be used on both walls and floors for a more seamless effect.

Tile Preparation.

Before you get started with your project, there's three things you should do to prepare.

Measure, Measure And Measure Again

Accurate measurements of your tiling area are important to make sure you order the correct amount of tiles - not too many, not too few.

- Measure the height and width of the area you are going to tile with a tape measure, times the two sizes together and this is the number of square metres you will need to order.
- For irregular sized rooms, divide the area up into different segments and work the areas out individually, add the resulting numbers together to calculate your square metre requirements.
- Measure any doors, windows or obstructions and take the size away from the total.
- Allow for an extra 5-10% to account for any breakages and cuts (for larger tiles you may need to account for more).



Prepare The Tiling Surface

The tiling surface needs to be prepared before you can start affixing tiles, ensure you follow each of these steps:

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.

Dry:

Ensure the background and surface is fully dry.

Sound/ solid:

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

Flat:

Ensure the surface is flat with no more than 3mm in variation over a 2 metre edge. On floors, the use of a levelling compound may be recommended.

Prime:

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

If you think about the look and feel of the rest of your home, what type of look do you tend to veer towards?

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

Make A Tile Staff

Finally, we need to make a tile staff, this length of timber will help you to gauge how your tiles will fall around obstacles such as windows and doors. Here's how to make one:

- Lay your length of timber on a flat surface
- Place a tile on the length of timber flush with the timber's edge
- Mark the timber at the end of the tile with a pencil
- Ensure that the marks are square
- Position a spacer at the edge of the tile and place a second tile against that, again mark the timber
- Repeat this process until you reach the end of the timber
- Cut off any excess timber



You now have a tile staff, which will come in handy when working around tricky areas.



Planning Your Tile Layout.

Planning your project's tile layout is really important to ensure you get the look you set out to achieve.

There's nothing worse than starting to set your tiles in place with adhesive to realise that one tile's been misplaced.

Here we outline a few tips on how to layout tiles for your walls and floors.

Laying Out Your Floor Tiles

When laying out your floor tiles, our main aim is to make sure the centre of the floor is positioned correctly first. From there we extend the tiling pattern towards the edges of the room.

Mark your halfway points:

With chalk or a pencil measure a centre mark in between opposite walls and draw a straight line down.

Expert tip: Don't assume that the opposite walls are equal in size, a lot of rooms aren't perfectly square!

Find the middle of your centre line:

Repeat this again by measuring the centre of the line you draw

Draw a new, perpendicular line:

Lay the square onto the centre line and centre mark and draw a line 90° to the first line.

Start laying our your floor tiles

Starting from the middle point, dry lay a row of tiles in both directions up to the wall. Make sure you include 3mm tile spacers so that the joints are even. You can also use your tile staff to work out where the tiles will fall.



Expert Tip: If there is only a thin piece of tile left at the wall, you can rearrange the centre tile so there is a larger section of tile. Leave about half a tile or more as it can be difficult to fit smaller sections of tile. You may need to re-mark your lines on the floor.

Laying Out Your Wall Tiles

Similarly to laying out a floor, you must first find the centre point of the wall you want to tile and then work out towards the edges.

Find the centre of the wall:

Find the centre of your window or wall and mark a pencil line.

Measure from the middle:

Using your tile staff, measure from the halfway point or centre of the window up and down so that you can see where each tile will fall.

Expert tip: Where the bottom tile is less than half a tile, rearrange slightly by raising the tile staff to half a tile and re-mark once you're happy.

Set your starting point from the bottom:

On the mark near the floor, use your spirit level to draw a straight line across the wall. Get a piece of timber baton and lightly hammer it into the wall, but not fully as you will have to take it out later. Use this piece of timber as your starting point to tile up from.

Finishing up

Mark out again with the tile staff, this time horizontally and hammer in another piece of timber up the wall. This should make a right angle with the timber pieces. Alternatively you can work with a pencil line.



Cutting Tiles.

HOW TO CUT TILES: 3 TOOLS & WHEN TO USE THEM

Knowing how to cut tiles is an important skill for any DIY project. During your tiling project, you will come across the need to cut some tiles to size.

Whether you're cutting them to fit around certain obstacles whether you need trim tiles around the edge, here are three tools you'll need to master for different tiles and situations.

Expert Tip: Measure twice, cut once. Remember, you can't 'uncut' a tile!

Using a Manual Tile Cutter

Best for: Straight cuts to your tiles.

Measure

Measure where the tile needs to be cut. To do this place a tile on the last full tile and mark with a pencil where the overlap is, this is where you need to cut.

Note: Make sure you leave enough room for the grout joint and movement joint on corners and perimeters. Movement joints must not be grouted, the use of sealant is recommended!

Place the tile in the cutter

Place the tile in the manual tile cutter, square it up to the plate and get the cutter and pencil mark in line.

Score the tile

Press down firmly on the handle of the cutter and push forward across the tile to score a line.

Apply a bit of pressure

Press and apply pressure on both sides of the tile and it will snap into two pieces.

Note: some cutters will have an all-in-one breaker built in. Just put the clamp part on the tile and push down on the handle to snap the tile.

Check the edges

If the cut isn't clean and the edges are slightly rough, use a file or rubbing stone to smooth the edges.

Use tile nippers to cut small pieces

For smaller or curved pieces use tile nippers to cut small pieces off to achieve the correct size or shape required.

With a Tile Scribe

Best for: Cutting thinner tiles

Measure

Measure where the tiles needs to be cut using a pencil and a metal ruler, draw a straight line across the tile.

Score the cut line

Hold the metal ruler along the line to ensure a straight cut. Holding at a 45° angle, use the tile scribe against the side of the ruler and cut across the glaze.

Break the tile cleanly

Use a long, thin object underneath the scored tile, such as a pencil and apply pressure to both ends of the tile. It should break cleanly into two pieces.

Check the edges

If the cut isn't clean and the edges are slightly rough, use a file to smooth the edges.

With an Electric Cutter

Best for: Cutting right angles, curved edges and on thicker tiles such as porcelain and natural stone.

Setup the Electric Cutter

Firstly, make sure the electric cutter has water in the tray to prevent the blade from overheating, this will also help to reduce the dust produced whilst cutting.

Mark out lines for curved edges

When cutting curved edges, mark with a pencil the area which needs to be cut and mark several lines up to the curved marking. This is because you cannot turn the tile during the cutting process.

Cut into the lines

Use the electric cutter to cut each of the lines up to the point of the curved line, it should look like a comb when you're finished.

Mark around the curve with a tile scribe

Draw around the curved mark with your tile scribe to score and cut into the glaze.

Nip away at the remaining unwanted area

Use your tile nipper to break away small pieces at a time, up to the curve and then file down until smooth..

Laying Tiles.

HOW TO LAY YOUR FLOOR AND WALL TILES

Once you've planned your layout and the starting point of the first tile, it's time to fix them in place with tile adhesive.

Expert tip: Always ensure that the correct adhesive is used with the correct tile type/size and surface. Contact the adhesive manufacturer if you're unsure, to find out the correct product required.

Affixing Floor Tiles

Plan your route and exit

Make sure you plan ahead so that you are able to exit the room once you're finished without stepping on any tiles as they won't have set.

If it is essential that you can access the room then you can tile half the space at a time so that you are still able to use it.

Mix your tile adhesive

Mix the recommended tile adhesive in a mixing bucket as per the instructions on the bag. Depending upon the location and background, a flexible water-resistant cement based adhesive might be used.

Start spreading the adhesive

Working from your set out lines and/or straight edge spread the adhesive evenly on the floor.

Keep it even

Hold your notched trowel (minimum 8 - 10mm notched size) at a 45° angle and drag across the floor spreading evenly and ensuring that the notches are in the same direction.

Note: Only cover a small area at a time (approx 1 square metre) as the adhesive will begin to dry on the surface.

Place your tiles

Place the tile on the bed of adhesive, press down and twist to ensure the adhesive sticks properly.



Note: Larger tiles may require a thin layer of adhesive on the back of the tile as well

Check it with a spirit level

Put the spirit level on the tile both ways to ensure it is even and flat. Insert a tile spacer in between each tile.

Clean up as you go along

Wash down the surface of the tile and clean the joint as you go along.

Affixing Wall Tiles

Mix your tile adhesive

Mix the tile adhesive in a mixing bucket as per the instructions on the bag. Depending on the type/size of your tiles and the background, the use of ready-mix tile adhesive or cement based powder adhesive may be recommended.

Start spreading the adhesive

Starting from above the timber baton and centre line, start to spread the adhesive on the wall.

Keep it even

Hold your notched trowel (minimum 6mm notched size) at a 45° angle and drag it across the wall spreading evenly. Ensure that all notches are running in the same direction.

Expert tip: Only cover a small area at a time (approx 1 square metre) as the adhesive will begin to dry on the surface.

Place your tiles

Place the tile on the bed of adhesive, resting on top of the timber baton and set out lines.

Apply pressure bond the tile and adhesive

Once the tile is lined up, twist and slide it into place to ensure the adhesive sticks properly.

Insert a tile spacer

Insert a tile spacer in between each tile to ensure consistency.

Clean up as you go along

Wash down the surface and clean the joint as you go along to remove any excess adhesive.



Grouting & Finishing.

How To Grout Tiles

Once the tiles have been laid and left to set, it's time to start grouting! Always ensure that you have the correct grout for your tile type and background material, if you're unsure then contact the grout manufacturer.



- 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.
- Mix water and grout powder in a mixing bucket as instructed on the packaging. Be careful not to make too much as it will harden quickly and become unusable.
- (Note: when mixing grout for walls, make the grout slightly thicker as it will run down the walls otherwise)
- Place some grout on the tiles, hold the grout float at a 45° angle and apply the grout ensuring all of the joints are filled.
- Once all of the joints between the tiles are grouted, leave it to dry for 10 - 15 minutes then wipe down the tile surface with a damp sponge. Be careful not to put too much pressure on the grout joints.
- (Note: tiles may need a second wash down to fully rid them of grout residue)
- Leave the tiles for another 60 minutes (approximately) to let the grout harden a little more. Hold your grout profiler at a 45° angle and drag it across to take off any excess grout and smooth it off.
- Using a clean cloth, polish down the tiles until completely clean.



LATICRETE IS A RECOMMENDED PARTNER OF RAK CERAMICS

Finishing Floor Tiles

It may be necessary to waterproof your tiles in certain places, it's recommended this is done using silicone. Follow these steps to finish your project off:

- Cut the end of the silicone cartridge slightly wider than the sealant gap and place it into the caulking gun.
- Hold the tip at a 45° angle and apply into the corners, squeezing the caulking gun and working from one end to the other whilst maintaining an even and consistent amount of silicone.
- After application, use a sealant shaper or a wet soapy finger (wear a rubber glove) to take off any silicone and smooth out the edges.



How To Drill Through Tiles

Sometimes you may find you need to drill holes in your tiles to install additional fixtures and fittings. If done incorrectly you risk damaging your tiles but with the right tools and tactics you can successfully drill through your tiles without cracking them.

How To Drill Through Ceramic Tile

To drill a hole in ceramic tiles you can use a carbide and steel combination drill bit. Start by marking the centre of the hole, then cover with a strip of masking tape to prevent your drill from slipping.

Ensure you have a source of water to spray or apply to the drilling area; this will keep the drill bit cool and remove any debris that builds up while drilling.

Start drilling at a low speed with only a moderate amount of pressure – too much and you could crack the tile. Keep drilling until you penetrate the backing board – you can use a regular drill bit for this if you prefer. Keep drilling slowly to make sure you don't damage the material behind the tile.

How To Drill Through Porcelain Tile

Porcelain is a denser, harder material than ceramic, which makes drilling through them a slightly bigger challenge. Because of this, you should use a diamond tipped drill bit to drill your hole.

As with ceramic tiles, mark the centre of the hole to be drilled, then cover it with masking tape, and ensure there's a constant supply of cold water being sprayed onto the drilling area.

The easiest way to drill a hole in a porcelain tile is by using the 'lean in' method - drilling at an angle until the drill has cut into the tile, at which point bring the drill perpendicular to the tile. Start slowly and keep applying just enough force to keep the drill working; exert too much pressure and you risk the tile cracking.

Drilling Large Holes In Tiles

A larger hole might be needed to fit radiators and other pipes. For this you'll need to purchase a hole saw kit if you don't already have one; the bits should fit your existing drill.

Place the correct sized bit onto your drill and start to slowly drill through. Keep the drill steady to avoid slipping on the tile's surface. Build up speed slowly until you hear the drill break through the glaze of the tile, then carry on until it's all the way through.

Looking After Your Tiles

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:

- Soon after the tiles have been fitted and settled, use a sealer on the grout joints. Make sure to test the sealer on a spare tile or small area first to make sure it doesn't damage or discolour the tiles in any way.
- If any grout cracks or gets damaged, remove the grout in the area with a grout rake, and reapply.
- For general maintenance, regularly sweep the floor and clean using a damp mop. This should be about once a week, depending how high traffic the area is.
- For a more thorough clean, use a non-abrasive detergent and warm water to clean. We recommend using Fila Cleaner.
- Don't use any acid or bleach based cleaners.

Replacing Damaged Tiles

It happens unfortunately, occasionally you might have to replace a tile that has been damaged. Don't worry though, they're fairly simple to replace, just follow these steps:

- 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.



Large Format Porcelain (MAXIMUS)

What Is Large Format Porcelain (MAXIMUS) Made Of?

If you are relatively new to the concept, large gauged porcelain slabs are exactly how they sound; they are BIG and BEAUTIFUL with sizes as large as 60" x 120". Along with kaolinite, porcelain contains silica, feldspar, and other mineral oxides, which give the material its strength and durability. The clay is put into a kiln and fired at extremely high temperatures. The end result is a super dense material nearly impervious to stains, heat, UV rays, water, scratching, chips, and cracks. Pigmented glazes are added during manufacturing to create different colours and patterns on the porcelain slab.

Porcelain can be either glazed or unglazed. A matte or high-gloss glaze is applied (this glaze can sometimes include a pattern); it's then fired a second time, so the glaze fuses and adheres. This glaze decreases porosity, increases durability, and creates a glossy finish.

Make A Design Statement With Large Format Porcelain (MAXIMUS)

Imagine a tiled space with virtually no grout lines. Imagine limitless possibilities for your surfaces and unparalleled flexibility for any kind of applications. Maximus is available in 3 thicknesses and a wide range of finishes and sizes. Heat resistant, recyclable, light weight, durable and easy to clean.

Maximus is the best answer to the most challenging architectural and interior design needs. It's an exciting time for homeowners considering kitchen or bathroom remodelling. Thanks to modern computer-aided manufacturing techniques, you have more choices at better price points than ever before in terms of materials for your home. Maximus is now available for kitchen and bathroom counter-tops. Thin-sheet large format porcelain is the perfect material for a kitchen back-splash, shower surround, fireplace surrounds, or even the bathroom floor!



The Pros of Large Format Porcelain (MAXIMUS)

This gorgeous floor and wall tile (and more!!!) Option is taking the design industry by storm and allowing home and business owners to create a seemingly beautiful transition within their space. With a stunning, wide selection, you are sure to fall in love with Maximus.

Large porcelain slabs have been a popular finish in Europe for a while, but since they've crossed the pond, they're making a big splash in the US! Traditionally when we think about porcelain tile, what inevitably comes to mind are small squares, or 4x6" (or larger) subway style tiles separated by grout lines.

Suppose you've renovated your home anytime in the last decade. In that case, you might have replaced your ugly tile surfaces with granite or, if you've remodelled more recently, engineered stone like quartz. Today, thanks to computer-aided manufacturing technology, large format porcelain tiles are available that recreate the look of natural material. They have a depth of pattern that is almost identical to natural marble, granite, wood linen, or any other natural material you can think of. Best of all, it comes with none of the maintenance issues or use restrictions of the natural material it emulates.

Large-format porcelain slabs come in two sizes and two thicknesses. Slabs are 118" x69" and 126" x 63". Both are available in 6MM thickness, and the 126" slabs are available in 12MM. It's an excellent durable material that is significantly lighter and less costly than natural stone slabs and tile.

Large-format porcelain is a stunning surface that:

- Requires no maintenance
- Is a hard and durable material
- Is installed with minimal grout; seams are basically imperceptible
- Porcelain slabs are designed for fast installs over existing surfaces, produce less waste, and are less expensive than stone.
- Porcelain is non-porous and etch, stain, and heat resistant

Porcelain slabs work in almost any situation. Counter-tops to shower surround, backsplashes, bathroom floors, fireplace surround, and anywhere you want a seamless look of continuous material, porcelain slabs are an excellent choice. With a wide range of natural finishes with the depth of natural material patterns, porcelain slabs are an excellent choice. If you want to stay on the cutting edge with your project, large format porcelain is a perfect choice.

Large Format Porcelain (MAXIMUS)

Application of Large Format Porcelain (MAXIMUS)

Among a variety of benefits, the broad spectrum of areas for application has to be one of large gauged porcelain tile's top features. Gauged porcelain slabs are not for the DIY project guru. Gauged porcelain slabs need to be handled and installed by trained craftsmen who have the unique tools needed for an installation that will look stunning and last a lifetime. Of course, these slabs can be used in the usual places where porcelain tile is typically installed such floors, walls, and backsplashes but it excels in areas you never thought porcelain tile would be found:

Counter-tops

Gauged porcelain slabs can be fabricated to be one continuous (up to 10') counter-top. Do you dream of calacatta marble counter-tops but would not dare install it because of the soft nature of the stone and maintenance nightmare? Gauged porcelain tile slabs are the perfect answer as they are durable, maintenance-free, and gorgeous replications of the most-loved natural stone slabs in the world like calacatta, cararra, onyx, travertine and more. Now, you can finish off your kitchen with stylish counter-tops that are as sleek as they are durable.



Sinks and Tubs

With some beautiful gauged porcelain tile, a waterproof substrate, a little caulking, and a creative mind, memorable and desirable sinks and tubs can easily be created. Not to mention, this chic look can provide your bathroom with the perfect finishing touch.



Fireplace Surround

Imagine a fireplace with a gorgeous stone or wood design that reaches from the floor to the ceiling. Gauged porcelain tile lets you extend your design and create a magnificent backdrop for your fireplace.

Exterior Cladding

Due to its many design options, size, durability, fire resistance, and relatively light-weightedness, gauged porcelain tile is appearing on the exterior cladding of some of today's most prestigious architectural structures. Not only can this product be considered for a façade of a large commercial building but it also has options for the exterior of residential homes as well. The technical performances of the gigantic sized Maximus slabs are the perfect solution for the external cladding of buildings. High resistance, light weight, easy to install and maintain, with a high aesthetic and energy value that enhance the building industry.



Furniture

Cutting-edge furniture designers are using gauged porcelain slabs for creating stunning tabletops, benches, shelving units, doors, cabinets and more. With clever designs and custom furnishings, the uses for this material seem endless. The best answer to a big trend. Maximus is ideal for dressing up modern spaces and covering doors, tables, kitchen doors or living room furniture.

Choose your favorite decorating style in order to create a coordinated environment. Marble, metal, stone and concrete become part of the interior



Large Format Porcelain (MAXIMUS)

Installation Options

Like most counter-tops, when you choose large format porcelain, you have many options to choose from to meet your stylistic and design needs. Depending on the manufacturer, porcelain slabs come in various colours, all derived from natural pigments. You can also choose from a wide range of patterns and looks available, from marble or metallic to rusted steel, wood grain, or several stone species.

You also have a range of finishes to choose from as smooth or textured finishes can be easily achieved during manufacturing. High-gloss, matte or honed finishes are the most popular. While you won't have as many finish options like natural stone, the most popular types are available.

Because of how it's manufactured, porcelain's edges are unique. While you can create most of the standard edges, including round, bevelled, straight, bull-nose, cove, platner, waterfall, and others, they don't all translate well. Because porcelain's colour is "applied," you are limited as to which edge styles work. A fancy edge, with rounded corners, bevels, and grooved, will remove the pattern.

Because of the size of the slabs and the thinness of the sheets, porcelain can sometimes be applied over your existing counter-tops, sheet rock, tile, or other surfaces. This versatility can reduce costs because you don't necessarily need to pay the cost of removing your old surfaces.



The Bottom Line...

When it comes down to making a choice, ultimately it depends on your aesthetic style, your functional needs, and your budget. If you love being on the cutting edge of design or you're looking for beautiful, unique materials that can make a stunning impact, large format porcelain (Maximus) is an excellent choice. Maximus can fit into almost any design and any function within your home, from a feature wall or fireplace surround to creating a seamless look in the master bath shower surround and floor. It's even perfect for some outdoor applications as it's entirely UV resistant.

Porcelain is extremely hard and not prone to etching, staining, or other damage like natural stone. Unlike marble or stone, each porcelain slab is uniform, so you don't need to spend a lot of time visiting stone yards to choose the "perfect" slab. In fact, you can continue a vein across a complete wall or cabinet bank with book-matched slabs for a really upscale look. The bottom line is that large format porcelain is versatile, flexible, durable, affordable, and incredibly beautiful!



Versatile and simply beautiful, the Maximus slab revolutionizes the design and architecture world by opening up new perspectives in tiles application that were previously unimaginable.

All the continuous surfaces are designed for any type of application: floor and walls, cladding, furnishing, counter-tops and provide creative flexibility and high technical and aesthetic performances.

RAK CERAMICS
P.O. Box 4714, Ras Al Khaimah,
United Arab emirates (U.A.E.)
Tel.: +971 7 2467000
Fax: +971 7 2445270
email : info@rakceramics.com

RAKCERAMICS.COM

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CERAMICS