



ORIGINALSTYLE

Tiles to Inspire

Living

FIXING GUIDE



Living FIXING GUIDE

Contents

Introduction	3
Successful tiling	4
Glossary of tiling terms	5
The right tools for the job	6
Selecting your tiles / suitability	7
Shade variation	7
How many tile will you need?	8
Preparation	9
Marking out the work area	12
Cutting and drilling	13
Adhesives	14
Using spacers and levelling clips	15
Grouts	16
Finishing off	17
Cleaning	17
Photography	17
Limits of liability	18

Introduction

Ceramic tiles in the Living Collection are available in a wide range of patterns. All ceramic tiles conform to the European Standard BS EN14411.

Using this guide will help you to:

- Choose a suitable product for your project
- Calculate how many tiles you require
- Prepare and plan for the installation
- Mark out the work area
- Fix and grout
- Clean and maintain your finished installation

Successful tiling

The key to success is to:

- Gather together all the tools, tiles and materials you need before you start
- Plan the installation
- Thoroughly prepare the surfaces to be tiled;
time spent on this will save time later
- Keep the work area clear and clean as you go along
- Work methodically and avoid mistakes by allowing sufficient time for each task

This guide is not intended to be a definitive guide to fixing tiles. If you are uncertain about anything having read this guide you should consult a professional tile installer.

Please Note

It is the responsibility of the purchaser/installer of Original Style products to adhere to the following guidelines in accordance with the British Standards Institute Wall tiling Fixing Standards.

BS 5385-1:2018 Code of Practice

Wall and floor tiling. Design and installation of ceramic, natural stone and mosaic wall tiling in normal internal conditions.

To check the tiles by laying them out and viewing them prior to installation. Please be advised that installation constitutes acceptance of the quality, colour, texture, shade and size of the tiles. This applies even if the home owner is not present during the installation process.

To store products in an adequate, clean, dry and secure space that is free from frost and moisture.

To ensure that installation is carried out in adequate artificial lighting conditions.

To ensure that work is adequately protected during and after fixing.

Glossary of tiling terms

Adhesive	The glue used to fix tiles to the substrate. There is a wide choice available, so always ask your stockist for advice on your particular project and type of tiles.
Grout	A hardening compound used to seal the joints between tiles. There is such a wide choice available, it is best to seek advice from your stockist on your particular project and type of tiles to be used.
Movement joints	Where tiles meet another surface, the joint is filled with silicone sealant, not grout, to allow for minor expansion and contraction. Should be placed according to architect's specifications, over existing joints and any changes in plane Movement joints eliminate stress transferring from the substrate. Internal: Please refer to BS5385-1 2018.
Pointing	Where grout is mixed to a thicker consistency than usual and applied into the joints with a squeegee, pressed in firmly and finished off with a grouting tool to give a neat finish. Any excess is removed using a damp sponge and the surface wiped clean.
Render	A wall finish made up of sand and cement, usually made up of sand/cement in the ratio of 4:1.
Screed	A floor screed is usually a cementitious material made from 1:3, 1:4 or 1:5 ratio of cement to sharp sand.
Silicone sealant	A material with elastic and waterproofing properties used to fill movement joints instead of grout.
Solid bed	A method of tiling where there are no voids under the surface of the tile.
Slurry grouting	Where the grout mix is runnier than normal and is spread across a large area at a time using a spreader. Care is needed to ensure the grout goes right into the joint and no areas are missed out.
Stud wall	Internal walls in a home, usually constructed of plasterboard over a wooden framework.
Substrate	Any surface on to which tiles are laid.
Thin set	A layer of adhesive applied to a depth of less than 5mm / ¼"

The right tools for the job

These tools will help you complete your tiling project to a professional standard. Most are readily available to buy or hire.

Adhesive spreader/ bedding trowel	The notched edge of this tool ensures an even spread of adhesive of an even depth.
Chinagraph pencil	For marking any tiles that need cutting. This will not stain the tiles and will resist being washed away when using a water-fed cutting machine. Never use a felt tip pen as they can leave permanent marks.
Drill	Use a water fed carbide tipped drill bit or a water fed hollow tipped diamond coated drill bit.
Electric water-fed diamond wheel cutter	A water fed diamond wheel cutter is the best way of cutting porcelain and ceramic tiles. These are available from tool hire companies, tile shops, or DIY stores. Follow the manufacturer's advice regarding protective goggles, masks and gloves.
Epoxy squeegee	A rigid squeegee specifically designed for the application of epoxy grouts.
Eye protection, gloves and dust mask	It is vital that you use all possible protection when using any cutting or drilling machinery. Always use personal protective equipment as advised by the HSE. Visit www.hse.gov.uk for further health and safety advice.
Gauging trowel	For removing the grout from its container, or the vessel used for mixing the grout. Use it to place adhesive onto a bedding trowel.
Grout finishing tool	This tool is run along the grout lines before they set completely to give consistent, neat finished grout lines. A piece of dowel can work just as well. NB: NOT to be used on epoxy grout.
Spacers	These small pieces of plastic are inserted between the corners of the tiles or mosaic sheets to provide consistent spacing. Push them in side-on so they are at right angles to the surface, and place them at regular intervals to maintain the spaces, and remove them before the grout is applied.
Levelling clips & wedges	A system of clips and wedges used to achieve accurate levelling of tiles. They compensate for the slight bowing or warping that is common in some larger format tiles to prevent lipping at the grout joints.
Spirit level/laser level/ plumb line	One or more of these tools will be necessary to ensure that your tile installation is level and that verticals are straight. A plumb line can be made from a small weight on a length of string.
Sponges	Use to remove grout residue and for smooth joints. Always use new sponges and grouting tools rather than old sponges and tools which may have adhesive or grout residue which could scratch tiles.
Squeegee or rubber trowel	Used for spreading grouting compound into the spaces between the tiles.
Steel ruler/tape measure	For accurate measuring.
Scribe and snap straight cutter	A simple scribe and snap machine for straight cuts.
Tile gauge	A device for accurately measuring and shaping your tiles.
Tile nippers	A specialist tool for 'nibbling' away unwanted sections of tiles.
Wedges	These are wooden or plastic for minute tile adjustment.

Selecting your tiles

This is obviously the most important and enjoyable task. With such a large range of patterns to choose from, you may like to order some samples to see how they fit in with the rest of your furnishings and decorations.

Suitability of your chosen tiles is also an important factor.

Suitability of tiles for your installation

Each tile in the Living brochure has a suitability symbol with it to enable you to select tiles that are suitable for your application. Please refer to the latest version of the brochure for the most up to date range of products.

Glazed ceramic

These are through bodied types that have a glazed finish on the face of the tile. The glaze is like a glass and is stain and chemical resistant. Glaze colours and printed ink jet applied designs may be added to the glaze finish. All are suitable for wet and dry wall installations.

Shade variation

Shade variation may be an inherent feature of some Original Style ceramic tiles. We recommend that your tiles are loosely laid out and 'blended' prior to fixing to achieve the most pleasing distribution of shades. Differences in shade between batches can be more marked, so for this reason we recommend that you buy all the tiles at one time. It is advisable to add an extra five to ten percent for wastage. No liability for shading issues can be accepted after installation.

Please note that claims cannot be considered after the tiles have been installed as installation constitutes acceptance of the tiles.

How many tiles will you need?

Once you have decided on a type and size of tile, calculate how many you will need by measuring the area to be tiled.

How to calculate the square metre/square foot measurement of the area to be tiled:

Wall: measure the height of your room or the height you will require the tiling to end and multiply by the width.

The result will be the square metre measurement of the area to be tiled.

How to calculate the number of tiles required:

If the shape of the area to be tiled is a simple square or rectangle you can simply calculate the area of each tile and divide it into the area of the room. This assumes that the area being tiled is square at the edges, if not you will need to allow some extra for part tiles.

An alternative method is to make a scale drawing of the walls on a piece of graph paper, draw the outline of each tile and add them up.

We recommend that you allow for part tiles, wastage and any imperfections by adding 10 per cent to your order. It can be a false economy to only order the exact quantity. You may break some tiles when cutting or you may end up with awkward shapes that take more tiles than anticipated. It can be frustrating to get near the end of the job only to find that you are short of one or two tiles, especially as shade can vary between different batches. Keeping spare tiles in case of issues in the future (such as breakages and damage) is good practice.

The Living brochure also includes 'how many tiles will you need' tables for your information. Please refer to the latest version of the brochure for the most up to date range of products.

If you have any problems calculating the number of tiles required please do not hesitate to email our Customer Services Team at info@originalstyle.com.

Preparation

The secret to a perfectly laid wall is to lay the tiles as flat and as evenly as possible. To do this successfully you need the firmest, flattest and driest possible surface to work on. Some surfaces are ideally suited for tiling, others require a certain amount of preparation first, and a few are totally unsuitable.

Storage

Please store all Original Style tiles and any fixing materials such as grouts and adhesives in a cool and dry storage area. All tiles must be dry before installation. Original Style cannot guarantee that any products will be delivered completely dry.

Important note:

All surfaces must be allowed to dry out completely before tiling. Failure to do this can result in moisture being trapped behind the tiles which can react with some tiles causing them to deteriorate over a period of time.

Tiles are completely inflexible. With this in mind, it is important to ensure that the substrate will not move otherwise cracking will occur. If there is movement in the substrate, we strongly advise that you seek professional advice before proceeding any further.

Please look at www.schluter.com/6_1_ditra.aspx for further information.

Wall preparation

All walls should be primed before tiling.

Make sure the wall to which you are fixing tiles is able to take the weight of the adhesive and tiles. Add 3.5kg/m² or 6.4lb/yd² for adhesive and grout weight. The weights of the tiles can be found in the brochure and online.

Substrate	Weight per m ²	Weight per yd ²
Gypsum Plaster	20kg max	37lb max
Gypsum Plaster board direct	32kg max	59lb max
Sand cement render	40kg max	74lb max
Tile backer boards (polystyrene foam with cement base lattice outer)	40kg max	74lb max
Glass reinforced cement sheets	50kg max	92lb max

Painted surfaces are unsuitable for tiles. You will need to scrape off all loose paint and rub the whole surface down with coarse sand paper until all the paint is removed.

Plasterboard walls may be suitable for tiles, depending on their weight and how well the plasterboard is fixed to the stud wall underneath. You may need to seek advice on this. Normally a plasterboard wall which has not been skimmed has a load bearing of 32kg/m². These walls should be primed first, left to dry and then the adhesive applied directly to the wall. Add 3.5 kg/m² for adhesive and grout to the tile weight in kg/m² when calculating weights for wall load bearings.

Plaster is a suitable surface as long as it is dry and in good condition. Normally a plaster wall has a load bearing of 20kg/m². Remove any loose or crumbling plaster and repair it with new plaster or filler before rubbing down to a level finish. Prime the walls and leave to dry before commencing to tile. It is important to check weight restrictions before fixing tiles. Always seek professional advice if you are tiling over plaster. Plaster walls must be primed. Ardex P51 or Mapei Primer G are suitable.

Rendered walls can be tiled but, as with floors, new rendering must be allowed to dry out completely before tiling; normally a period of 21 days is recommended. Rendered vertical walls are a good base for tiles up to 15mm / 5/8" thick with a maximum height of 3.6m / 12ft approx. For tiles thicker than this the render must be reinforced with metal mesh screwed to the wall. Professional advice regarding this is recommended.

Papered walls cannot be tiled. Strip the paper completely, check for loose plaster or other damage, repair as necessary and then allow the wall to dry out thoroughly before priming.

Old ceramic wall tiles we do not recommend tiling over old tiles because of weight restrictions and stability. Old tiles should be removed and the exposed surface should be prepared as appropriate (see above).

Wet rooms and showers

Ceramic and porcelain tiles can be used in showers provided you take certain precautions in preparing the surfaces, and use the correct adhesive and grout. It is vitally important to prepare all substrates in any area subject to frequent water (such as around a bath, basin or shower) carefully to protect them from water absorption. The best substrates are normally water resistant boards such as Wedi or Marmox. The underlying surface must be waterproofed first, using a waterproofing kit known as a tanking system (see below), to prevent the ingress of water into the substrate. There must also be sufficient falls for water to drain away.

Tanking Systems

We recommend using a tanking system for power showers, shower cubicles, steam rooms and wet rooms in hotels, guest houses, leisure centres, fitness centres and in domestic homes. These normally consist of a primer, a liquid waterproofing membrane that you brush on to the wall and floor, and a tape for reinforcing all internal corners. Please refer to specific manufacturer instructions or, preferably, get a professional to do this job. Tanking a previously painted surface is not recommended. You can usually apply the tile adhesive 24 hours after the wall and floors are waterproofed. Both Ardex and Mapei supply tanking systems.

We recommend that all waterproofing processes are carried out by a professional.

Protecting your installation

We advise that you do not install any tiles until heavy construction has been completed. In between the installation and putting a floor into service, it is important to protect the tile and grout in order to avoid construction related cleaning issues. Do not use plastic covers as this may induce sweating and discolouration by not allowing the grout and bedding material to dry adequately.

Protecting your tiles

Before installation, please make sure you store any fixing materials and your tiles in their packaging in a clean and dry area.

Marking out the work area

Walls

First, make a tiling gauge: Use approximately 1m / 39" length of straight, planed, wooden batten approximately 30 x 20mm / 1 1/8" x 3/4" in cross-section. Use a pencil to mark off the length of your tiles/mosaic sheets, plus the space between them. For instance, if you are fixing tiles that measure 300 x 300mm / 11 13/16" x 11 13/16" and have gaps between each tile of 2mm / 1/16" you will mark every 302mm.

Mark out the work area. You must always check to see whether the ceiling is level first. Aim to position the tiles/mosaic sheets so that they fit either at the top or at the bottom. This way you will be cutting one edge. This can only be achieved if the floor or ceiling is level.

The first row you fix is the most important. If this is sloping or uneven, then all the other rows will be uneven too.

If the skirting board or floor looks even you may be tempted to start tiling directly up to it. We don't recommend this. Very few properties, old or new, have walls and floors that are perfectly square so you will need to set the level for the first row.

Here's how: take a straight length of timber batten (dimensions as above). Using a spirit level, make sure the top of the wooden batten is perfectly level then lightly nail it horizontally along the area to be tiled.

NB. Check for concealed plumbing or electrical wiring before nailing into any walls.

Place your homemade gauge vertically against the wall, its end on the top edge of the fixed wooden batten. Work up the wall making pencil marks as you go, making sure that you won't have to cut lots of fiddly small tiles at the top.

Now use a measure to find the horizontal mid-point of the wall. Put your gauge against this point and work horizontally to determine the location of the last whole tile, and mark the batten. Again, make sure you are not left with small slivers of tiles at each end and if necessary adjust the 'mid-point' slightly to avoid this.

Next hang the plumb line so that the line hangs directly over the batten mark. Alternatively, you can use a laser level, a long set-square or an upright spirit level to produce a vertical line. Once you have the precise starting point for your first tile you can begin tiling.

If you are placing a patterned border to run around a room, you need to choose one centre point on one wall, and align all the borders to that one point.

Cutting and drilling ceramic tiles

Cutting ceramic tiles with a scribe and snap machine

Recommended scribe and snap tile cutters are Rubi TS-40, TS-60, with a suitable carbide scoring wheel 6mm / 1/4", 8mm / 5/16" or 18mm / 11/16".

Wet water cutting disc machines for cutting porcelain and ceramic tiles

Tiles should be cut with diamond coated water cooled discs mounted on manual electric grinders or on a cutting station. For precision cuts use a water jet cutting facility. Search online for your nearest facility.

Adhesives

Ceramic wall tiles are suitable for fixing with cement based modified adhesives (C2) and grouts (CG2). There are many different reputable adhesive and grout suppliers.

For wet area installation it is advisable to use a CG2 grout with a reduced water absorption (type CG2 WA).

For tiling onto wooden substrates adhesive such as Mapei Keraquick with Latex Plus (C2 FT S2). This will allow for expansion and contraction movements and will stop tiles and grout from cracking. However, some changes of plane will require expansion joints.

Gypsum pink plaster walls and gypsum anhydrite screeds MUST be primed prior to tiling. Mapei Primer G or Ardex P51 are suitable.

Adhesive is available as standard set or rapid set. Standard set takes up to 24 hours to go off, whereas rapid set can take up to two hours depending on the thickness, temperature and humidity conditions. All tiles should have a 2mm / 1/16" layer of adhesive spread onto the backs before laying, in addition to the adhesive spread on the floor/wall. This method is known as the solid bed fixing method. It is essential for large porcelain and ceramic tiles.

For power showers, saunas and steam rooms we recommend epoxy grouts as the conditions are harsh. Epoxy grout and adhesive can be difficult to use and because of the nature of epoxy, can be extremely hard to remove once cured. For this reason, we recommend keeping lots of clean hot water and a supply of clean sponges at hand to remove excess epoxy quickly and safely.

Applying the adhesive

Acrylic-prime the surface to be tiled and leave to dry. Spread the adhesive over as much of the wall as you can work on, within about 15 minutes; approximately one square metre / one square yard is usually about right.

Spread the adhesive as a solid, even layer (rather than using spots of adhesive). Use a notched trowel to form parallel lines. The thickness should be approximately 6mm / 1/4" for 152mm / 6" ceramic tiles, 8mm / 1 5/8" for large format wall tile and 8-10mm / 1 5/8" - 3/8" for floors.

If you are installing thick/large tiles, spread a 2mm layer of adhesive on the back of the tiles as well as the surface of the substrate, making sure to always spread the adhesive over the entire back surface of the tile rather than spotting it on, otherwise the tiles may break after installation.

Place the first whole tile on the adhesive, press it down firmly.

Check the first tile is straight and level. Now lay the adjacent tiles in the same way, using spacers (see Using spacers section below) to create an even joint between them.

Using spacers

If spacers are used by inserting them horizontally on walls (i.e. they stick out at right angles to the tiled surface) they need to be removed from the joints as soon as the adhesive setting time is achieved.

When you get to the edge of the room, cut the tile to fit the gap. Where floor and wall tiles meet, a neater finish will be achieved if the wall tiles sit over the floor tiles.

Leave a gap between the edge of the floor tile and the wall to allow for expansion and fill with acetoxycure silicone for ceramic/porcelain (high modulus silicone for floors and low modulus silicone for walls).

Be careful to keep adhesive off the face of the tiles – wipe away any surplus with a clean, damp sponge as you go.

Work to the lines you have marked on the walls for centre points and level lines and then begin applying the tiles.

Where there is any chance of movement from the substrate it is important to use a flexible adhesive. This will allow for small contraction and expansion difference between the tiles and the substrate and will stop tiles and grout from cracking. However, some changes of plane will require expansion joints. Always seek professional advice.

When you get to the edge of the room, you can either cut the tiles to fit the gap (if necessary) or leave it until the end of the job, but you must clean away the excess adhesive before it dries from the open spaces for easier installation.

When you have covered the first square metre prepare another area, and so on. If there are any untiled areas around the edges of the wall you will need to cut the tiles to fit.

Levelling clips for large format tiles

Due to the firing process, all ceramic tiles may exhibit a small amount of bowing or warping. The effect is more noticeable on larger format tiles due to the increased surface area. For the installation of tiles that are 600mm or larger, we recommend the use of a Levelling clip system. This will help reduce lipping at grout joints and assist in achieving the most level result.

Levelling clips can also be used to compensate when different thicknesses of tiles are used together in one installation.

Grouts

Grouting gives a neat appearance to the tiled surface, it stops dirt or grease building up between the tiles. Grouting should always be finished flush with the tiled surface.

Allow the adhesive to dry out for a minimum of 24 hours before grouting. Thick layers of adhesive, cool temperatures and other factors can prolong drying.

For Lustre effect tiles 'Radiance' and 'Afterglow' a Superfine or un-sanded grout is recommended to avoid scratching the surface. Apply the grout into the joints neatly avoiding the body of the tile. We strongly advise not to slurry grout the tiles.

How to grout tiles

Always try a small amount before grouting your entire tiled area to check you are happy with the look of the grouted tiles before grouting the complete area. Clean the surface where you are going to tile and allow it to dry before proceeding.

If the tile is a polished or semi polished type impregnate the clean dry tiles prior to grouting and after grouting following cleaning and drying.

Regardless of the grout colour chosen it is advised that you test a tile prior to grouting to ensure the grout pigment will not contaminate the surface of the tile.

Mapei UltraColor grouts are suitable. There are many suitable alternative suppliers.

Useful Tip

Always aim to complete whole sections of grouting in one session to ensure an even finish with no colour variation. Wash down with clean water and a sponge every square metre to avoid any excess grout drying on the surface.

Never grout corners of rooms. These must be grout-free and filled with a suitable silicone to allow for wall expansion.

It is very important to mix the grout following the manufacturers' instructions. Once mixed, let the grout stand for two minutes, then apply to the wall using a squeegee working in a diagonal motion across the tiles.

We recommend you cover about one metre at a time and leave for five minutes before removing any excess grout with a squeegee. Wait another five minutes before wiping the tiled surface with a clean sponge. Always check that there are no lines left in the grout.

Repeat until the whole wall is complete.

Once the whole work is completed, leave for two hours, wash down all the tiles with clean water and sponge, and correct any faults. If a grout haze remains use a mildly acidic cleaner to remove. LTP Grout Stain Remover, Lithofin KF Cement Residue Remover and FILA Deterdek are suitable.

Important Note

If using Mapei Ultra Colour Plus grout, it must be mixed with an electric mixer using 1-1.1 litres of water per 5kg bag (4¼ cups per 11 lb) of Ultra Colour Plus. Pour all the water in to the bucket and then add all the grout and mix on a slow setting. Leave to stand for two minutes and remix. Do not add more water. If the material begins to harden after 15-20 minutes, remix with just the paddle but do not add any more water. The grout has a pot life of one hour.

Finishing off

Once your tiling is complete, inspect it carefully for any joints that the grout has missed, and refill if necessary. Wipe over the entire wall with a damp sponge or cloth and allow it to dry out completely. We also recommend sealing grout seven days after installation with a grout protective sealer, which can be purchased through any reputable tile outlet.

Always test a small inconspicuous area before proceeding. Always follow manufacturers' instructions. Use the utmost care when grouting to preserve the beauty of your tiles.

Movement Joints

Where tiles meet another surface, the joint is filled with silicone sealant, not grout, to allow for minor expansion and contraction. Movement joints should be placed according to any architect's specifications, over existing joints and any changes in plane. Movement joints eliminate stress transferring from the substrate.

Internal: Please refer to BS5385-1 2018.

Cleaning

The Radiance and Afterglow ranges in the Living Collection are produced using a precious, delicate printing material that creates the magical 'Lustre' effect. These tiles need to be treated with care to maintain their beautiful finish. They are very sensitive to all cleaning products, so please only use water and a soft cloth when cleaning them and always wash down or rinse down the tiles after use if they are in a wet area.

Steam Cleaning

We do not recommend steam cleaners or steam mops to clean our tiles. Steam cleaning may remove or render ineffective any sealer that has been applied, leaving the tiles unprotected.

Photography

Owing to variations in studio lighting and printing inks, the tile colours shown in our brochures may differ slightly from those of the actual tiles. It is always advisable to ask your Original Style supplier to show you a sample.

Limits of liability

Original Style accepts no liability for the faulty installation of its tiles. In the case of any claim relating to the tiles themselves, Original Style's liability, to the extent permitted by law, is limited to either the replacement of the product or a refund of the cost of the product and does not extend to cover any consequential loss. Tiles must be inspected prior to installation and claims cannot be considered after the tiles have been installed. Claims must be reported within seven working days from the receipt of the tiles. Tile sizes may vary slightly from the stated nominal dimensions within internationally accepted standards.

Please be advised that installation constitutes acceptance of the quality, colour, size, texture and shade of the tiles. Please note, the use of certain acid-based cleaning products may cause some of the tiles to react and change in character. Original Style warrants that its tiles conform to their description and are fit for their purpose. Original Style makes no other express or implied warranty as to fitness or suitability of the products for particular installations. We extend no guarantees, express or implied, as to wear resistance or maintenance procedures.

It is imperative to follow all manufacturers' instructions regarding their suitability with our products. If in doubt please consult your grout/adhesive/sealant stockist from whom you purchased the products. Original Style makes no representations as to the fitness for purpose of third party products.

In the USA please follow the recommendations of reputable product manufacturers in conjunction with this Fixing Guide, and always comply with American National Standards Institution (ANSI) specifications as set out in the Handbook for Ceramic Tile Installation published by the Tile Council of America.

Useful links: ctioa.org, tileusa.com



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