



Installation & Tile Care Guide

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Installation Guide

SECTION A: PRELIMINARY INFORMATION & RECOMMENDATIONS

Products from Tilephile come in a wide range of types, sizes and finishes, with a design to suit every taste and every space imaginable. This guide can be used help you:

- Choose suitable product(s) for your project
- Calculate how many tiles/ how much material you will be needing
- Prepare and plan for the installation
- Mark out/ Highlight the work area
- Do the installation/ application
- Grout
- Clean, seal and maintain your finished installation

***This guide is suitable for the installation of all our products although you should consult with your professional installer/contractor and also contact us if you require additional information on custom/ special products..**

***This guide is not intended to be a definitive guide for installing tiles. We highly recommend that you go through this guide entirely and consult with a professional tile installer/ contractor. Tilephile will, in no way or under any circumstances, be liable for any installation-related issues and information provided on this guide need to be considered as basic guidelines/ recommendations that may not be applicable in every single tile & stone installation.**

PLEASE NOTE

It is the responsibility of the purchaser of Tilephile products to follow guidelines listed below:

- To store products in adequate, clean, dry and secure space that is free from frost and moisture
- To ensure that installation is done under adequate lighting conditions
- To ensure that the installation work is carefully protected during and after installation

Preliminary Recommendations / Guidelines:

- Prepare all the tools, tiles and materials you need before you start.
- Thoroughly prepare the surfaces to be tiled (time spent on this will save time later).
- Keep the work area clear and clean throughout the entire installation process.
- Work methodically and avoid possible mistakes by allowing sufficient time for each task.

SECTION B: BEFORE YOU START: CHOOSING THE RIGHT TOOLS

These tools will help you complete your tiling project at professional standards. Tools can be purchased or rented and are all widely available at your local home improvement retail stores.

Adhesive Spreader

The notched edge of this tool ensures an even spread of adhesive.

Drawing (China-graph) Pencil

Use this for marking tiles that need cutting work. A "china-graph pencil" 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 may permanently mark your tiles.

Drill

Use a masonry or tile drill bit.

Electric Water-Fed Diamond Wheel Cutter

A diamond wheel cutter is the best way of cutting difficult/complicated tile shapes. These are available local home improvement stores, tile shops, or DIY stores. Follow the manufacturer's guidelines regarding protective goggles, masks and gloves.

WARNING: Electric water-fed diamond wheel cutters should not be used to cut metal mosaics.

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 tools/machinery. Always use personal protective equipment as advised.

Gauging Trowel

For removing the grout from its container, or the vessel used for mixing the grout. Use it to place adhesive onto a trowel.

Glasscutter

This is specifically for cutting glass. Simply mark the outline of your cut, score it with the glasscutter, lay a thin wire under the score and apply even but firm pressure on either side.

Grout Finishing Tool

This tool is run along the grout lines before they set completely to give a consistent, neat finish. This tool is a must to ensure professionally finished grout lines.

WARNING: NOT to be used on Epoxy grout.

Light Mallet

Not an essential tool, but useful for tapping tiles into the adhesive, and leveling up.

Notched Trowel or Adhesive Spreader

The notched edge of these tools ensure an even spread of adhesive.

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. For mosaics, ensure that the spacers you use are the same width as the spaces between the individual tiles on the sheet.

Spirit Level / Laser Level / Plumb Line

One or more of these tools will be necessary to ensure that your tile installation is completed evenly with straight joints/ seams. A plumb line can be made with a small weight/ object, attached on a piece of string.

Sponge

This can be used to remove the grout residue and to smooth the joints. It is always best to use new sponges and grouting tools as old tools may have adhesive residue on them which could scratch/ damage your tiles.

Squeegee (Rubber Trowel)

Used for spreading grouting compound into the spaces between the tiles.

Steel Ruler

A steel ruler is an essential toolbox item, as all successful installations depend on accurate measuring.

WARNING: DO NOT use a steel ruler on stainless steel mosaics.

Tape Measure

For accurately measuring floors, walls and tiles.

Tile Cutter

A must-have machine for making straight cuts.

Tile Gauge

A device for accurately positioning your tiles.

Tile Nippers

A specialist tool for cutting away unwanted sections of tiles.

Wedges

These are wooden or plastic for perfect tile adjustments.

SECTION C: GLOSSARY OF INSTALLATION/ TILING TERMS

Adhesive

The glue used to attach/ fix tiles to the substrate. A wide range of adhesive products are available, so always ask your installer/ contractor for advice on your particular project and type of tiles being used.

Grout

A hardening compound used to seal the joints between tiles. A wide range of grout products are available in the market, always consult with your installer/ contractor for advice on your particular project and type of tiles being used.

Movement / Transitional Joint

Where tiles meet another surface, such as a shower tray, the joint is filled with silicone sealant, not grout, to allow for minor expansion and contraction. Movement/ transitional joints eliminate stress transferring from the substrate.

Pointing

Pointing is the process 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 usually made up of sand/ cement in the ratio of 4: 1 .

Silicone Sealant

A material with elastic and waterproofing properties used to fill movement joints instead of grout.

Slurry Grouting

Where the grout mix is runnier than normal and is spread across a large area using a spreader. Care is needed to ensure the grout goes right into the joint and no areas are missed out. This method is recommended where a pitted tile (e.g. travertine) has been fitted and the pits or holes need to be filled in for hygiene or cleaning reasons (e.g. on a kitchen floor or backsplash).

Stud Wall

Internal walls in a home, usually constructed of plasterboard over a wooden framework.

Substrate

Any surface onto which tiles are laid.

Thin Set

A layer of adhesive applied to a depth of less than 1/4".

SECTION D: SELECTING YOUR TILES

This is the most important and enjoyable part of the whole process. With a large variety of tiles to choose from, you may want to order some samples to see how they fit in with the rest of your furnishings and decorations.

If you are not certain about the suitability of particular tiles for your specific requirements, please contact our customer support associates for recommendations and information.

Tiles differ in size and thickness and choosing the right size is just as important as choosing the type. Small tiles and mosaics are often better suited to covering small areas, while larger areas usually work better with larger tiles.

SECTION E: SUITABILITY

Here are some guidelines and information on the suitability of our tiles for different projects. Before you plan your installation please contact us for more specific information in regards to the limitations and suitability of our products. You may also consult with your professional tile installer for additional information.

Walls

Most of our products can be used on interior as well as on exterior walls. Please contact us with your specific project needs and obtain extensive information before making a decision.

Floors

Most of our products can be used on interior as well as on exterior floors. Please contact us with your specific project needs and obtain extensive information before making a decision.

Swimming pools

Please note we do not recommend the use of any of our natural stone products, certain mosaics including metals, and some glass tiles, directly within swimming pools where there'll be constant and direct water exposure (in the areas where there's direct water exposure, these products may need special treatments).

In general, in the pool-surrounds and the other nearby areas, there should not be direct limitations in regards to the usage of above mentioned items. Please consult with your professional installer and get expert advice for the installation of products in these areas.

Natural Stone Products

Please remember that stone is a natural product and no two pieces of stone are identical. Natural stone has many possible applications ranging from kitchens and bathrooms to wet rooms, commercial premises and many other installations. It is vital to ensure the suitability of tiles for your particular requirements. Please obtain more information and recommendations from a professional tile installer/ contractor for limitations and suitability of our natural stone products regarding durability, interior/exterior use, floors, showers and hearths. The characteristics of natural stone, slate, marble and terracotta all vary considerably, as does their suitability for different types of installation. (e.g., lighter colored limestones used in a kitchen are more likely to show marks and wear than darker limestones.)

Natural Imperfections

Due to the natural origins of these products some of our tiles may have minor chips or blemishes. Relatively insignificant imperfections should be considered normal and not the result of poor workmanship. This factor is more apparent in some materials and finishes than others and your choice of tiles should take this into account. Porous and unfilled tiles are clearly less suitable than polished ones for surfaces that need to be kept spotlessly clean. Minor damage such as chipping can sometimes be caused in packing and shipping. This is normal and we recommend that if you do receive any chipped tiles, or if there are any unwanted blemishes, you use them for the cuts during the installation process.

Basalt

Basalt is an igneous rock with unmatched durability that is suitable for use on floors and walls internally or externally and in heavy traffic areas. As a result of the way the rock is formed, it is common for basalt tiles to have small voids in the surface. It is vital that this feature is taken into account when choosing basalt. This is a natural phenomena and not a fault. Caution must be taken during installation as any adhesive allowed on the surface of basalt tiles will lodge in these surface voids, detracting from the natural beauty of the stone. We recommend that the surface is cleaned, grouted with black grout and sealed prior to installation.

WARNING: We only recommend black grout for basalt installations.

Travertine

It is important to be aware that, as travertine is a natural product, gas voids or pinholes can sometimes appear on the surface of the tiles after installation. No guarantees can be given against these types of occurrences. Any voids that do appear can be filled using grout or epoxy resin. It is extremely important that this feature is taken into account when choosing travertine.

Glass Tiles

All our glass tiles must be kept away from any direct heat source at a minimum of 1 1/4". This will include any hot water pipe work concealed within walls and any radiant heat sources such as hobs, heated towel rails or radiators. **We DO NOT recommend** installing glass tiles directly onto wood or as counter tops. As with all glass products, glass tiles can be scratched. We recommend that utmost care is taken in during installation and that glass tiles are not put in high-risk areas for scratching. Avoid sharp objects coming into direct contact with your glass tiles and never use any kind of abrasive products to clean your glass tiles. Water is normally all that is necessary or, if your tiles have become grimy, use a proprietary glass or window cleaner.

SECTION F: SHADE VARIATION

Shade variation may be an inherent feature of some of our ceramic and porcelain tiles, while tiles and mosaics made from natural stone materials are prone to shade variations. We recommend that your tiles/mosaics are loosely laid out and "blended" prior to the installation to achieve the most pleasing distribution of shades. Differences between batches can be more apparent, so for this reason we recommend that you buy all the tiles at one time. We cannot be liable for shading issues after installation.

Some tiles, such as, our travertine tiles, may be delivered damp. This is due to the manufacturing process and tiles need to be allowed to dry completely before installation. Moisture content may affect their shading as wet tiles may appear much darker than dry tiles.

SECTION G: HOW MUCH MATERIAL/ HOW MANY TILES TO ORDER?

Once you have decided on a type and size of tile, calculate how many you will need by measuring the area to be tiled. It is always recommended to get extensive help/advice from your professional tile installer for figuring out the amount of tile(s) you will need in your project. Additionally, to calculate the number of tiles, first make a decision on which size you want to use. If you have any problems calculating the number of tiles required please do not hesitate to email/ call us.

Calculating the tiles is the easy part. Simply measure the height of your room or the height you will require the tiling to end and multiply by the width. On the floor, measure the length and multiply by the width. 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 floor or 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. Otherwise, the easiest method is to make a scale drawing of the floor and walls on a piece of graph paper, draw the outline of each tile (including liners, trims and borders where appropriate) and add them up. We recommend that you allow for cuts and waste by adding at least 5% to the total for mosaics and 10% for larger field tiles. It might be a mistake 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. There is nothing worse than getting near the end of the job only to find that you are short of one or two tiles, especially as colors/ shades can vary between different batches.

SECTION H: PREPARING FOR INSTALLATION

The secret to a perfectly laid wall or floor 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 Tilephile tiles and any installation materials such as grouts and adhesives in a cool and dry storage area. All tiles must be dry before installation and Tilephile cannot guarantee that any products will be delivered completely dry (see note about Damp tiles, further below in this section).

Important Notes

- 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. Please remember that almost all of our tiles are completely inflexible. With this in mind, it is important to ensure the installation surface/ substrate will not move in any way otherwise cracking will occur. If there is movement in the installation surface/ substrate, we strongly advise that you seek professional advice before proceeding any further.
- ALL floors must be primed prior to installation.
- Sand and cement floors must be completely dry. Allow seven days to cure then another 14 days to dry. Please be aware that certain installations may require a longer drying time, due to thickness of the cement/ concrete, humidity within the room and weather conditions. Use a hygrometer to test for moisture.

- Old stone, or quarry tiles are best removed. If this is impossible or impractical, and they are completely sound, they should be thoroughly cleaned of any contaminants i.e. dirt, grease, oil, waxes etc. Vinyl tiles should always be removed. If tiled over, they can sweat and cause "debonding" of the adhesive.
- Do not lay tiles directly onto a bed of wet sand and cement. This may give rise to efflorescence on the surface of some tiles. Efflorescence (which is a natural chemical reaction) is the name for a whitish bloom that can appear if there is moisture within the tile.

Sub-floor Heating

Sub-floor heating is an excellent and extremely efficient way of heating, either as the sole source of heat in a room or as a backup to an existing heating system. There are usually two types: electric and piped water. The electric method is extremely simple to install.

A length of wire and rolled out mat is laid out on the substrate prior to tiles being fixed.

A wall mounted thermostat enables complete control over the temperature. Most of our natural stone, ceramic and porcelain tiles can be used effectively with sub-floor heating systems (provided expansion joints are incorporated). These absorb thermal expansion and contraction between the tiles and adjoining surfaces. Electric sub-floor heating will heighten the floor by approximately 1/4", so this should be planned into your installation. As always, the sub-floor heating manufacturers' guidelines must be followed. Also, when installing sub-floor heating, please note that the adhesive and grout manufacturers' instructions must be followed. It is very important to obtain all information concerning installation, particularly regarding delay times before and after installation, *before the actual work begins*. If the installation is done incorrectly, the tiles may be subject to cracking, due to thermal expansion and contraction, and drying. Sub-floor heating should not be switched on until around 28 days after installation of the tiles, to allow the adhesive to cure fully. On the first day after the 28 day curing period, turn up the heating to 40° F and then raise it by 40° F per day for the next five days.

Walls

All walls should be primed before tiling. Make sure the wall onto which you are installing tiles is able to take the weight of the adhesive and tiles. 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 you have removed all the paint.

Plasterboard walls may be suitable for tiles, depending on their weight and how well the plasterboard is fixed to the stud wall underneath. Plaster is a suitable surface as long as it is dry and in good condition. Remove any loose or crumbling plaster and repair it with new plaster or filler before rubbing down to an even finish. Prime the walls and leave to dry before starting to tile. It is important to check weight restrictions before fixing tiles. Always seek professional advice if you are tiling over plaster. 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.

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: certain mosaics, natural stone, 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 surfaces in any area subject to frequent water (such as around a bath, basin or

shower) carefully to protect them from water absorption. The best surfaces are normally water resistant boards. The underlying surface must be waterproofed first, using a waterproofing kit.

Tanking Systems

We recommend using a tanking system for power showers, shower cubicles, steam rooms and wet rooms in hotels, guest houses, fitness centers 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. We recommend that all waterproofing processes are carried out by a professional.

Damp Tiles

You may have to allow for drying time, as some products (particularly our natural stone tiles) may be damp following storage and transit. The drying time will depend on several factors such as the ambient temperature and humidity plus the size, thickness and substance (raw material) of the tiles. To dry, stand damp tiles on end in a well-ventilated room, or place damp tiles in bright sunlight for at least 24 hours, allowing a flow of air around the tiles. This is best achieved by leaning them against an exterior wall at a 45° angle, while ensuring that the edges in contact with the wall and floor are sufficiently protected against damage. All tiles must be thoroughly dry before installation. Any moisture content may also affect the shading as wet tiles may appear much darker than dry tiles.

Please note that in some cases it will take several days for tiles to dry out completely. We cannot guarantee that products will be delivered completely dry.

SECTION I: PLANNING

It is important to plan the installation of your floor or wall before starting the project. Here are a few of the main areas to think about in the planning stage:

Which adhesive and grout should I use?

There is a range of adhesives and grouts to choose from, some are better suited to certain types of surface than others. Before starting your installation, please read the section on adhesives and grouts.

Using colored grouts with ceramic wall tiles

An inherent feature of our dark colored ceramic wall tiles is a faint lighter line along the outer edge of the tile glaze. This is the case for all glazed ceramics that are not rectified. It is not a fault; it results from the firing process and is known as a surface tension effect. This lighter edge is more visible when dark colored grouts are used. It is important to bear this in mind when considering the overall effect of your installation before you start your project.

Sealing tiles

Some tiles need sealing before installation; again you may have to allow time for sealants to be applied and drying time. Please refer to the section on sealing before starting your installation.

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 problems. Do not use plastic covers as this may induce sweating and discoloration by not allowing the grout and bedding material to dry adequately.

Protecting your Tiles

Before installation, please make sure you store any installation materials and your tiles in their packaging in a clean and dry area. It is particularly important that any paper faced mosaics must be kept thoroughly dry in order to avoid the mosaics separating from the paper sheets before installation.

SECTION J: MARKING OUT THE WORK AREA

Begin by taking a good look at the room. Locate the center of the room by measuring the midpoints of two opposite walls and drawing a line between these points. You may have to adjust the midpoint tile or mosaic sheet to reduce waste as you reach the edges of the room. You can use the midlines as edges or centers of the first row of tiles. After this, lay out the tiles or mosaic sheets loosely, allowing for the joints. The joints will depend on what you are trying to achieve and on your choice of tiles/mosaic.

How wide should the joints be?

- If you have chosen a tile with a straight edge finish (which should be fairly even), tiles can be laid with thinner grout lines
- If you have chosen a rustic style tile, the tile edges can be uneven and to allow for this you will need thicker grout lines
- If you are covering the whole area with mosaics ensure the grout gaps between the sheets are the same as the width between the individual tiles on the sheet
- If you are using mosaics as a border you may have to adjust the grout gaps around the tiles in the middle and around the edge to accommodate the mosaics

Also, if you are using more than one product, check the thickness of the tiles - you may have to adjust levels with extra adhesive to ensure an even and flat surface when the tiling is completed.

The aim is to achieve a pleasing pattern while avoiding unnecessary cutting or thin pieces of tile at the edges of the room. It is desirable to maintain whole tiles in the doorway. If you are tiling through a doorway (i.e. installing tiles in two different rooms), make sure you install a movement joint at the threshold. This will allow for differing surfaces and ambient temperatures between the rooms.

Once you have marked out where the tiles/mosaics are going, begin laying at the center end of the room (i.e. furthest from the door). The first row is the most important; get this straight / even and laying the rest of the tiles will be easy. Get it wrong and it will become progressively more difficult to obtain a pleasing result.

Bathrooms

Baths and shower trays must be perfectly leveled before you start tiling. To ensure a visually pleasing result, use the window as your center point, and place larger cuts rather than smaller ones into the corners, floors and ceilings.

Walls

Mark out the work area. You must always check to see whether the ceiling is leveled 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 leveled / evened. The first row you install is the most important. If this is sloping or uneven, then all the other rows will be uneven too.

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

SECTION K: SEALING

Please note that mosaics made from metal and glass do not require sealing.

Application of penetrating sealers

The correct application of penetrating sealers is important. Follow the manufacturer's application guidelines. The tile surface must be thoroughly clean and free of any material that may prevent the sealer from penetrating. Apply the sealer following the manufacturer's instructions. A lint-free roller should be used. Do not allow the penetrating sealer/ impregnator to dry on the surface. Penetrating sealers have a life expectancy of five years. Please seek advice on this from the sealer manufacturer.

WARNING: Not all adhesives, cleaners, grouts and sealers are equally suitable for all types of tiles. For example, please note that some natural stone tiles contain high levels of iron oxides: for this reason we recommend a solvent based sealer. Please get recommendations/ advice from your sealant supplier.

Sealing Natural Stone Tiles and Mosaics

Natural stone tiles and mosaics should preferably be sealed prior to installation, for both interior and exterior use; although they can be sealed after the installation, depending on various factors. Tiles should be completely clean and dry. Sealing the surface of natural stone tiles protects them from adhesive staining during installation and absorbing moisture and other stains.

When you apply sealer, it must soak into the tile. Prevent excess sealer from spoiling the surface by wiping it away with a clean, dry, lint-free cloth before it can harden. Depending on the type of tile, sealer is applied twice: once before the tiles are installed and again after grouting to cover the grout and the tile (please see the "Sealing after Installation" section).

WARNING: Some natural stone tiles with certain rough finishes (e.g. tumbled travertine tiles) should be sealed with a water-based, color enhancing sealer to bring out the actual/ true colors of the raw material. Please consult with your professional installer for more information.

Pebble Mosaics

Pre-sealing pebbles can make the eventual removal of grout easier and may be carried out before the pebbles are laid or just before grouting. After ensuring the sealer is appropriate, apply in accordance with instructions, then remove any excess and leave to dry. Ensure the sealer used is the same as, or is compatible with your final sealer.

WARNING: Test the sealers on a single pebble first to ensure it gives you the result you want and is compatible. Sealers should not saturate the pebbles as this can dissolve the backing glue.

Sealing Ceramic and Porcelain Tiles

To prevent tiles from staining, all ceramic and porcelain should be sealed with a liquid penetrating sealer prior to installation. Penetrating sealers will fill any exposed pores, making the tiles highly resistant to surface staining; this also makes general maintenance easier. Penetrating sealers do not generally alter the appearance of polished porcelain products since they are designed to only fill the microscopic pores. The slip resistance of the tile will not be affected.

Recommendations

See notes above regarding suitability. Walls and floors need at least one layer of sealer after grouting to seal the grout. Make sure you use only new brushes and new, clean, lint-free white cloths for sealing and keep dirt and dust away from the work area. After the final seal, avoid walking on the floor until the sealer has set thoroughly (follow manufacturer's recommendations). Switch off any sub-floor heating and wait until the floor cools before applying any sealants.

SECTION L: INSTALLING TILES

It is crucial to first mix tiles and mosaics from different boxes so that variations in color are blended together thoroughly to give a pleasing design or pattern.

IMPORTANT: Please note, variations in shade and pattern are an inherent feature of all natural stone products, ceramics and porcelains. Before installation, you should sort the tiles to give a pleasing combination of color and effect. Do not install tiles if an acceptable blend cannot be achieved. We are not responsible for shading or quality once the tiles have been installed.

Adhesives

For surfaces that can expand and contract (i.e. wood or floors with sub-floor heating), it is important to use a flexible adhesive. This will allow for tiny movements and will stop tiles and grout from cracking. However, some changes of plane will require expansion joints. Always seek professional advice. Adhesive is also 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 an approximately 1/16" layer of adhesive spread onto their backs before installation, in addition to the adhesive spread on the floor/wall. This method is known as solid bed.

IMPORTANT NOTE: Epoxy adhesive can be difficult to use and because of the nature of Epoxy, it can be extremely hard to remove once cured. For this reason, we recommend keeping hot water and a supply of clean sponges readily available during installation to remove excess Epoxy quickly and safely. Emulsifying pads should not be used on glass or metal tiles as they may damage or scratch the surface. Always test Epoxy prior to using with our products.

Control Joints

There are numerous reasons for building movement and expansion joints. Divide a larger tiled area into a series of smaller ones with sealant and bond breaker between them. Designers may show points at which joints are needed but these are mandatory where tiles adjoin walls or some other building material and where there is an expansion joint on the surface, among other circumstances.

Which adhesive and grout?

It is extremely important to follow the manufacturers' instructions on the products and, if in doubt, please consult the dealer / retailer you purchased the products from or your installer for more information.

Always follow the manufacturer's directions when mixing and applying installation materials. Take special care to note if a product is suitable for interiors and exteriors as well as walls and floors. A recognized adhesive manufacturer will have a range of products, each appropriate to a specific surface.

Certain adhesives are not appropriate for use in wet situations therefore we strongly advise contacting the adhesive and grout manufacturers for their recommendations. Tilephile makes no representations as to the fitness for purpose of third party adhesives and grouts.

NOTE: Not all adhesives, cleaners, grouts and sealers are equally suitable for all types of tiles. Please get advice from your supplier.

Applying the Adhesive

Spread adhesive over as much of the wall/floor as you can work on, within about 15 minutes; 5-10 sq. ft. at a time. Spread the adhesive as a solid, even layer (rather than using spots of adhesive) Use a notched trowel to form parallel lines. If you are installing thick tiles, spread a 1/16" layer of adhesive on the back of the tiles as well and 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. Our natural stone tiles can be tapped gently into place with a rubber mallet. Check the first tile is straight and leveled. Now lay the adjacent tiles in the same way, using spacers to create an even joint between them. When you get to the edge of the room, cut the tile to fit the gap. Where floor and wall tiles meet, a better looking 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. Be careful to keep adhesive off the face of the tiles - wipe away any surplus with a clean, damp sponge as you go. During installation of all mosaics it is important to ensure that the adhesive is not applied too thickly, as it may permeate into the grout lines. If this then dries, it can be difficult and time consuming to remove.

Work to the lines you have marked on the walls for center points and level lines, then begin applying the tiles. Where there is any chance of movement from the surface, it is important to use a flexible adhesive. This will allow for tiny movements and will stop tiles and grout from cracking. However, some changes of plane will require expansion joints. Always seek professional advice.

Adhesive is also available as standard set or rapid set. Standard set takes up to 24 hours to go off, while rapid set can take up to two hours depending on the thickness and temperature and humidity conditions.

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 for easier installation.

Be careful to keep adhesive off the face of the tiles - wipe away any surplus with a clean, damp sponge as you go. When you have covered the first 10 sq. ft., prepare another area, and so on. If there are any un-tiled areas around the edges of the wall you will need to cut the tiles to fit (please see section on Cutting tiles).

Adhesives and Grouts for Wet Areas

The requirements for adhesives, grouts and sealers differ according to the type of tile used, the background material, and the width of the joints and whether the shower is gravity fed or a power shower, accordingly it is important that you seek advice from your supplier. Although most adhesives and grouts are water resistant in normal situations, they can be further improved using a flexible additive. For power showers we recommend Epoxy grouting. Always seal the grout and tiles after installation, following the manufacturer's instructions.

Adhesives for Natural Stone Products

Cement-based adhesives are recommended for installing stone tiles using the solid bed method (where adhesive is put on both the reverse of the tile and the floor to produce a solid bed). This is particularly important when installing travertine tiles.

Light colored adhesives are strongly recommended for installing paler-colored stone (such as marble and limestone) to avoid staining but also to avoid discoloration through the tile, which can happen due to a chemical reaction between the minerals in the stone and the adhesive.

Dark colored adhesives are fine for dark stone tiles.

All natural stone tiles should have a 1/8" layer of adhesive spread onto the backs before laying, in addition to the adhesive spread on the floor/wall.

Travertine

All voids on the reverse of travertine tiles should be filled with white adhesive. The entire back of the tile should then be 'battered' with adhesive before fixing.

Translucent Stone

For fixing any translucent stone, an SI white flexible cement-based adhesive is recommended.

Limestone

Care must be taken when installing any stone tiles, particularly limestone, on any wood/ timber surface. The surface needs to be strong and rigid with no likelihood of movement, otherwise limestone tiles could suffer damage or cracking.

Pebble Mosaics

We recommend that the tiles are laid dry before fixing, so that variations in color and size are distributed evenly across the installation. Some pebbles may require adjusting slightly so that they interlock with adjoining pebble sheets, the gaps between each pebble sheet should match (as closely as possible) the gaps between individual pebbles. This will ensure that the joints between sheets are not revealed after grouting.

Cement-based water-mix adhesive is generally suitable on masonry substrates where no movement is anticipated. Where slight movement could occur through thermal or pedestrian loads, a modified cement adhesive (probably two-part) should be used as a minimum. It is important that each pebble is embedded in the adhesive. Select a product suitable for the application, use a solid bed trowel and apply no more than about 10 sq. ft. of adhesive at a time, always wiping off the adhesive residue as you work.

Adhesives for Glass Tiles

For plain glass tiles use a white, cement based latex modified adhesive. For the decorative glass tiles use an epoxy class R1 or class R2 adhesive or a silicone based mirror adhesive. When using a mirror adhesive, the adhesive should be applied directly to the back of the tile, not the walled surface. The tile should be then fixed to the wall.

WARNING: Epoxy adhesive can be difficult to use and because of the nature of Epoxy, can be extremely hard to remove once it has gone off. Always remove excess Epoxy adhesive immediately.

It is vital that the adhesive is completely dry before grouting. Any moisture left behind glass tiles can cause the paint backing to deteriorate. Semi-opaque glass tiles need to be fixed with an adhesive that does not shrink and crack as this can be seen when the adhesive dries from the front. Also when installing glass tiles, please be aware that any light refraction from other substrates may be visible through the edges of the tiles. We therefore strongly recommend that any voids (corners for example) are fully filled before tiling to avoid this shadowing effect.

Scratching

As with all glass products, it is possible to inadvertently scratch your glass tiles. We recommend that care is taken during installation. Use masking tape to protect the edges prior to installation. It is always best to purchase new sponges and grouting tools as old tools may have grout residue on them which could scratch your tiles.

Adhesives for Glass Mosaics

For glass mosaics, we recommend using a latex cement-based adhesive with high polymer content as glass is fully vitrified and therefore impervious to water.

Applying Adhesive to Mosaics

All surfaces to be tiled should be primed and allowed to dry thoroughly before tiling. Spread adhesive over as much of the floor or wall as you can work on within 15 minutes - about 5 to 10 sq .ft. is usually about right. Spread an even layer of adhesive (3/4" thin-set) using a notched trowel to form horizontal parallel lines. Place the whole mosaic sheet on the adhesive and press it in firmly. Remove any excess adhesive that wells up between the tiles with a damp sponge. Check the mosaic sheet is straight and level. Use a 12" piece of batten to tamp the mosaics down lightly to achieve a level finish. Most Tilephile mosaics are supplied as sheets on a mesh backing for ease of installations. The mesh side is simply pressed into the adhesive and so does not need removal. However some mosaics have paper or film facings.

Paper-Faced Mosaics

Due to the translucent nature of these tiles, these tiles are paper-faced to avoid the appearance of mesh showing through the glass mosaics once installed. Paper-faced tiles should be adhered in the same way as glass mosaics, however, unlike mesh backed tiles the paper should face outwards. A white latex, cement-based, rapid setting flexible adhesive is recommended. Adhere a small section at a time. Fifteen to twenty minutes after application of the mosaic sheet, use a damp sponge and warm water to lightly wet the paper until it turns dark. Test a corner of the paper by pulling lightly at a downward angle. If the paper does not peel away cleanly sponge again until it peels away easily. Once the paper has been removed, inspect the installation and straighten any joints not aligned. Should you discover any unacceptable tiles, remove and replace them before the adhesive dries. Always remove the paper as you go, do not wait until all the sheets have been fixed before removing it. Repeat the above process until all sheets have been installed.

Plastic Film-Faced Mosaics

Some of our mosaics are faced with a plastic film and should be adhered in the same way as other mosaics, but with the film facing outwards. A white latex, cement-based, rapid setting flexible adhesive is recommended. The adhesive should be left for at least 24 hours to allow the adhesive to completely set and dry before the film is peeled off. If it is necessary to make slight adjustments to straighten the mosaics before the adhesive sets, then the film can be carefully cut with a sharp knife.

Glass Mosaics

Use a thin-set polymer modified latex cement-based adhesive. This must be applied evenly due to the transparent nature of some mosaics. Failure to do this can lead to the adhesive being visible through the mosaics under certain lighting conditions.

CUTTING TILES

It is extremely important that all possible protection is used when utilizing any cutting instruments/ machinery. Always use personal protective equipment such as goggles, a dust mask and gloves. We recommend that all cutting and installation work is done by an experienced, professional installer.

Ceramic Tiles

Ceramic tiles can be easily cut using standard tile cutting equipment and the usual precautions. When cutting individual tiles to fit in small area, please take extreme care and always try to keep each cut no less than 1/2".

Glass Tiles

It is sometimes necessary to cut glass tiles for the perfect installation, and most of our glass tiles can be cut using glasscutters without any problems, as long as the proper procedures are followed.

Although glass tiles cannot be cut or shaped like ceramic tiles, a glasscutter makes it easy to cut tiles with a thickness 1/4". Simply mark the outline of your cut, score it with the glasscutter, lay a thin wire under the score and apply even but firm pressure either side. To avoid light refraction which could be a result of glass tiles being cut, please use a suitable glass cutting electric tile saw with a glass cutting blade, then file away any uneven edges with a suitable glass file.

Porcelain Tiles

These tiles should be cut with diamond blades mounted on manual electric grinders or on a cutting station with water cooled tile saw (thin glass cutting blades are most suitable for this purpose); for precision cuts the usual techniques apply i.e. water jet cutting. Use an electric water-fed diamond blade saw for difficult shapes.

DRILLING TILES

Most of our tiles are very hard products, which need special drill bits. We strongly recommend that you always use a cordless drill. First mark the center of the hole to be drilled into the tile with a china-graph pencil then attach a sticky adhesive drive pad. This drive pad will act as a gauge for a hollow diamond tipped drill bit. It may also have a water attachment to ensure that there is a constant supply of cold water aimed directly at the drill bit, in order to keep the diamond core cool and to help remove any debris that may build up whilst drilling the tile. It is not advisable to try to cool the diamond drill bit by using a hand held aspirator or drilling through a wet sponge. These methods will not keep the drill bits cool enough, and will drastically shorten the life of the drill bit. If you use a self adhesive drive pad, simply start the drill in a vertical position and the sticky pad will ensure that the drill does not slip. Once you have finished drilling the tile, simply peel off the self adhesive drive pad.

SECTION M: CLEANING & MAINTENANCE

Not all cleaners are equally suitable for all types of tiles. Please specifically inquire about the cleaning and maintenance of each tile. However, pH neutral cleaners are suitable for most tiles.

- Please note, the use of certain acid based cleaning products may cause some of our tiles to react and change in character. We recommend the use of pH neutral cleaning products on our tiles unless otherwise stated. It is advisable to test a new cleaning product on a small area before use.
- During the drying out process, soluble salts from within the substrate may appear on the surface of natural stone tiles. This can be removed (once all excess moisture has gone) using water. The presence of efflorescence in an existing building may indicate a structural problem, e.g. a defective damp-proof course or a leaking pipe. Any suspected defect should be identified and repaired before tiling. An over-application of impregnator can sometimes be mistaken for efflorescence. The clouding or 'white haze' of excess impregnator can be removed with an appropriate remover.
- **Acid cleaning agents should never be used on natural stone.** Use a pH neutral cleaner. Sweep or vacuum tiled floors to remove loose dirt and mop occasionally to remove spills and dirt.
- Basalt should be cleaned on a regular basis to prevent any build-up of dirt, grease residue, soap detergents, etc., and to maintain a clean surface and lessen any slippery conditions. First, clean with clear water and/or a soap-free, neutral liquid cleaner. Rinse with clear water then wipe dry to prevent film formation.
- Wash glass tile surfaces with clean water or a pH-neutral glass or window cleaner. Use a soft lint-free cloth to avoid scratching. **Never use vinegar to clean glass tiles as this may affect the grouting.**
- On metal tiles and mosaics, fingerprints / watermarks can be wiped away with a soft cloth or kitchen paper, wipe with a damp cloth then buff dry. pH-neutral cleaners will remove most stains and dirt, or use warm soapy water, wipe with a damp cloth and buff dry. Alternatively use a stainless steel cleaner following the manufacturer's instructions. **Do not use harsh or abrasive cleaning products, scourers and never use bleach.** Do not allow other metals such as steel wool pads to come in contact with stainless steel mosaics, as small metal fragments may enter the surface and start to corrode, resulting in rust spots.
- Appropriate cleaning and maintenance routines are essential for any wall and floor surface to maintain them in good condition & to retain their attractiveness. Floor surfaces in particular require an effective cleaning regime to ensure the risk of slips and trips are eliminated. Each material has specific cleaning and maintenance requirements which should be taken into account to ensure the correct cleaning equipment and products are used.

LIMITS OF LIABILITY

Tilephile accepts no liability for the faulty installation of its tiles. In the case of any claim relating to the tiles themselves, Tilephile'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, color, 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. Tilephile guarantees that its tiles conform to their description and are fit for their purpose. We make 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 retailer from whom you purchased the products. Tilephile makes no representations as to the fitness for purpose of third party products.