

FIRED EARTH

Porcelain & Ceramic Floor Tiling Installation Guide

Glazed and Un-Glazed Porcelain/Ceramic Tiling Installation Guide

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Important Notes

The purpose of this booklet is to outline the basic principles of installing your Fired Earth floor tiles.

For more detailed technical information, refer to British Standard BS 5385 Wall and Floor Tiling.

On receipt of tiles, we recommend they are removed from their packaging and thoroughly inspected prior to installation to ensure the tiles purchased are suitable for the application. Suitability charts are available online or in our brochure. Ensure your tiler is aware of the expected finish of the tiles and there are sufficient tiles for the area. The tiles must be well shuffled by drawing tiles from all the boxes. Dry lay an area in suitable light as a final check before installation.

For further information or if any doubt exists, please telephone your local showroom for advice prior to commencing any tiling.

Fired Earth have tested our range of adhesives, grout and sealants to ensure compatibility with all of our tiles.

We recommend that you treat a spare tile with the appropriate sealer and/or finisher prior to installation to ensure you have achieved your desired appearance.

Read the instructions on the packaging of Adhesives, Grouts and Sealants very carefully. Keep everything meticulously clean and orderly as work progresses.

No complaints regarding the appearance of the product will be accepted by the company once the tiles have been installed.

Website:

www.firedearth.com

All our installation guides are available to download from our website: Wall Tiling, Under Floor Heating, Wood Flooring, Bathroom and Waterproofing Showers and Bathrooms.

Useful Numbers:

UK & Export Sales	0845 366 0400
Delivery Planning	01295 814313
Customer Care	01295 814396
MAPEI	0121 508 6970

Disclaimer:

The specifications and technical information given in this publication are intended for guidance and although they are to the best of our knowledge correct, they are given without warranty.

We cannot accept any responsibility for reliance placed upon the advice contained herein since practical expertise and site conditions are outside of our control. Neither do we accept liability for the performance of the product arising from such use. This does not affect your statutory rights.

Internal Floor Substrates

Surface preparation:

The surface must be properly prepared, suitably level, sound, clean, dry, and free of dust, grease or any loose material. All surfaces must be completely secure without any obvious deflection and capable of carrying the additional load. For specific guidance, please refer to our substrate preparation table on page 10 of this guide. Every effort is made to ensure the guidance included in this booklet is up to date and relevant, however it remains the responsibility of the fixer to ensure the sub floor is suitable for tiling before any installation commences.

Fired Earth recommend the use of Mapei Mapeguard UM 35 as an anti-fracture membrane on floor tile installations.

Concrete / Sand and cement screeds:

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New concrete floors must be allowed to dry for a minimum of 6 weeks. If applying a screed on top allow a minimum of a further 3 weeks. Residual traces of laitance and curing agents should be mechanically removed before tiling commences. Further drying time may be necessary, depending on weather and site conditions.

The reason for this is a new screed may shrink as it dries, and this may result in cracks across the screed. If tiles are fixed before it is dry and cracking does occur it is likely that the cracks will appear across the tiles as well. Any movement or day joints in the screed must be carried through into the tiled surface with the use of an expansion joint.

Anhydrite or fast setting screeds:

The screed must be fully dry in accordance with the manufacturer's recommendations and lightly sanded to remove all traces of laitance/dust. Prime using Mapei Primer G with an undiluted coat.

Bumps and hollows in screeded floors:

Where bumps or hollows exist in the sub floor that exceed the chosen adhesives recommended fixing bed (see adhesive packaging); please level the floor using Mapei Ultraplan Renovation Screed 3240 which is suitable for use up to a depth of 40mm without risk of shrinking or cracking.

Mapei Superflexible S1 adhesive can be used up to a bed depth of 15mm. Mapei Rapid S1 adhesive can be used up to bed depth of 10mm.

Suspended timber floors:

The floor should be rigid, non-flexing and stable enough to bear the additional load. In order to minimise the damaging effect of lateral movement in the floor surface, it is recommended that the floor is prepared using Mapei Mapeguard UM 35. Our Sales Team will be happy to provide our separate information sheet. If the suspended timber floor is subject to vertical movement, the floor must be overlaid with 18mm WBP plywood or suitable tile backer board over the existing timber which should be screwed down at 150mm centres.

Floating insulated floors:

Floating insulated floors (polystyrene with water resistant chip board over) are subject to vertical movement. Please consult your professional installer for further advice.

Vinyl floor tiles:

Thoroughly clean the existing floor with Mapei UltraCare HD cleaner to remove all contaminants such as oil, wax and grease, using an appropriate cleaner. Prime the existing floor with Mapei Eco Prim Grip Plus and allow to dry before tiling.

Cork and Woodblock Floors:

Cork and woodblock floors must be removed, any bitumen or adhesive residues left on the sub-floor should be completely scraped away and all loose material removed. Prime the floor with neat primer G and when dry we recommend levelling the area with Mapei Ultraplan Renovation Screed 3240.

Damp:

Prior to fixing tiles, damp of any nature should be rectified. Consult a specialist if any doubt exists.

Finished Floor Levels

Please be aware the finished level of an existing floor will be raised by the maximum thickness of the tile plus the height of the adhesive bed and any sub floor preparation. Any resultant discrepancy with the levels of adjoining rooms can be minimised with the use of threshold/reducer strips.

Under Floor Heating

The majority of Fired Earth floor tiles can be used over most under floor heating systems. The heating should be correctly commissioned prior to tiling and switched off or lowered to a maximum of 15°C during tiling and for a minimum of 14 days after installation. After 14 days increase the temperature at a rate of 5°C per day to the maximum temperature then reduce by 5°C per day to the required working temperature.

Mapei Mapeguard UM 35 should be used as an anti-fracture membrane over Under Floor Heating; however, the tiles must be larger than 5x5cm in size which includes mosaic tesserae pieces. Our Sales Team will be happy to provide our separate information sheet.

All Mapei cement based S1 adhesives and CG2WA grouts are flexible and suitable for use with under floor heating. An expansion gap should be left around all perimeters, abutments and changes in plane. As a general guide, do not tile continuously over areas with a length of over 5 metres and fit an expansion gap to prevent stress building up in the floor. Always fit expansion joints in doorways of adjoining tiled rooms. Should you require any clarification, please contact your local showroom.

Hearths and Fireplaces

Care should be taken when tiling into hearths or fire surrounds. Ensure that the tiles are kept a minimum of 300mm away from direct contact with the flames or the main heat source.

Planning

Take the time to study the room and plan your work. Tiling usually commences on the side furthest from the door or at the highest point depending on how flat the floor is. If the floor undulates a lot then starting at the highest point will enable you to control the tiled surface flatness. Choose accordingly.

If the floor is considered too uneven, an appropriate levelling compound will need to be laid to achieve a workable surface.

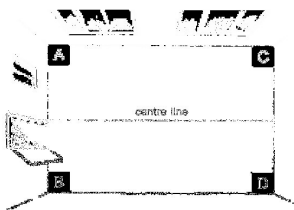
Consider how cuts will look against fixed furniture, through doorways, against fireplaces and staircases etc making adjustments where necessary to achieve the best result.

Please note: Where tiles have variable depths (see our brochure and price list for guidance) the thickest tile should be used for the lowest point in the floor.

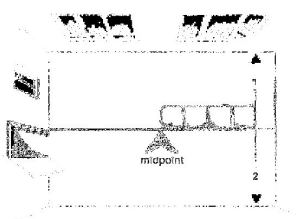
Step 1: Measure from A to B, divide by two and mark the floor at this point. Measure from C to D and again divide by two and mark the floor. Join these two lines together with a straight edge or chalk line to form an approximate central line. From this point lay down tiles, without fixing them, alongside your central line, allowing for grout joints, to see where the last whole tile will end. If the cut is less than $\frac{1}{3}^{\text{rd}}$ of a tile then measure the width of the tile, divide by two to work out what half a tile will be and cast another line parallel to your first one with this measurement. This in practice will mean that your tiles will now straddle your original line in the centre once laid against the new line. Both options should give you even cuts on both sides, but you want the largest cut possible of the two.

Mark your chosen option at the end of the last full tile along the line to give you a starting point.

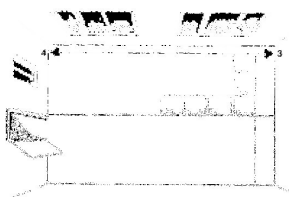
Note: If tiling in a brick bond pattern, then your other option other than centre, is to work from a quarter tile outwards.



Step 2: Measure and divide your central line by two to split it in the middle, mark and repeat the process above to work out your cuts in the opposite direction.



Step 3: Once happy with how the cuts look on all sides of the floor you can decide to lay your first tile on the highest point along the line or off the mark created in Step 1.



Grout joints

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It is important to have a joint between tiles to allow for movement in the structure.

Please refer to the product PIPs and websites for recommended grout joints.

When fitting random sized tiles an area should be 'dry laid' first to establish the optimum joint width. Joint sizes may vary from 3mm-10mm across the floor depending on the mixture of tile sizes used and the chosen pattern.

Installing Glazed and Un-Glazed Porcelain/Ceramic Tiles

IMPORTANT NOTE: After the tiles are installed into the adhesive all moisture must be released from the body and the surface of the tile prior to grouting. The level of moisture can depend on many factors, depth of substrates and their drying times and the depth and moisture content of the tiles and adhesives. Be led by your professional installer on correct drying times. We strongly recommend allowing a minimum of 7 days.

Some of the tiles may have strips or spots of wax on the surface to cushion them during transit. This can usually be removed with soap and water however in the case of heavy deposits please use Mapei UltraCare HD Cleaner.

Preparation:

Please check your substrates suitability for tiling before proceeding, see pages 4 - 5.

Damp tiles should be stored on end in a well-ventilated area to dry thoroughly before fixing.

It is important to establish which way the tiles are to be laid before any tiling is started. Make sure the person fitting the tiles knows what the tiles should look like. 'Shuffle' the batch to ensure that any colour and tonal variations are well mixed. Minor chips and blemishes should be expected and are best used for cuts or well mixed into the floor.

It is essential to wear suitable protective eyewear and clothing when cutting or drilling tiles.

Pre-cleaning:

We do not recommend pre-cleaning porcelain tiles before installation however brush off any loose grit or dust.

Fixing the Tiles:

Before commencing tiling, please ensure you are familiar with the important notes on page 3.

All Mapei S1 Tile adhesives are cement based, flexible and designed for fixing our full range of tiles. They are water resistant and suitable for both internal and external applications. We recommend using white standard set or fast-set with lighter coloured tiles and grey with the darker coloured tiles. Some of the tiles vary in depth; where this is applicable, it is important to grade the tiles before installation. Be certain that the tiles are suitable for the application and that you have purchased the most appropriate adhesive. Bowed tiles may also require back buttering in order to achieve a solid bed of adhesive.

Carefully follow the mixing recommendations supplied on the reverse of the adhesive product.

Application of the adhesive:

Spread the adhesive using a suitable notched trowel. The adhesive should be applied to the floor in straight parallel lines. Spread only enough adhesive that remains workable.

Where necessary butter the back of the tile with adhesive and place the tile in the starting position as described in the Planning Steps 1 to 3.

Push the tile home firmly with a slight twisting movement. Place the next tile adjacent to the first, allowing for the grout joint, and so on over the prepared area. All tiles must be installed into a full bed of adhesive, do not 'spot bed' any tiles.

All the tiles should be soundly bedded in the adhesive without any space for air underneath. Be careful not to allow any adhesive onto the surface of the tiles. Any surplus should be wiped away with a clean damp sponge. Keep the joints between the tiles free of adhesive and wipe away any excess from the un-tiled area. Once an area has been tiled the adjacent area can be prepared and so on until you have completed the floor. Once the adhesive is dry the remaining perimeter area can be prepared and cut tiles laid. If you prefer, cuts can be fitted as the work progresses. Check the floor level as work progresses with a spirit level and a straight edge.

Cutting the Tiles:

Porcelain tiles require high quality diamond tipped blades for cutting; if hiring cutting equipment please ensure you advise the hire company that you intend to cut porcelain tiles so they can supply you with the most appropriate blades.

Drilling holes can be a difficult task without the correct equipment. Fired Earth recommends the use of the ARMEG® range of porcelain drill bits and core drills.

Whilst cutting or drilling tiles, the surface of the tile may become wet and/or dirty. Wipe the tile clean immediately after cutting. Rough edges and chips should be smoothed and finished with a sanding block or tile file.

Pre sealing the Tiles:

Despite these tiles being very dense, robust and hard wearing it is a sensible pre-caution to **seal un-glazed porcelain tiles** particularly in kitchens, bathrooms and high traffic areas.

It is important for the correct products to be used when sealing, finishing and maintaining your tiles. The products we have selected have been specifically chosen to enhance, protect and maintain your tiles. You should expect the sealing process to darken both the tiles and grout.

Please be aware that any deviation from our recommendations could affect the appearance, capabilities and longevity of your tiling.

Preparation: Pre Sealing

Please note glazed porcelain/ceramic tiles do not require sealing.

Prior to pre sealing unglazed porcelain tiles, the adhesive bed should be dry and cured and the grout joints clean, dry and free from adhesive residues, dirt, dust and other loose debris. The process of pre sealing should be kept meticulously clean and all materials including brushes and cloths etc should be new and unused.

The drying times recommended below may be altered by the actual site conditions (heat, humidity, ventilation etc). Please refer to the manufacturers' guidelines on drying times for each product – **be led by your professional installer.**

Fired Earth recommends pre sealing **un-glazed porcelain** with Mapei UltraCare Grout Release.

Application of the Sealant:

- Check the tiles are completely dry.
- Shake the bottle of MAPEI UltraCare Grout Release well before and during use.
- Test the Grout Release on a single tile in an inconspicuous area or on a separate tile to ensure you are confident with the application. If not contact Fired Earth or MAPEI Technical for advice.
- Work to the grout lines in small controllable sections i.e. 1-2m² at a time
- Apply one coat, ensuring full coverage to the face and edges of the tile (to ensure no bleeding from the grout). Using a suitable applicator, generously but evenly apply the Mapei UltraCare Grout Release, avoiding the build-up of excess product and spread it using a fleece applicator or microfibre cloth. Remove any excess product by brushing the surface with a sponge or cloth.
- Allow the product to dry for 4-8 hours.

Ensure that the sealer is left a minimum of 4 - 8 hours before grouting commences.

Grouting the Tiles:

All Mapei cement based grout is flexible therefore suitable for all tiling projects provided the tiled area has been correctly prepared. Lighter coloured tiles can be affected by dark coloured grouts bleeding into the tiles resulting in dark patches around tile edge or possibly over tile face if slurry grouted which may permanently stain the tile. If you are using a mixture of dark and light tiles, we would recommend using lighter colours.

Preparation:

It is advisable to grout and clean a small test area prior to grouting the whole floor. This will give you the opportunity to check that all surplus grout can be removed without staining the tiles. If any doubt exists, please call your local showroom for advice.

Carefully follow the mixing recommendations supplied on the reverse of the grout product.

Application of the grout:

Grouting is the careful application of grout between the tiles.

Ensure that the correct tools used for grouting are completely clean and free of any hardened grout etc.

To avoid contaminating the surface of the tile, use a damp sponge to wipe off any excess. Take care to fully compress the grout into the full depth of the grout joints so that no air pockets exist, and the joints are fully filled.

Work in manageable areas and clean off any residues when the grout has begun to firm up in the joints, but before it sets on the tile face. Cleaning with a damp but not overly wet fine textured foam sponge will provide the best results. Do not over wash the grout as this may cause a white bloom (efflorescence) and discolour the grout. Ensure your grouting is completed in one application. Change the cleaning water regularly. Ensure ALL grout residue is removed from the surface of the tiles.

Leave the perimeter joints, these must be finished with a good quality silicone sealer after the final seal and not with grout. This will allow for expansion and contraction in the tiles during normal heating and cooling cycles.

If a slight grout residue has been left to dry on the surface of the tiles, use Mapei UltraCare Keranet diluted 1:10 to remove. Test the diluted product on one tile, apply the product on the tile for 5 minutes and use a white emulsifying pad to remove grout residue. Rinse completely and dry the tile. If this is unsuccessful, please contact either Fired Earth or Mapei Technical for further advice. NOTE: if the area has had excessive cleaning ensure that the tiles and grout joints are entirely dry before proceeding with the finishing process – be led by your professional installer.

Should efflorescence form, these salts can be removed by frequent washing with clean water or Mapei UltraCare Keranet diluted 1:10, once the grout has been allowed to fully cure for a minimum of 28 days.

If this is unsuccessful, please contact either Fired Earth or MAPEI Technical for further advice.

IMPORTANT NOTE; Be led by your professional installer on correct drying times.

Cleaning after grouting – initial clean:

After grouting, the tiles should be cleaned to remove all grout and installation residues. This will ensure that the tiles can be easily cleaned and maintained going forward.

Mapei Keranet Easy significantly reduces the waiting time to undertake the initial clean. Mapei Keranet Easy can be used as soon as the grout becomes opaque. Spray the Mapei Keranet Easy onto the surface and allow 1 – 2 minutes contact time. Wipe over with a damp sponge and then buff over the surface of the tile.

Mapei Keranet can also be used to undertake the initial clean. The grout should be allowed to fully cure for 7 to 14 days depending upon whether using a rapid or standard setting grout. Dilute Mapei Keranet 1:5 – 1:10 depending upon the level of contamination on the tile surface. Apply and leave for 5 minutes. Work over the surface with a white emulsifying pad. Remove the solution and then rinse thoroughly with plenty of clean water.

Further Sealing of the Tiles:

For glazed and unglazed porcelain and ceramic tiles, once installed, we recommend the grout joints are protected using Mapei UltraCare Grout Protector. Apply the Mapei UltraCare Grout Protector three days after grouting for optimum performance and protection. Spray the Mapei UltraCare Grout Protector over the grout joints, ensuring that the grout is completely saturated with the Mapei UltraCare Grout Protector. Remove any over application from the tile surface before it dries, using a clean dry cloth.

Finishing the Tiles:

No finishing product is required for un-glazed porcelain tiles.

Cleaning and Maintenance:

Sweep or vacuum the floor regularly to remove all dirt. Our recommended cleaning products have been formulated to both clean and be gentle on the sealants. General household cleaners may be too aggressive and are likely to damage the sealants and finishes applied.

Mapei UltraCare Multicleaner should be used for day to day cleaning. Dilute 50ml in 10 litres of water.

External Installation of Porcelain Tiles:

Disclaimer:

The technical information given is intended for guidance and although they are to the best of our knowledge correct, they are given without warranty.

We cannot accept any responsibility for reliance placed upon the advice contained herein since practical expertise and site conditions are outside of our control. Neither do we accept liability for the performance of the product arising from such use. This does not affect your statutory rights. A suitably qualified / experienced installer should undertake all works.

Important Notes:

The purpose of this section of the guide is to outline the basic principles of installing your Fired Earth Porcelain tiles externally. Ensure that only tiles deemed suitable for external installation are used.

On receipt of the tiles, we recommend they are removed from their packaging and thoroughly inspected prior to installation to ensure the tiles purchased are suitable for the application.

Ensure your tiler is aware of the expected finish of the tiles and there are sufficient tiles for the area. The tiles must be well shuffled by drawing tiles from all the boxes. Dry lay an area in suitable light as a final check before installation.

Tiles laid externally will age and weather in a different manner to an internal installation. UV light, acid rain and the natural weathering from the climate may change the appearance of the tiles over time.

Read the instructions on the packaging of Adhesives, Grouts and Sealants very carefully. Keep everything meticulously clean and orderly as work progresses.

No complaints regarding the appearance of the product will be accepted by the company once the tiles have been installed.

Installation:

There are a number of ways in which porcelain tiles can be installed externally, the success and longevity of each method will depend on site conditions, maintenance and how the area is to be used.

The following is guidance on two suggested methods of installation:

For Porcelain Tiles with a thickness of less than 20mm:

These tiles should be installed on to a fully prepared, fully dry and cured concrete slab. The surface of the concrete slab should be laid to correct falls so as to prevent water pooling, be clean, dry and free of dust, grease or any loose material. Please ensure the finished level of the tiles and slab will not interfere with the damp proofing requirements of adjoining properties – be led by your professional installer here. The surface of the concrete slab should be free from any standing water prior to the installation of tile. The required thickness and construction of the concrete slab should be determined by the installer to suit specific site conditions. Once the concrete slab is fully prepared, fix the tiles in place using a cementitious, powder based, flexible adhesive and ensuring that all tiles are fully bedded into adhesive, do not 'spot bed'. Select both adhesives and grouts that are appropriate to the performance required. All Mapei S1 adhesives and CG2WA grouts are suitable for use externally. Please note if a dark grout is chosen for use with a light coloured tile, then the grout colour may 'bleed' into the edge of the tile. We would strongly recommend using a grout colour which is very similar in colour to the tile. Always test the chosen grout in a

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small area before grouting the whole area using the 'pointing' method. 'Slurry' grouting may lead to staining of the tile surface. Consideration could be given to the use of Mapei Mapeguard UM 35.

Be led by your professional installer on installation details, drying times and any relevant building regulations.

Mapei UltraCare Grout Release can be applied prior to grouting to make the removal of cementitious grout easier.

Application of the Sealant:

- Check the tiles are completely dry.
- Shake the bottle of Mapei UltraCare Grout Release well before and during use.
- Test the Mapei UltraCare Grout Release on a single tile in an inconspicuous area or on a separate tile to ensure you are confident with the application. If not contact Fired Earth or M Technical for advice.
- Work to the grout lines in small controllable sections i.e. 1-2m² at a time.
- Apply one coat, ensuring full coverage to the face and edges of the tile (to ensure no bleeding from the grout). Allow the product to dry for 4-8 hours.

Ensure that the sealer is left a minimum of 4 - 8 hours before grouting commences.

Cleaning after grouting – initial clean:

Mapei UltraCare Keranet Easy significantly reduces the waiting time to undertake the initial clean when using a cementitious grout. Mapei UltraCare Keranet Easy can be used as soon as the grout becomes opaque. Spray the Mapei UltraCare Keranet Easy onto the surface and allow 1 – 2 minutes contact time. Wipe over with a damp sponge and then buff over the surface of the tile.

Mapei UltraCare Keranet can also be used to undertake the initial clean. The grout should be allowed to fully cure for 7 to 14 days depending upon whether using a rapid or standard setting grout. Dilute Mapei UltraCare Keranet 1:5 – 1:10 depending upon the level of contamination on the tile surface. Apply and leave for 5 minutes. Work over the surface with a white emulsifying pad. Remove the solution and then rinse thoroughly with plenty of clean water.

For Porcelain Tiles with a thickness of Greater than 20mm:

For tiles with a thickness greater than 20mm an alternative method of installation is to install in the same way as a paving slab. After removing surface vegetation and topsoil to the required depth, a compacted and stable subbase of a suitable granular material should be constructed. The surface of the subbase should be laid to correct falls so as to prevent water pooling.

Please ensure the finished level of the tiles and slab will not interfere with the damp proofing requirements of adjoining properties – **be led by you professional installer**. On completion of the subbase, the porcelain tiles should be fully bedded on to Mapei Mapepave Mortar using Mapei Mapepave Slurry.

With the mortar layer fully dry, the joints between the individual tiles can be filled with Mapei Ultracolor Plus or Mapepave Brush In Grout.

If a brush in resin grout has been used, Mapei UltraCare HD Cleaner can be used if any resin residues remain. Dilute Mapei UltraCare HD Cleaner 1:10 in water and apply to the surface. Leave for 5 minutes and then work over with a long handled stiff brush. Rinse with plenty of clean water.

Cleaning and Maintenance:

All flooring benefits from a simple maintenance and cleaning programme. North facing applications will require more regular cleaning. We would recommend regular sweeping of the tiles to remove most of the usual garden debris which may settle on the surface. General cleaning with Mapei UltraCare Multicleaner should remove general surface stains. Don't be tempted to scrub tiles with steel wool or wire brushes as this may leave marks on the surface of your stone.

Jet washers can be used to clean the tiles; however care should be taken to ensure that the jointing between the tiles is not damaged.

Natural markings from trees and leaves and black spot can be removed by using Mapei UltraCare HD Cleaner. In the instances of more difficult stains, we would recommend seeking professional advice from Mapei Technical.

Substrate Preparation Guide

Substrate	Sand and Cement Screed / Concrete	Timber Floorboards		Timber Floating Floors		Quarry, Clay, Natural Stone	Glazed Tiles	Vinyl Tiles, Flooring Grade Asphalt	Underfloor Heating	Anhydrite Screed
		Tongue and Groove	Butt Jointed	Plywood Installation	Flooring Grade Chipboard Installation					
Watch Points	New concrete should be allowed to dry for at least 6 weeks and Cement: sand screeds at least 3 weeks	Must be screwed down to joists and noggings and be free from deflection	Overlay with WBP plywood, minimum 18mm. Countersink screws at 150mm centres	Overlay with minimum 18mm thick WBP plywood	Overlay with flooring grade chipboard (in dry areas only) prior to installing Mapei Mapeguard UM 35.	Existing tiles must be well fixed; any hollow spots should be made good and filled.	Existing tiles must be well fixed; any hollow spots should be made good and filled.	Any loose vinyl tiles should be removed together with their adhesive residues.	Fit in accordance with manufacturers instructions. Specifications may vary according to substrates	The screed must be fully dry in accordance with the manufacturer's recommendations and lightly sanded to remove all traces of laitance/dust
Preparation	If dusty or porous, seal with Mapei Primer G diluted 1: 1 with water	Install Mapei Mapeguard UM 35	Seal back, face and edges of plywood with Mapei Primer G	Install Mapei Mapeguard UM 35	No primer is necessary for flooring grade chipboard which is presealed. Install Mapei Mapeguard UM35	All surfaces must be degreased and thoroughly cleaned to remove old polish residues etc. using Mapei UltraCare HD cleaner and primed with Mapei Eco Prim Grip Plus	All surfaces must be degreased and thoroughly cleaned to remove old polish residues etc. using Mapei UltraCare HD cleaner and primed using Mapei Eco Prim Grip Plus	All surfaces must be degreased and thoroughly cleaned to remove old polish residues etc. using Mapei UltraCare HD cleaner and primed using Mapei Eco Prim Grip Plus	Fit in accordance with manufacturers instructions. Specifications may vary according to substrates	Apply Mapei Primer G in a undiluted coat

Priming Primer G/Eco Prim Grip Plus	Diluted 1:1, 1 kg covers approximately 20m ²	Use undiluted, 1 kg covers 10m ²	Covers Approximately 20 m ²	Covers Approximately 20 m ²	Covers Approximately 20 m ²	n/a	Undiluted covers 10m ² Diluted 1:1 covers approximately 20m ²
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Please note all coverage recommendations are approximate.

Pro 50 Levelling Compound Coverage

Description	Adhesive Colour	Coverage	Depth						
			3mm	6mm	12mm	15mm	21mm	40mm	Underfloor heating
Mapei Ultraplan Renovation Screed 3240	n/a	kg per m ²	4.2kg	8.4kg	16.8kg	21kg	29.4kg	56kg	6kg
		m ² per 25kg bag	6m ²	3m ²	1.5m ²	1.2m ²	0.86m ²	0.45m ²	3m ²

The above recommendations are approximate and should be considered as a guideline only.

Adhesive Coverage

Description	Adhesive Colour	Porcelain	Porcelain
Mapei Superflexible and Mapei Rapid S1 Adhesive	Grey	5kg per m ²	5kg per m ²

Please note the adhesive coverage will depend on the size of tile, depth of adhesive required and to some extent the substrate. The above recommendations are based on an average tile size, adhesive bed of 4-5mm and should be considered as a guideline only. The Mapei Rapid S1 adhesive can be used up to a maximum depth of 10mm and the Mapei Superflexible up to 15mm.

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Sealants and Finishes

Product	Impregnator/Sealant	Grout Residue Remover	Finishing Product	Day to Day Cleaner	Occasional/Intensive Cleaner	Comments
Un-glazed Porcelain	Pre seal with Mapei UltraCare Grout Release	Mapei UltraCare Keranet Easy or Mapei UltraCare Keranet	Mapei Grout Protector	Mapei UltraCare Multicleaner	Mapei UltraCare HD Cleaner	Festival, Henge, Impact, Lombardia, Milan, Neutrals, North Beach, Riverbed, Skyline, South Beach.
Glazed Porcelain/Ceramic*	Not Required	UltraCare Keranet Easy or Keranet	Mapei Grout Protector	Mapei UltraCare Multicleaner	Mapei UltraCare HD Cleaner	Abbey*, Barbican, Berlin, Boulangerie, Casino, Cotto, Furnace, Giotto, Graphpaper, Hex, Istria, Jurassic Coast, Newlyn, Nougat, Obelisk, Odyssey, Patisserie*, Reconstruction Reykjavik, Rhombus, Rye Harbour, Sorrento, St Ives, Studland Bay, Taunton Trellis*, Tuscania.

No sealing is required if a resin brush in grout has been used. If any resin residues remain after a few days, then these can be removed using Mapei UltraCare HD Cleaner.

Grout Joint Width and Coverage

Ultracolor Plus grout is suitable for grout widths up to 20mm.

Please refer to product PIP's and the Fired Earth website for recommended grout joints.

We suggest using the grout calculator to work out exactly how much grout you'll need for your project – the grout calculator can be found at:

<https://www.mapei.com/it/en/tools-and-downloads/tools/product-calculator/grouts>