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# FIRED EARTH

## Floor Tiling Installation Guide

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March 2024

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## **Important Notes**

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

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

**Prior to installation, please ensure the tiles purchased are suitable for the application and thoroughly inspected. 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 our Technical Department for advice prior to commencing any tiling.**

**Fired Earth have tested a range of adhesives, grout and sealants to ensure compatibility with all of our tiles (see our Product Selector on pages 29 and 35).**

**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.**

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## Internal Substrates

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### Surface preparation:

Tiles can be fixed to most floors. 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 28 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.

Special care must be taken when tiling areas which may become damp or wet. See our Waterproofing Showers and Bathrooms Installation guide.

When tiling onto walls with floor tiles consideration must be given to weight, as floor tiles are often heavier than wall tiles. Our sales teams will be happy to confirm the weight of the tiles so you can confirm suitability. Please include 3kg per m<sup>2</sup> in your calculation to allow for the weight of the adhesive and grout.

### Sand and cement screeds:

New concrete floors must be allowed to dry for a minimum of 6 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.

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. Ensure that the screed is suitably dry and stable before any tiling is started. 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 in accordance with the technical data.

### 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 Levelling Compound which is suitable for use up to a depth of 40mm without risk of shrinking or cracking.

### Suspended timber floors/Floating insulated floors:

#### 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 UM35. If the suspended timber floor is subject to vertical movement, the floor must be overlaid with a minimum 15mm plywood over the existing timber which should be screwed down at 150mm centres.

### **Floating insulated floors:**

If the floating insulated floor (polystyrene with water resistant chip board over) is subject to vertical movement the floor must be braced by screwing and gluing WPB plywood to its surface or removing some of the boards so 'bearers' can be fitted below to provide further support. Seal all the surfaces of the plywood boards with Mapei Primer G.

### **Vinyl floor tiles:**

Thoroughly clean the floor to remove all contaminants such as oil, wax and grease, using Mapei UltraCare HD Cleaner. Prime the floor with Mapei Eco Prim Grip Plus primer.

## **Damp**

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

## **Finished Floor Levels**

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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**

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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, the under floor heating can then be turned on or increased in temperature at a rate of 5°C per day to the maximum temperature then reduced by 5°C per day to the required working temperature. Mapei Mapeguard UM 35 can be used as an anti-fracture membrane over Mapei Mapeheat Mesh. Alternatively, the Mapei Mapeheat Membrane Maxi combined with the Mapei Mapeheat cable may be considered. Our Sales Team will be happy to provide our separate information sheet.

All recommended adhesives and 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 the Fired Earth technical team on 01295 814271.

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## Wet Floors

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Please refer to our Waterproofing Showers and Bathrooms Installation Guide for further advice.

## Using Floor Tiles on Walls

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When tiling onto walls with floor tiles, consideration must be given to the weight of the tile and suitability of the substrate. Our Sales Team will be happy to confirm the weight of any of our tiles. In general, the following weights apply to the list of substrates, provided they are fixed correctly and sound and stable:

- Plaster – 20 kg/m<sup>2</sup>
- Plasterboard – 32 kg/m<sup>2</sup>
- Brick/block/render/Tile backer Board – 40 kg/m<sup>2</sup>

Please include in your calculations a 3kg per m<sup>2</sup> allowance for adhesive and grout.

For information on substrate preparation for wall tiling, please refer to the Fired Earth Wall Tiling Guide.

## Hearths and Fireplaces

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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. Not all tiles are suitable for use in this area. Please check tile suitability with our sales team before installation commences.

## Showers

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Extra care must be taken when tiling showers. Read and follow our recommendations in our Waterproofing Showers and Bathrooms Installation guide. Fired Earth sells suitable preparation products which ensure a successful installation avoiding any problems with water ingress. If you require any additional information on projects of this type, please contact our Technical Department.

Showers should not be used for at least 7 days after the tiling has been completed.

## Planning

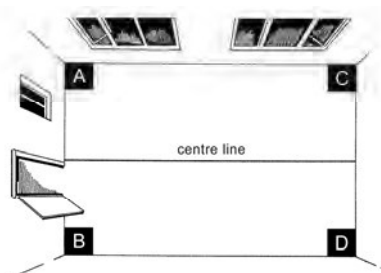
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Take the time to study the room and plan your work. Tiling usually commences in the corner furthest from the door. If there is more than one door, it will be necessary to decide which the primary entrance is.

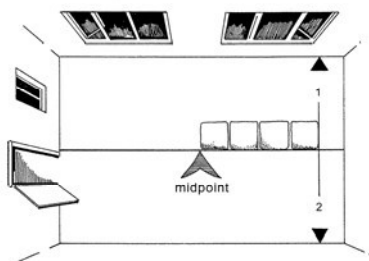
Consider how cuts will look against fixed furniture etc. and through doorways. Adjustments may be required to achieve the best results.

Please note: Where tiles have variable depths (see our brochure and price list for guidance) the thickest tile including the adhesive should be taken as the approximate floor height increase.

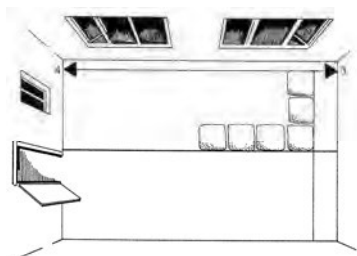
Step 1. Mark the centre line of the room from the wall of the primary entrance to the far end. You will need to measure and mark the midpoints of walls A to B and C to D. Join these two points with a taught chalk line and mark.



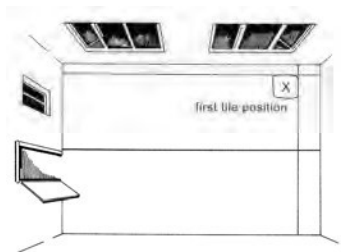
Step 2. Mark the midpoint of the room by measuring the centre of the line. From this point, lay down tiles (without fixing them) alongside the centre line, allowing for joints, to see where the last whole tile will end. Mark (with string or chalk) a line 1 to 2 at a right angle alongside this last whole tile.



Step 3. Locate starting point 'X' by laying down tiles along the new line 1 to 2 in the same way as before, to see where the last whole tile will end. Now mark your side line 3 to 4 at a right angle alongside this last whole tile.



Step 4. When tiling commences you should start at point 'X', so check that the lines you have marked make a perfect right angle and the side line runs parallel to the centre line.



## **Grout joints:**

The width of grout joints will vary between 3–20mm. Large joints will be necessary on rustic tiles such as terracotta and slate. Please refer to the Fired Earth price list for recommended grout joints.

Roman Mosaic tiles should be butt jointed (no allowance made for a grout joint) except when used in a shower where a narrow but impervious grout joint will be necessary.

When fitting random sized tiles an area should be 'dry laid' first to establish the optimum joint width. Joint sizes may vary from 2mm-10mm across the floor depending on the mixture of tile sizes used and the chosen pattern.

Mosaic tiles - Ensure that the sheets of mosaic tiles are spaced so that once grouted, no individual sheets can be distinguished.

## Fixing

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Before commencing tiling, please ensure you are familiar with the important notes on page 4.

All Fired Earth suggested Floor Tile adhesives are cement based, flexible and designed for fixing our full range of tile. They are water resistant and suitable for both internal and external applications. All our adhesives come in a choice of white or grey; white adhesive is more suitable for tiling translucent glass and light coloured tiles. Some of our tiles vary considerably 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 before commencing with the installation. Irregular or bowed tiles may require a greater depth of adhesive in order to 'iron out' potential irregularities in the finished surface. Mapei Superflexible adhesive is perfect for this purpose and can be used up to 15mm in depth.

### Preparation:

Please check your substrates suitability for tiling before proceeding, see pages 5 - 6.

Damp tiles should be stored on end in a well-ventilated area to dry thoroughly before fixing. This may in particular apply to Natural Stone, Romana, Reclaimed Terracotta and Encaustic tiles.

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.

### Mixing:

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

### Application:

Spread the adhesive using a suitable notched trowel, a 6mm trowel is normally appropriate for fast-set and standard set adhesive, a larger notched trowel is necessary for fixing with thick-bed. The adhesive should be applied to the surface to form parallel ribs into which the tile can be applied. Spread only enough adhesive that remains workable, we would recommend an area of approximately 1 square metre.

Where necessary butter the back of the tile with 2mm of adhesive and place the tile in the starting position as described in the Planning Steps 1 to 4. When laying thin, machine made glazed, porcelain or quarry tiles to an even surface it may be possible to fix the tiles directly onto a thin bed of adhesive, without having to butter the back of the tile.

Stone or glass tiles are normally fixed with white adhesive to prevent the colour of the adhesive 'bleeding' through. 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 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. Once a square

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metre area has been tiled, another similar area can be prepared and so on until you have completed the floor with whole tiles. 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. Fixing tiles into sand and cement should be avoided because of the time required for the tiles to dry out and the associated problem of efflorescence.

## Cutting

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Due to the thickness and make-up of the majority of our floor tiles, it is recommended that either a diamond cutter or an angle grinder is used to cut the tiles. Water cooled diamond cutters are available from tool hire shops.

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

Porcelain tiles require high quality diamond 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. Using a water cooled diamond cutter will achieve the most accurate cut.

When using an angle grinder, mark the tile where you wish to cut it, run the cutting disc along the marked surface cutting the tile to at least two thirds of its depth; then the tile can be snapped. Rough edges and chips should be smoothed and finished with a sanding block or in severe cases, by rubbing the tile edge with a broken piece of another tile.

Roman Mosaic - Metal reinforcing bars are used in the manufacture of border designs and may cause excessive wear on cutting equipment. Care should be taken to ensure that the pattern is correctly matched, particularly in the case of the basket weave design. Small pieces of mosaic can become detached during cutting and should be glued back into place using an epoxy or similar glue.

## Sealing

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### Pre-cleaning:

Some of our tiles will require pre-cleaning before installation please refer to the Product Selector on page 36.

### Sealing:

It is important for the correct products to be used when pre-cleaning, sealing, finishing and maintaining your tiles. The products we have selected have been specifically chosen to enhance, protect and maintain your tiles.

Please be aware that any deviation from our recommendations could affect the appearance, capabilities and longevity of your tiling. Please refer to product selectors on pages 28 - 35 for more details of our recommended ancillaries.

Before sealing commences, ensure you have read the specific instructions for your chosen tile detailed in the pages that follow which outline the processes for each product group within our range. Should you have any queries please contact our Technical Department on 01295 814271 who will be happy to answer any questions you may have.

Some sealants will enhance the colour of our tiles and others will maintain the natural appearance; it is important you are sure the sealant you have purchased will achieve the desired results. If in doubt, seal a single tile to confirm.

All tiles must be clean and dry before sealing otherwise you may seal in dirt or moisture which will impair the final appearance. The process of sealing should be kept meticulously clean and all materials including brushes and cloths etc should be new and unused.

The drying times recommended in the following pages may be altered by the actual site conditions (heat, humidity, ventilation etc). Please refer to the manufacturers' guidelines on drying times for each product.

Fired Earth recommends that traffic across a newly sealed floor is kept to a minimum for the first week as sealants can take a few days to fully oxidise and may not be fully effective during this time.

## Grouting

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Mapei Ultracolor Plus grout is suitable for internal and external applications and in fully immersed situations such as pools. It is water resistant but not impervious to the passage of water. In situations where the background needs to be protected against water ingress the use of a suitable tanking membrane should be considered.

Mapei Ultracolor plus is flexible therefore suitable for most tiling projects provided the tiled area has been correctly prepared. Some Mapei grouts may be more suitable than others dependant on its intended use. Mapei Keracolor FF grout is suitable for grout joints from 1-6mm and Mapei Ultracolor Plus grout is suitable for grout joints from 2-20mm. Mapei Ultracolor Plus is also a mould resistant grout for wet areas. Before

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proceeding with your grouting, please ensure you have checked the colour of your grout against your chosen tile.

## **Preparation:**

Prior to grouting the adhesive bed should be cured and the grout joints clean, dry and free from adhesive residues, dirt, dust and other loose debris. Curing of adhesive usually takes between 12-24 hours for Mapei Superflexible Adhesive and 2-3 hours for Mapei Rapid S1 tile adhesive. The depth of adhesive, ambient room temperature, sub-floor and porosity of the tile will all affect the drying time.

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 grout can be removed without staining the tiles and that you are happy with your chosen grout colour.

Porous tiles should be sealed before grouting (see page 12).

Grouts may lodge in the crackled surface of some tiles, which will highlight the crackle effect - ideal if an 'antique look' is required. If not, the tiles should be sealed with 1- 2 coats of Mapei UltraCare Stain Protector S, prior to grouting.

Grouts by other manufacturers, particularly those containing strong colour pigments, may permanently stain the tile. Always test a small area of tiles prior to grouting the entire area.

## **Mixing:**

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

## **Application:**

Grouting is the careful application of grout between the tiles. 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. Grout to be finished using an appropriate grout float.

When grouting unfilled tiles, the grout needs to be pressed into the grout joints and surface pits of the tile with a grout float or squeegee. 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. Grout to be finished using an appropriate grout float.

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 continuous sequence, particularly with mosaics, to avoid colour variation. Changing the cleaning water as it becomes contaminated will also aid cleaning. When the grout has set, any remaining grout can be polished off the surface with a clean, damp cloth.

Should efflorescence form, these salts can be removed once the grout has fully dried and cured by frequent washing with clean water or suitable efflorescence cleaner, such as Mapei UltraCare Keranet. As long as the tile surface is acid resistant.

The surface of some tiles can be easily scratched so the application and cleaning of the grout must be carried out carefully. Ensure that any tools used for grouting are completely clean and free of any hardened grout etc.

All perimeter joints must be finished with a good quality silicone sealer, such as Mapei Mapesil AC or Mapei Mapesil LM for stone, and not with grout. This will allow for expansion and contraction in the tiles during normal heating and cooling cycles. Please note a neutral cure silicone is recommended for all natural stone.

To protect the grout joints from staining seal with Mapei UltraCare Grout Protector Spray. This can be applied once the grout is completely dry, three days after grouting.

- To protect the grout joints from staining, seal with Mapei UltraCare Grout Protector Spray.
- Spray onto the grout joint until saturation. Remove any overspray from the tile surface before it dries, using a clean, soft cloth.

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## Terracotta and Romana Brick Tiles

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Terracotta tiles are manufactured from natural clays which vary in colour and texture. Differences in colour can also occur in the firing process. Any colour variation will be accentuated by the sealants which are chosen to enhance the natural colour and beauty of the tiles.

Terracotta tiles are generally more porous than most floor tiles, so it is important to take care to seal the tiles fully. Romana tiles in particular can vary enormously in porosity.

### Sealing:

***NB Pre-sealed Terracotta tiles are pre-sealed and require no sealing. Please refer to the details below for information on finishing.***

Fired Earth recommends pre-sealing Terracotta tiles with Mapei UltraCare Grout Release. We recommend that a number of sample tiles are tested for porosity, which will give an indication of the amount of sealer the tiles will require.

- Shake the bottle of Mapei UltraCare Grout Release well before and during use.
- Check the tiles are completely dry, clean and stain free.
- 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.

The Grout Release should be left to dry for 4 – 8 hours before grouting.

### Grouting:

Before the finishing process can begin, please grout the tiles referring to the information on page 13 of this guide.

#### **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 UltraCare Keranet Easy significantly reduces the waiting time to undertake the initial clean. 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.

## Further Sealing:

Shake well before use. Apply MAPEI Stain Protector W Plus over both the tiles and grout. Apply using a brush, cloth or fleece applicator. Apply evenly and remove any residues after 10 – 15 minutes, using a clean cloth. After drying (1-2 hours) a new coat can be applied. The application of more coats may be necessary in case of highly absorbent materials and additional coats should be applied within two hours of the previous coat. The surface is set to light foot traffic approx. 2 hours after the final application.

## 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 diluted 1:200, 50ml in 10 litres of water, should be used for day to day cleaning.

## Geometric Tiles

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### Pre Sealing:

Geometric tiles should be sealed with Mapei UltraCare Grout Release before grouting (see page 13).

- 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. 1-2m<sup>2</sup> 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.**

### Grouting:

Before the finishing process can begin, please grout the tiles referring to the information on page 13 of this guide.

#### **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 UltraCare Keranet Easy significantly reduces the waiting time to undertake the initial clean. 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.

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### **Further Sealing of the Tiles:**

Shake well before use. Apply MAPEI Stain Protector W Plus over both the tiles and grout. Apply using a brush, cloth or fleece applicator. Apply evenly and remove any residues after 10 – 15 minutes, using a clean cloth. After drying (1-2 hours) a new coat can be applied. The application of more coats may be necessary in case of highly absorbent materials and additional coats should be applied within two hours of the previous coat. The surface is set to light foot traffic approx. 2 hours after the final application.

No further sealant or finishes are required for this tile.

## **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 diluted 1:200, 50ml in 10 litres of water, should be used for day to day cleaning.

## **Slate Tiles**

As with all natural products, slate tiles require a certain degree of care. All slate tiles are porous; therefore, it is important to seal the slate correctly to reduce the natural absorption and maintain the desired appearance. If the recommended care system is used the surface will be easier to maintain.

A certain amount of delamination should be expected from slate tiles during and following installation. During installation any loose flakes should be broken off. Where delamination occurs after installation, the affected area should be re-sealed. Slate tiles should not be installed in areas subject to direct and intense heat, as this may cause extensive delamination.

### **Preparation:**

Before sealing commences, we recommend that the slate is cleaned with Mapei UltraCare Multicleaner to remove general dirt and quarry dust from the riven areas and pores. After use, rinse the surface completely and allow to dry for 24 hours.

Grout the floor referring to the information on page 13 of this guide.

### **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 UltraCare HD Cleaner can be used to undertake the initial clean. Dilute Mapei UltraCare HD Cleaner 1:5 and 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.

### **Sealing:**

There are two options for sealing slate dependant on the final colour you require:

#### **Maintaining the natural colour:**

Shake well before use. Apply MAPEI Stain Protector W Plus over both the tiles and grout. Apply using a brush, cloth or fleece applicator. Apply evenly and remove any residues after 10 – 15 minutes, using a clean cloth. After drying (1-2 hours) a new coat can be applied. The application of more coats may be necessary in case of highly absorbent materials and additional coats should be applied within two hours of the previous coat. The surface is set to light foot traffic approx. 2 hours after the final application.

#### **Enhancing the natural colour:**

Shake well before use. As slate has a lower level of porosity, apply Mapei UltraCare Intensifier W, diluted 1:1 in water, onto the dry (or slightly damp) substrate with a brush, roller or fleece applicator in a thin and even layer. Remove any product that is pooling on the surface before it dries (5 - 10 minutes in normal conditions). Subsequent coats should be applied undiluted. To enhance the colour of the material even more, additional coats of the product may be applied, waiting one hour between each application and repeating the operations described above.

Surfaces may be opened to light foot traffic 8 hours after application (when applied +23°C with 50% R.H.).

### **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 diluted 1:200, 50ml in 10 litres of water, should be used as an everyday cleaner.

### **Natural Stone and Stone Mosaics**

As with all natural products, stone tiles require a certain degree of care. All stone tiles are porous; therefore it is important to seal the stone correctly to reduce the natural absorption and maintain the desired appearance. If the recommended care system is used the surface will be easier to maintain.

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The filler used in our honed and filled stone may require attention from time to time. Simply fill any holes that appear with either limestone grout or a 2-part resin based filler which is available for purchase from Fired Earth. Please ask a member of our Sales team for more information.

## **Preparation:**

Before sealing commences, we recommend that the stone is cleaned with Mapei Mapei UltraCare Multicleaner to remove general dirt and quarry dust from the surface and pores. After use, rinse the surface completely and allow to dry for 24 hours.

### **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.

For unpolished natural stone and mosaics Mapei UltraCare HD Cleaner can be used to undertake the initial clean. Dilute Mapei UltraCare HD Cleaner 1:5 and 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 polished natural stone and mosaics Mapei UltraCare Multicleaner can be used to undertake the initial wash. Dilute Mapei UltraCare Multicleaner 1:30 and 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.

## **Sealing:**

There are two options for sealing stone dependant on the final colour you require:

### **Maintaining the natural colour:**

On unpolished and unpolished stone - Shake well before use. Apply MAPEI Stain Protector W Plus over both the tiles and grout. Apply using a brush, cloth or fleece applicator. Apply evenly and remove any residues after 10 – 15 minutes, using a clean cloth. After drying (1-2 hours) a new coat can be applied. The application of more coats may be necessary in case of highly absorbent materials and additional coats should be applied within two hours of the previous coat. The surface is set to light foot traffic approx. 2 hours after the final application.

### **Enhancing the natural colour:**

On polished natural stone - Shake well before use. Apply Mapei UltraCare Intensifier S onto the dry substrate with a brush, roller or fleece applicator in a thin and even layer. Use a cloth to spread the product over the surface to help it penetrate into the stone and remove any excess wet product before it dries (5 – 10 minutes in normal conditions) Surfaces may be opened to foot traffic 8 hours after application (when applied at +23°C with 50% R.H. Actual time depends on environmental conditions and absorbency rate of the material to be treated). To enhance the colour of the material even more, and depending on the absorbency of the material, additional coats of the product may

be applied, waiting one hour between each application and repeating the operations described above.

On unpolished natural stone – Shake well before use. Apply Mapei UltraCare Intensifier W onto the dry (or slightly damp) substrate with a brush, roller or fleece applicator in a thin and even layer. Remove any product that is pooling on the surface before it dries (5 - 10 minutes in normal conditions). Actual time depends on environmental condition and absorbency of the material to be treated. Surfaces may be opened to foot traffic 8 hours after application (when applied +23°C with 50% R.H.). If applying Mapei UltraCare Intensifier W onto a surface with lower porosity, then the first coat should be applied diluted 1:1 in water. Subsequent coats should be applied undiluted. To enhance the colour of the material even more, additional coats of the product may be applied, waiting one hour between each application and repeating the operations described above.

## **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 diluted 1:200, 50ml in 10 litres of water, should be used as an everyday cleaner.

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## Un-Glazed Porcelain Tiles

Despite these tiles being very dense, robust and hard wearing, there is an option to pre seal the tiles.

### Preparation: Pre Seal

After the tiles have been installed, but prior to grouting, you can pre seal the tile using Mapei UltraCare Grout Release, which will prevent the grout from any potential staining.

- Shake the bottle of Mapei UltraCare Grout Release well before and during use.
- Check the tiles are completely dry, clean and stain free.
- 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.
- **Ensure that the sealer is left a minimum of 4 - 8 hours before grouting commences.**

Grout the floor referring to the information on page 13 of this guide. Slurry grouting is not recommended for porcelain tiles.

### 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 UltraCare Keranet Easy significantly reduces the waiting time to undertake the initial clean. 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.

### Sealing:

- Unglazed tiles do not require sealing.
- To protect the grout joints from staining, seal with Mapei UltraCare Grout Protector Spray. This should be applied once the grout is completely dry, three days after grouting.
- Spray onto the grout joint until saturation. Remove any overspray from the tile surface before it dries, using a clean, soft cloth.

## **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 diluted 1:200, 50ml in 10 litres of water, should be used as an everyday cleaner.

## **Glazed Porcelain Tiles**

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No sealing products are required for these tiles. However, we recommend that once installed the grout joints are protected using Mapei UltraCare Grout Protector Spray.

### **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 UltraCare Keranet Easy significantly reduces the waiting time to undertake the initial clean. Mapei UltraCare Keranet Easy can be used as soon as the grout becomes opaque. Spray the Mapei 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.

## **Sealing:**

- Unglazed tiles do not require sealing.
- To protect the grout joints from staining, seal with Mapei UltraCare Grout Protector Spray. This should be applied once the grout is completely dry, three days after grouting.
- Spray onto the grout joint until saturation. Remove any overspray from the tile surface before it dries, using a clean, soft cloth.

## **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 tiles. General household cleaners may be too aggressive and are likely to damage the tile surface.

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Mapei UltraCare Multicleaner diluted 1:200, 50ml in 10 litres of water, should be used as an everyday cleaner.

## **Glass Tiles**

No sealing products are required for these tiles. However, we recommend that once installed the grout joints are protected using Mapei UltraCare Grout Protector Spray.

### **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 UltraCare Keranet Easy significantly reduces the waiting time to undertake the initial clean. 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.

## **Sealing:**

- Unglazed tiles do not require sealing.
- To protect the grout joints from staining, seal with Mapei UltraCare Grout Protector Spray. This should be applied once the grout is completely dry, three days after grouting.
- Spray onto the grout joint until saturation. Remove any overspray from the tile surface before it dries, using a clean, soft cloth.

## **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 tiles. General household cleaners may be too aggressive and are likely to damage the tile surface.

Mapei UltraCare Multicleaner diluted 1:200, 50ml in 10 litres of water, should be used as an everyday cleaner.

## **External Floor Tiling**

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Many of our tiles are suitable for external use. As we sell our tiles all over the world, atmospheric/climate conditions must be taken into consideration.

For more information on specific tiles please speak to our Sales Team or our Technical Department.

## Glossary

Adhesion -	The ability to stick
Angle Grinder -	Electrical tile cutting tool
Anhydrite Screeds -	Calcium based screed, seek advice
Anti fracture Membrane-	Separation membrane used underneath tiling to reduce the risk of cracking
Appliances -	Fridge, dishwasher etc.
Asphalt -	Black, bituminous base
Bedding -	Depth of material to seat tiles
Bitumen -	Black in colour, often used as a glue to stick vinyl tiles
Bowed -	Convex or concave shaped tiles
Buffed -	Abrasion of a waxed surface
Butter -	Applying a thin bed of adhesive to the back of the tile.
Butt Jointed -	Fixing tiles together tightly with no allowance for a grout joint
Chalk Line -	Tool used to provide straight line for setting out tiles
Chipboard -	A composition of fibrous timber
Coatings -	Material applied to a surface
Compacting -	Pressing material firmly into position
Curing -	Improvement in strength, hardness, durability and other properties of a material.
Damp Proof Membrane (DPM) -	A layer of impervious material installed to prevent rising damp
Day Joints -	A 'joint' in the screed as a result of a break in pouring the screed
Delamination -	Loss of some or all of a naturally occurring layer of slate
Diamond Cutter -	Electrical cutting tool
Expansion Joints -	A space allowed in a floor to allow for movement
Efflorescence -	The process of salts appearing on the surface of the tile or grout
Floating or Insulated Floor -	A thermally efficient floor which is not physically attached to its base
Filled Stone -	Where any naturally occurring holes have been filled with resin based filler
Finishing -	Process of applying final coat of sealer
Fired Earth Primer -	Primer for surfaces prior to applying tile adhesive.
Levelling Compound -	Material used to remove unacceptable variations of level in a sub floor, or bed under floor heating
Grout Float -	Tool used to apply grout
Grout Joints -	Channel formed between tiles to be filled with grout material
Honed Stone -	Mechanical process used to smooth the surface of natural stone
Movement Joint-	An area which allows for movement caused by change in temperature/humidity etc.
Notched Trowel -	Tool designed to apply a specified depth of adhesive
Oxidise -	Hardening reaction following exposure to the air
Pre-sealed - Sand and	Pre-treated with sealer at the factory
Cement Screed -	A mixture laid to form an accurate flat base
Sealing -	Process of applying liquids to reduce porosity
Spoil -	Excessive or surplus sealer
Squeegee -	Rubber edged tool to aid removal of excess grout
Straight Edge -	Tool used to ensure tiles are 'straight' and 'flat'.

Sub floor/substrate - The surface on to which the tiles are to be laid  
Thermal Movement - Movement induced by temperature change  
Uncalibrated - Tiles will vary in depth  
Wax Polish - Protective finish  
WBP Plywood - Minimum 18mm deep, suitable grade for floor tiling

## Tile Essentials Adhesive and Grouts, and Sealant Products

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A full range of high quality fixing and sealing products, researched and developed to meet Fired Earth standards, are available for both professional and DIY use.

Read the instructions on the packaging of Adhesives, Grouts and Sealants very carefully.

### Website:

[www.firedearth.com](http://www.firedearth.com)

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

### Useful Numbers:

UK Sales	0845 366 0400
Export Sales	+44 (0)1295 814316
Installations	01295 814310
Technical	01295 814271
Home Deliveries	01295 814313
Customer Care	01295 814396

### 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.

## 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					
<b>Watch Points</b>	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 plywood, minimum 15mm. Countersink screws at 150mm centres	Overlay with minimum 15mm thick plywood	Overlay with flooring grade chipboard (in dry areas only) prior to installing Mapeguard UM35	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
<b>Preparation</b>	If dusty or porous, seal with Mapei Primer G	Seal Mapei Eco Prim Grip Plus Install Mapei Mapeguard UM35 over boards (see instructions)	Seal back, face and edges of plywood with Mapei Primer G	Seal Mapei Eco Prim Grip Plus Install Mapei Mapeguard UM35 over boards (see instructions)	No primer is necessary for flooring grade chipboard which is presealed. Install Mapei Mapeguard UM35 over boards (see instructions)	All surfaces must be degreased and thoroughly cleaned to remove old polish residues etc. using Mapei Mapei UltraCare HD cleaner and prime with Mapei Eco Prim Grip Plus	All surfaces must be degreased and thoroughly cleaned to remove old polish residues etc. using Mapei 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 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

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

## Adhesive Coverage

Description	Adhesive Colour	Tile Range										
		Terracotta		Encaustic	Stone		Slate		Porcelain and Geometric		Wall Tiles	
		Romana and Reclaimed Terracotta	Other		Up to 30 x 30cm	Over 30 x 30cm	Urban	Uncalibrated slate	Up to 30 x 30cm	Over 30 x 30cm	Up to 30 x 30cm	Over 30 x 30cm
Flexible Standard set and Fast-set adhesive	All	n/a	3.5kg per m²	3.5kg per m²	3.5kg per m²	n/a	n/a	3.5kg per m²	3.5kg per m²	n/a	2.7kg per m²	3.4kg per m²

Please note 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.

## Levelling Compound Coverage

Description	Adhesive Colour	Coverage	Depth							
			3mm	5mm	10mm	15mm	25mm	40mm	50mm	Underfloor heating
<b>Mapei Ultraplan Renovation Screed</b>	n/a	kg per m <sup>2</sup>	4.2kg	7kg	14kg	21kg	35kg	56kg	a/a	5kg
		m <sup>2</sup> per 25kg bag	5.95m <sup>2</sup>	3.57m <sup>2</sup>	1.79m <sup>2</sup>	1.19m <sup>2</sup>	0.71m <sup>2</sup>	0.45m <sup>2</sup>	n/a	4m <sup>2</sup>
<b>Thickbed Adhesive</b>	All	kg per m <sup>2</sup>	5kg	8.4kg	16.7kg	25kg	n/a	n/a	n/a	5kg
		m <sup>2</sup> per 20kg bag	4m <sup>2</sup>	2.4m <sup>2</sup>	1.2m <sup>2</sup>	0.8m <sup>2</sup>				4m <sup>2</sup>

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

## Suitability and Coverage Chart – Porcelain and Geometric

Product range	Tile Colour	D.I.Y Installer		Professional Installer		Grout	Tile Size	Grout Coverage				
		Up to 30 x 30cm	Over 30 x 30cm	Up to 30 x 30cm	Over 30 x 30cm							
Porcelain												
Moderna	All	Superflexible White or Grey Adhesive	Superflexible White or Grey Adhesive	Rapid S1 White or Grey Adhesive	Superflexible or Rapid S1 White or Grey Adhesive	All suitable	39.7 x 39.7	0.4kg per m²				
							59.7 x 59.7	0.3kg per m²				
							39.7 x 79.7		59.7 x 119.7	0.2kg per m²		
							30 x 30cm mosaics	3.6kg per m²				
							9.7 x 9.7	1kg per m²				
Travertino	All						9.7 x 59.7	1kg per m²				
							30 x 30	0.5kg per m²				
							30 x 60	0.4kg per m²				
40 x 40	30 x 30cm mosaics						2.6kg per m²					
Neutrals	All						39.7 x 39.7	0.5kg per m²				
							59.7 x 59.7	0.3kg per m²				
Terrano	All						30 x 30cm mosaics	2.6kg per m²				
							40 x 40cm	0.5kg per m²				
		20 x 20cm	1.4kg per m²									
Encaustic	All	Superflexible white	n/a	Superflexible white	n/a		9.7 x 39.7	0.8kg per m²				
Arboreto	All	Superflexible White or Grey Adhesive	Superflexible White or Grey Adhesive	Rapid S1 White or Grey Adhesive	Superflexible White or Grey Adhesive		9.7 x 119.7	0.7kg per m²				
							14.7 x 119.7	0.5kg per m²				
							19.7 x 119.7	0.4kg per m²				
							30.3 x 30.3	0.7kg per m²				
Umbria	All						45.6 x 45.6	0.5kg per m²				
							9.9 x 9.9	1kg per m²				
Geometric	All							n/a		n/a		

Sardinia	All	n/a	Superflexible White or Grey Adhesive	n/a	Superflexible White or Grey Adhesive	45.6 x 45.6	0.4kg per m <sup>2</sup>
Siena	All					30 x 60	0.4kg per m <sup>2</sup>
Verona	All					50 x 50	0.4kg per m <sup>2</sup>
Sahara	All	Superflexible White or Grey Adhesive	n/a	Rapid S1 White or Grey Adhesive	n/a	30 x 30	0.4kg per m <sup>2</sup>
Forma	All					30 x 30	0.6kg per m <sup>2</sup>
Mono	All					30 x 30	0.4kg per m <sup>2</sup>
Cotto	All					30 x 30	0.4kg per m <sup>2</sup>

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

## Suitability and Coverage Chart – Natural Stone

Product range	Tile Colour	D.I.Y Installer		Professional Installer		Grout	Tile Size	Grout Coverage
		Up to 30 x 30cm	Over 30 x 30cm	Up to 30 x 30cm	Over 30 x 30cm			
Stone								
Jericho Limestone	Lime stone	Supeflexible White Adhesive for limestone, Superflexible Grey Adhesive for grey product	Superflexible White Adhesive for limestone, Supeflexible Grey Adhesive for grey product	Rapid S1 White Adhesive for limestone, Rapid S1 Grey Adhesive for Grey product	Superflexible White Adhesive for limestone, Supeflexible Grey Adhesive for grey product	We recommend limestone or cream with these tiles	30 x 30	0.8kg per m²
							45 x 45	0.5kg per m²
							60 x 60	0.4kg per m²
							30 x 60	0.6kg per m²
Venetian Stone Mosaics	All	Superflexibe Set White Adhesive	n/a	Rapid S1 White Adhesive	n/a		2.3cm mosaics	4.1kg per m²
							10 x 10	1.4kg per m²
							4.8cm mosaics	2.2kg per m²
Breton Limestone	All	n/a	Superflexible White Adhesive	n/a	Superflexible White Adhesive		40x40	0.9kg per m2
							60x40	0.5kg per m2
Cathedral Limestone	Lime stone	Superflexible White Adhesive	Superflexible White Adhesive	Rapid S1 White Adhesive	Superflexible White Adhesive		20 x 20	2kg per m²
Cathedral Limestone	Antique						20 x 40	1.8kg per m²
							40 x 40	1.4kg per m²
							40 x 60	1.1kg per m²
Old Tuscan Travertine	All						20 x 20	1.6kg per m²
							20 x 40	1.3kg per m²
							40 x 40	1.2kg per m²
Artesh Travertine	All						40 x 60	1kg per m²
							20 x 20	1.3kg per m²
							20 x 40	1.1kg per m²
							40 x 40	0.9kg per m²
						40 x 60	0.8kg per m²	
						20 x 20	0.9kg per m²	
						20 x 40	0.8kg per m²	
						40 x 40	0.6kg per m²	
Roman Mosaics	All	Superflexible White Adhesive	n/a	Rapid S1 White Adhesive	n/a	40 x 60	0.5kg per m²	
						30 x 30	0.8kg per m²	
						30 x 60	0.6kg per m²	
						10 x 10	1.2kg per m²	
						20 x 20	0.9kg per m²	
						10 x 40	0.9kg per m²	

Piazza Limestone	n/a	n/a	Superflexible White Adhesive	n/a	Superflexible White Adhesive		45x45	0.4kg per m²
Campagne	All						70 x 40	1.2kg per m²
Bastide Flagstones	n/a						40 x 58	1.3kg per m²
							58 x 87	0.9kg per m²
Foundry Art Insets - apply slurry bond coat to the reverse of the tile before installation								
Foundry Art	n/a	Select adhesive and grout appropriate to base tile type as specified on this chart						
Product range	Tile Colour	D.I.Y Installer		Professional Installer		Grout	Tile Size	Grout Coverage
		Up to 30 x 30cm	Over 30 x 30cm	Up to 30 x 30cm	Over 30 x 30cm			
Stone								
Jericho Limestone	Lime stone	Supeflexible White Adhesive for limestone, Superflexible Set Grey Adhesive for grey product	Superflexible White Adhesive for limestone, SuperflexibleGrey Adhesive for grey product	Rapid S1 White Adhesive for limestone, Rapid S1 Grey Adhesive for Grey product	Superflexible White Adhesive for limestone, Superflexible Grey Adhesive for grey product	We recommend limestone or cream with these tiles	30 x 30	0.8kg per m²
							45 x 45	0.5kg per m²
							60 x 60	0.4kg per m²
							30 x 60	0.6kg per m²
Venetian Stone Mosaics	All	Superflexible White Adhesive	n/a	Rapid S1 White Adhesive	n/a		2.3cm mosaics	4.1kg per m²
							10 x 10	1.4kg per m²
							4.8cm mosaics	2.2kg per m²
Cathedral Limestone	Lime stone	Superflexible White Adhesive	Superflexible White Adhesive	Rapid S1 White Adhesive	Superflexible White Adhesive		20 x 20	2kg per m²
							20 x 40	1.8kg per m²
							40 x 40	1.4kg per m²
							40 x 60	1.1kg per m²
Cathedral Limestone	Antique						20 x 20	1.6kg per m²
							20 x 40	1.3kg per m²
Old Tuscan Travertine	All						40 x 40	1.2kg per m²
							40 x 60	1kg per m²
							20 x 20	1.3kg per m²
							20 x 40	1.1kg per m²
Artesh Travertine	All						40 x 40	0.9kg per m²
							40 x 60	0.8kg per m²
							20 x 20	0.9kg per m²
							20 x 40	0.8kg per m²
							40 x 40	0.6kg per m²
							40 x 60	0.5kg per m²
							30 x 30	0.8kg per m²
							30 x 60	0.6kg per m²

Roman Mosaics	All	Superflexible White Adhesive	n/a	Rapid S1 White Adhesive	n/a	10 x 10	1.2kg per m <sup>2</sup>
Piazza Limestone	n/a	n/a	Superflexible White Adhesive	n/a	Superflexible White Adhesive	20 x 20	0.9kg per m <sup>2</sup>
Campagne	All					10 x 40	0.9kg per m <sup>2</sup>
Bastide Flagstones	n/a					40 x 40	0.4kg per m <sup>2</sup>
						70 x 40	1.2kg per m <sup>2</sup>
						40 x 58	1.3kg per m <sup>2</sup>
						58 x 87	0.9kg per m <sup>2</sup>
Foundry Art Insets - apply slurry bond coat to the reverse of the tile before installation							
Foundry Art	n/a	Select adhesive and grout appropriate to base tile type as specified on this chart					

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

## Suitability and Coverage Chart – Lapidica and Architectural Stone Collections

Product range	Tile Colour	D.I.Y Installer		Professional Installer		Grout	Tile Size	Grout Coverage
		Up to 30 x 30cm	Over 30 x 30cm	Up to 30 x 30cm	Over 30 x 30cm			
Exclusive Stone Collections								
Lapicida Exclusive Limestone Collection	All	Superflexible White Adhesive	n/a	Rapid S1 White Adhesive	n/a	We recommend cream or limestone for pale coloured stones, with the light and dark grey more suited to the dark tones	Viscount	1kg per m²
		n/a	Superflexible White Adhesive	n/a	Superflexible White Adhesive		Monpelier	
							40 x 60	1.2kg per m²
							50 x 50	
Archititectoral Stone	All	Superflexible White Adhesive	n/a	Rapid S1 White Adhesive	n/a		50 x 100	0.9kg per m²
		n/a	Superflexible White Adhesive	n/a	Superflexible White Adhesive		20 x 40	1.2kg per m²
							40 x 40	0.9kg per m²
							40 x 60	0.8kg per m²
		Superflexible White Adhesive	n/a	Rapid S1 White Adhesive	n/a		20 x 60	1.1kg per m²
							7.5 x 7.5	1.9kg per m²
						7.5 x 15	1.3kg per m²	
		Superflexible White Adhesive	n/a	Rapid S1 White Adhesive	n/a	15 x 15	1kg per m²	
						15 x 60	0.7kg per m²	



## Suitability and Coverage Chart – Slate

Product range	Tile Colour	D.I.Y Installer		Professional Installer		Grout	Tile Size	Grout Coverage
		Up to 30 x 30cm	Over 30 x 30cm	Up to 30 x 30cm	Over 30 x 30cm			
Slate								
Pale Classic Quartz	n/a	Superflexible gey				We recommend light or dark grey with this tile	30 x 30	1kg per m²
							40 x 60	0.8kg per m²
Silver Blue Slate		Superflexible gey					15 x 15	2kg per m²
							15 x 30	1.5kg per m²
							20 x 30	1.2kg per m²
							30 x 30	1.1kg per m²
							28 x 40	1.2kg per m²
							40 x 60	1.2kg per m²
Imperial Slate		Superflexible gey					30 x 30	1.2kg per m²
Slate Flagstones		Superflexible gey					40 x 60	1.6kg per m²
Urban slate		Superflexible gey					40 x 40	0.5kg per m²
							40 x 60	0.4kg per m²
							60 x 60	0.4kg per m²
							60 x 90	0.4kg per m²
Multicoloured Slate		Superflexible gey					30 x 30	1.3kg per m²
							30 x 40	1.3kg per m²

Welsh Mountain Slate	Superflexible gey	20 x 20	1.7kg per m <sup>2</sup>
		20 x 40	1.4kg per m <sup>2</sup>
		40 x 40	1.1kg per m <sup>2</sup>
		40 x 60	1kg per m <sup>2</sup>
		30 x 30	1.5kg per m <sup>2</sup>
		40 x 70	1.2kg per m <sup>2</sup>

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

## Suitability and Coverage Chart – Terracotta

Product range	Tile Colour	D.I.Y Installer		Professional Installer		Grout	Tile Size (cm)	Grout Coverage
		Up to 30 x 30cm	Over 30 x 30cm	Up to 30 x 30cm	Over 30 x 30cm			
Terracotta - tiles must be fully dry before installation commences								
Black terracotta	n/a	Superflexible gey	Superflexible gey	Superflexible gey	Superflexible gey	We recommend light or dark grey with this tile	40 x 40	1.8kg per m²
							30 x 30	2.1kg per m²
							14 x 30	2.6kg per m²
Romana	n/a	Superflexible gey	n/a	Superflexible gey	n/a	We recommend sandstone with these tiles	12 x 25	3kg per m²
Reclaimed Terracotta	n/a	Superflexible gey	n/a		n/a		12 x 12	2.8kg per m²
							7.5 x 30	3.7kg per m²
							15 x 15	3.5kg per m²
							15 x 30	3.3kg per m²
San Genis	n/a	Superflexible gey	n/a	Rapid S1 Grey Adhesive	n/a		30 x 30	2kg per m²
St James							24 x 24	3kg per m²
Pre-sealed terracotta	n/a	Superflexible gey	n/a	Rapid S1 Grey Adhesive	n/a		30 x 30	2.5kg per m²
							15 x 30	3kg per m²
							20 x 20	2.4kg per m²
Handmade Classic	n/a	Superflexible gey	Superflexible gey	Rapid S1 Grey Adhesive	Superflexible gey		40 x 40	2.1kg per m²
							30 x 30	2.5kg per m²

						15 x 30	3kg per m <sup>2</sup>
						20 x 20	2.4kg per m <sup>2</sup>
						10 x 10	2.5kg per m <sup>2</sup>
Antiqued Terracotta	n/a	Superflexible gey	n/a	Superflexible gey	n/a	30 x 30	2kg per m <sup>2</sup>
						15 x 30	2.5kg per m <sup>2</sup>
Old Terracotta	n/a	Superflexible gey	n/a	Superflexible gey	n/a	22.5 x 22.5	3kg per m <sup>2</sup>

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

## Sealants and Finishes

Product	Preparatory Product	Impregnator / Sealant	Finishing Product	Day to Day Cleaner	Occasional / Intensive Cleaner	Comments
<b>Stone</b>	Mapei UltraCare Multicleaner on polished stone and Mapei UltraCare HD Cleaner on unpolished stone	Mapei UltraCare Intensifier S on polished stone and Mapei UltraCare Intensifier W on unpolished for an enhanced look. Mapei UltraCare Stain Protector W Plus for a natural look on all stone		Mapei UltraCare Multicleaner	Mapei UltraCare HD Cleaner for unpolished stone and Mapei UltraCare Multicleaner for polished stone	Ensure an initial wash is always undertaken after grouting to remove all grout and installation residues
<b>Slate</b>	Mapei UltraCare HD Cleaner	Mapei UltraCare Intensifier W for an enhanced look or Mapei UltraCare Stain Protector W for a natural look		Mapei UltraCare Multicleaner	Mapei UltraCare HD Cleaner	Ensure an initial wash is always undertaken after grouting to remove all grout and installation residues

<b>Terracotta</b>	Mapei UltraCare Keranet Easy or Mapei UltraCare Keranet	Mapei UltraCare Grout Release to pre seal and Mapei UltraCare Stain Protector W Plus		Mapei UltraCare Multicleaner	Mapei UltraCare HD Cleaner	Ensure an initial wash is always undertaken after grouting to remove all grout and installation residues
<b>Pre-Sealed Terracotta</b>	Not required	Not required		Mapei UltraCare Multicleaner	Mapei UltraCare HD Cleaner	Ensure an initial wash is always undertaken after grouting to remove all grout and installation residues
<b>Unglazed Porcelain</b>	Mapei UltraCare Keranet Easy or Mapei UltraCare Keranet	Pre seal with Mapei UltraCare Grout Release and seal grout with Mapei UltraCare Grout Protector Spray	Not required	Mapei UltraCare Multicleaner	Mapei UltraCare HD Cleaner	Unglazed porcelain tiles - Travertino, Moderna, Neutrals, Terrano, Siena, Arboreto, Sahara and Forma
<b>Glazed Porcelain</b>	Mapei UltraCare Keranet Easy or Mapei UltraCare Keranet for glazed porcelain. Crackle Glaze Mapei UltraCare Multicleaner	Not required for glazed porcelain. Pre seal with Mapei UltraCare Stain Protector S for Crackle glaze and again after grouting and initial wash.		Mapei UltraCare Multicleaner	Mapei UltraCare HD Cleaner	Glazed Porcelain Tiles - Sardinia, Verona, Sicilian, Umbria, Strata, Mono and Cotto
<b>Encaustic</b>	No longer in range					
<b>Geometric</b>	Mapei UltraCare Grout Release	Mapei UltraCare Stain Protector W Plus	Not required	Mapei UltraCare Multicleaner	Mapei UltraCare HD Cleaner	Ensure an initial wash is always undertaken after grouting to remove all grout and installation residues

<b>Glass</b>	Not required	Not required	Mapei UltraCare Grout Protector Spray	Mapei UltraCare Multicleaner	Mapei UltraCare HD Cleaner	Ensure an initial wash is always undertaken after grouting to remove all grout and installation residues
<b>Wall Tiles</b>	Not required	Not Required	Mapei UltraCare Grout Protector Spray	Mapei UltraCare Multicleaner	Mapei UltraCare HD Cleaner	Please see Wall tiling guide for more information.