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## LAYING WALL AND FLOOR TILES

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**CONTENTS**

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<b>1. PRELIMINARY STEPS</b>	<b>1</b>
Hygiene and safety measures	1
Prior considerations	1
The required materials	2
<b>2. LAYING THE TILES ON WALLS</b>	<b>3</b>
Preparing the worksite	3
Preparing the substrate and handling the tiles	3
Applying the cement-based adhesive	4
Laying slimmker tiles	5
Grouting the tiles	6
Cleaning the surface	6
<b>3. LAYING THE TILES ON FLOORS</b>	<b>7</b>
Preparing the worksite	7
Preparing the substrate where the tiles are to be laid	7
Handling the tiles	8
Applying the cement-based adhesive	8
Laying the tiles	9
Grouting the tiles	10
Important	10
Cleaning	10

## 1. PRELIMINARY STEPS

### HYGIENE AND SAFETY MEASURES

When rectified tiles are handled, all necessary safety precautions should be taken. For this purpose, use:



Protective gloves



Safety goggles



Mask



Vacuum cleaner

### PRIOR CONSIDERATIONS

#### Environmental conditions

Application temperature of cement-based adhesive: +5°C to +35°C.

Cement-based adhesive should not be used when there is a risk of frost or ice or during very hot weather.

Cement-based adhesive should not be used on rainy days either.

#### When floors are tiled, different types of joints should be taken into account.

Joints planned by the project engineer or architect:

- Structural joints, detailed in the building plans. They absorb movements by the building. These joints should be left in place and never covered over with tiles.
- Perimeter joints. They isolate the paved floor from other surfaces, such as the meeting point between two walls or the wall and floor, changes of plane, or meeting points with other types of materials. These joints should have a minimum width of 5 mm / 0.20" and they should be continuous. They help to offset any accumulated stress that might otherwise push up the tiles. They can be filled with a compressible material like expanded polystyrene or silicon or be concealed by a skirting.
- Movement, expansion or intermediate joints. They absorb movements due to changes in the temperature of the tiles, adhesive or substrate, preventing expansion or contraction movements. More joints will be needed for surfaces that might be subject to big changes in temperature or vibrations.

In floors subject to heavy or hard-wheeled traffic or over which heavy loads might be dragged, the layout of the joints should be planned so as to avoid them in transit areas. If this is not possible, metal-edged profiles should be used to conceal them. These joints must run through the depth of the tile, bonding adhesive and mortar screed and they should have a width of no less 5 mm / 0.20". They can be covered with profiles or filled with elastic material or grouting, providing that at least one month has elapsed since the mortar screed was laid.

## 1. PRELIMINARY STEPS

Tile joints around the tiles:

They should have a minimum width of 2 mm / 0.08". These joints absorb possible settlement movements and compensate for deviation tolerances in the length and width of the tiles.

### THE REQUIRED MATERIALS

- Spirit level.
- Straight edge at least 2 metres / 78.74" long.
- Primer and a roller. A coat of primer improves the cement-based adhesive's bonding capacity, particularly on non-porous surfaces.

Manufacturer	Product
Mapei	ECO PRIM GRIP
Kerakoll	KERAGRIP ECO

- Class C2 cement-based adhesive. Adhesives of this kind contain a high percentage of polymeric resins. Their main advantage is their high elasticity and strong bonding capacity. An appropriate adhesive for the type of tile and envisaged substrate must be used. Always follow the adhesive manufacturer's instructions.
- A tile levelling system for slimline tiles. When the cement-based adhesive sets, a certain lippage or unevenness in the tiles can occur. To ensure optimum end results, particularly with big formats, a tile levelling system must be used (such as the Rubí or Raimondi or Tuscan levelling systems).
- Spacers. Tiles should never be laid abutted, without a tile joint. The tile joints should never be less than 2 mm / 0.08" in width. The resulting gap should be filled with suitable grouting of a colour similar to the tiles. Always follow the grouting manufacturer's instructions.
- 2 notched trowels, one 10mm / 0.39"-12mm / 0.47" trowel for the substrate and another 3mm / 0.12" one for the tiles.
- In the case of large formats, an aluminium carrying frame with suction pads for handling the tiles.
- A continuous rim diamond tile saw (such as Super-Fine by Würth) for any necessary tile cuts when tiling complicated areas like light boxes, ventilation grills etc.

Never use a rubber mallet to tap the tiles into place. Use a rubber trowel.

## 2. LAYING THE TILES ON WALLS

### PREPARING THE WORKSITE

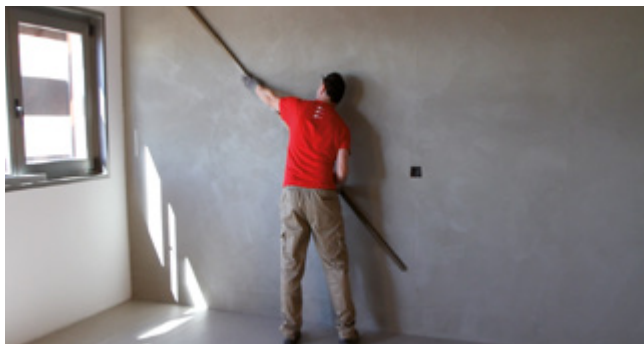
Find a place to work with enough room to move the tiles unhindered. Make sure that you have a flat solid bench to work on, either the same size or longer than the tile to be cut. Check that the work surface is level.



### PREPARING THE SUBSTRATE AND HANDLING THE TILES

Any remains of other materials, such as cement or plaster, should be removed. The substrate must be free from dust, grease and moisture. It must also be solid and crack-free. Check that it is flat.

In the case of large formats, wet the tile and suction pads on the carrying frame with a sponge and water to ensure a firmer grip, especially when the tiles have relief textures. Centre the carrying frame on the tile and press the suction cups down with your foot so that they stick firmly to it.



## 2. LAYING THE TILES ON WALLS

### APPLYING THE CEMENT-BASED ADHESIVE

The cement-based adhesive must be spread using the floating and buttering method over the substrate and underside of the tile.

Use a 3mm / 0.12" notched trowel to cover the entire underside of the tile evenly with cement-based adhesive, including the corners and edges.

Mark out the area where the tile will be laid on the wall to economize on the cement-based adhesive that is used. Use a 10mm / 0.39"-12mm / 0.47" notched trowel to spread the cement-based adhesive evenly over the substrate.

On the substrate and underside of the tile, apply the cement-based adhesive perpendicular to the long side of the tile so that any air below it can escape. Make sure that the coat of adhesive is always the same thickness.



## 2. LAYING THE TILES ON WALLS

### LAYING THE TILES

Once the cement-based adhesive has been applied, work can proceed on laying the tiles, remembering that a joint of at least 2 mm / 0.08" must be left between each tile. This distance can be ensured by using spacers. To lay large-format tiles, use a carrying frame handled by two workmen.

Tile levellers and spacers should be inserted between the tiles, pressing down on the former with the gun supplied with the levelling set. Several different levelling systems are available, such as Raimondi, Tile Level by Rubí, the Tuscan Levelling System or Planfix Italmond. The number of levellers used on each side of the tiles will depend on the tile format. Thanks to this kind of product, it is quicker and easier to lay tiles and all the tiles will be absolutely level.

After laying the tiles, tap them to remove any air bubbles in the cement-based adhesive.

Finally, with the aid of a spirit level, check that the tiles are level and leave them to dry as per the manufacturer's instructions.



## 2. LAYING THE TILES ON WALLS

### GROUTING THE TILES

Once the indicated drying time has elapsed, make sure that the joints are clean before grouting them with a suitable product in a similar colour to the tiles.



### CLEANING THE SURFACE

Comply with the necessary drying times indicated by the manufacturer before proceeding to clean off any grout residues, using a damp sponge.



### 3. LAYING THE TILES ON FLOORS

#### PREPARING THE WORKSITE

Find a place to work with enough room to move the tiles unhindered. Make sure that you have a flat solid bench to work on, either the same size or longer than the tile to be cut. Check that the work surface is level.



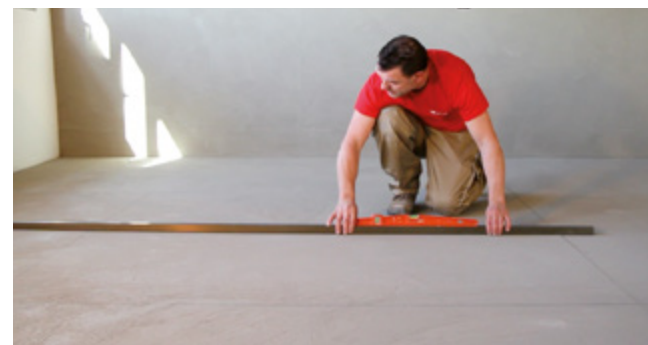
#### PREPARING THE SUBSTRATE WHERE THE TILES ARE TO BE LAID

There are many different kinds of substrates: concrete, conventional partition walls, existing tiled surfaces, natural stone, wood etc. Specific recommendations and a particular type of adhesive will apply in each case.

The substrate should be stable and flat, with no cracks. Any dust, lime, cement or dirt remains should be removed and the substrate should not be at all damp.

The flatness of the substrate should be checked, using a spirit level or similar. If necessary, use a suitable levelling product to level it.

The substrate should be given a coat of primer with a roller, whether it is a newly made or existing one.



### 3. LAYING THE TILES ON FLOORS

#### HANDLING THE TILES

In the case of large formats, wet the tile and suction pads on the carrying frame with a sponge and water to ensure a firmer grip, especially when the tiles have relief textures. Centre the carrying frame on the tile and press the suction cups down with your foot so that they stick firmly to it.



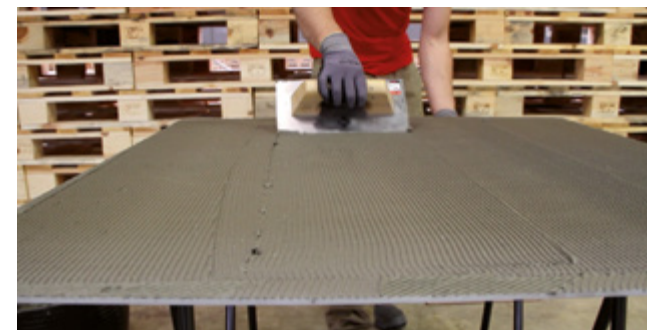
#### APPLYING THE CEMENT-BASED ADHESIVE

The floating and buttering method must be used, covering both the substrate and the underside of the tiles with the adhesive.

Spread the cement-based adhesive over the entire underside of the tiles, using a 3mm / 0.12" notched trowel, making sure that the corners and edges are covered.

Mark out the area of the floor where the tile will be laid to economize on the cement-based adhesive that is used. Use a 10 / 12 mm (0.39" / 0.47") notched trowel to spread the cement-based adhesive evenly over the substrate.

On the substrate and underside of the tile, apply the cement-based adhesive perpendicular to the long side of the tile so that any air below it can escape. Once the tiles have been laid, the final thickness of the adhesive should be about 3 / 4 mm (0.12 / 0.16").



### 3. LAYING THE TILES ON FLOORS

#### LAYING THE TILES

Once the cement-based adhesive has been applied, work can begin on laying the tiles, remembering that a joint of at least 2 mm / 0.08" must be left between each tile. This distance can be ensured by using spacers. To lay large-format tiles, use a carrying frame handled by two workmen.

After the drying time is over, remove the tile levellers with the aid of the sun supplied with the levelling set.

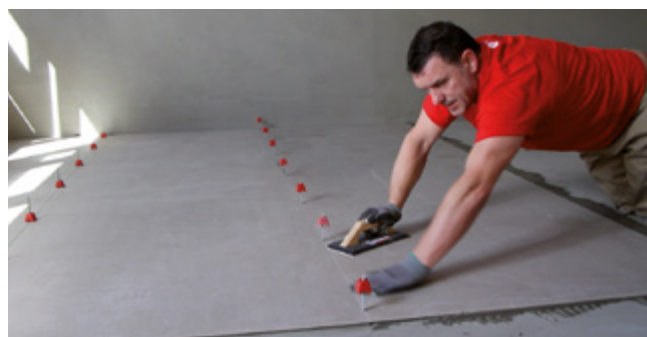
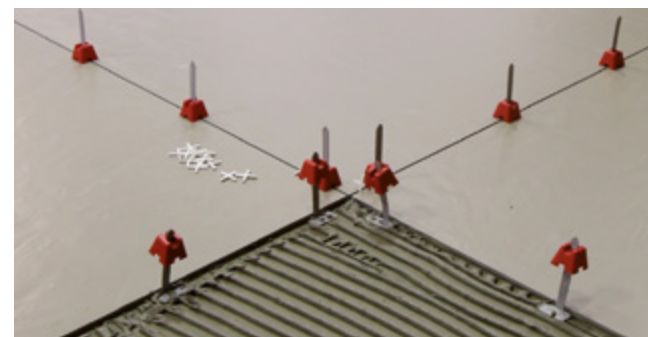
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System or Planfix Italmont. The number of levellers used on each side of the tiles will depend on the tile format. Thanks to this

kind of product, it is quicker and easier to lay tiles and all the tiles will be absolutely level.

After laying the tiles, tap them to remove any air bubbles in the cement-based adhesive.

Finally, with the aid of a spirit level, check that the tiles are level and leave them to dry as per the manufacturer's instructions. Do not tread on the tiles while they are drying.



### 3. LAYING THE TILES ON FLOORS

#### GROUTING THE TILES

After the tiles have been left to dry, as per the stipulated drying time, make sure that the tile joints are clean before grouting them with a suitable product in the same colour as the tiles.

#### IMPORTANT

When grouting **polished porcelain** tiles, do not use grouts coloured with "lamp black", since the pulverized coal used to formulate them will penetrate the surface pores of polished porcelain tiles, making it very hard to remove.

#### CLEANING

For more information on cleaning Slimtop Porcelain Panels, see our cleaning guide at <https://slimtop.com.au/home/techspecs/>