



# Tiling and grouting

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September 2014  
Replaces previous instructions of August 2012



These installation instructions are part of the following series from Casco

- 1 Preparing the surface
- 2 Casco Folie - Installation instructions
- 3 Casco Rollat - Installation instructions
- 4 Tiling and grouting

# Installing ceramic tiles

- Select tile adhesive with care, as this will determine the quality of your work, giving a durable construction and avoiding complaints.
- A coat of conventional tile adhesive must not exceed 2/3 of the thickness of the tile. If a thicker layer is required, the substrate must be filled first.
- Use suitable tools. Once more, this will determine the final result and quality of the work.
- Plan how to cut the tiles. Think in terms of symmetry and having partial tiles where they will be least visible.

## 1. Choose a tile adhesive to match the tile and its substrate

The type of adhesive you should choose will depend on the tile and its substrate. But there are other considerations too, such as whether installation is out of doors, or whether the tiles are being laid in a pattern, see tips and table.

### Colour-sensitive tiles

Choose white adhesive so the colour will not show through. Ensure you cover the tiles fully and evenly.

### Heavy/large wall tiles

Here it is important to choose the right tile adhesive comb and to ensure good coverage.

### Pattern-laying

Where installation requires greater precision, choose a tile adhesive with an extra long open assembly time.

### Installation on chipboard

Tiles can be mounted on chipboard partitions in dry rooms. For floors and wet rooms, the chipboard must first be filled and treated with a tanking membrane. Prior to filling, check the joist gaps, etc. in "Preparing substrates/suspended floors".

### Sensitive tiles

For example, composite and thin natural stone. Pre-test 1-3 days in advance to check for any show-through or deformation.

### Outdoor installation

For this, the tiles need to be double-glued, i.e. the adhesive is combed on both the substrate and the tile, with 100% coverage.

### Installation on top of existing tiles

Tile on tile may only be done indoors. Existing tiles must have good adhesion to the substrate and be well-cleaned. If there is no damp proofing, a suitable tanking membrane must be installed first. For wet rooms, contact Technical Service.

### Installation of large formats (larger than 300 x 300 mm)

For this, liquid tile adhesive (full-coverage) is best, due to reduced risk of loose tiles.

AREAS OF APPLICATION	MULTIFIX PREMIUM	MULTIFIX RAPID	MULTIFIX WHITE	MULTIFIX	KAKELLIM	FLOORFLEX PREMIUM
Indoor and outdoor use						1
Underfloor heating						1
Dry rooms					2	1
Wet rooms (residential)						1
Wet rooms (public)						1
Ceramic granite						1
Rapid grouting						
Swimming pools						
Tile on tile (indoor)					2	1
Tile sensitive to discoloration or deformation		3				

1 Floor only

2 Wall only

3 Mainly limestone and other sensitive stones



Best choice



Possible



Not possible



## 2. Select tile adhesive comb

The pattern on the rear of the tile will determine which tile adhesive comb to use and thus consumption of tile adhesive.

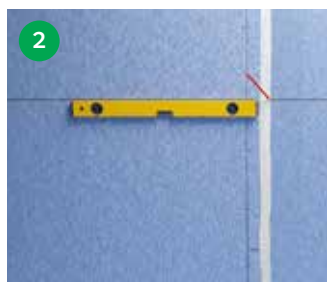
- Tiles with smooth rear surface from 1.4 kg/m<sup>2</sup>.  
Use a 6 x 6 mm tile adhesive comb.
- Tiles with fluted rear surface from 2 kg/m<sup>2</sup>.  
Use a 8 x 8 mm tile adhesive comb.
- Tiles with studded rear surface from 2.6 kg/m<sup>2</sup>.  
Use a 10 x 10 mm tile adhesive comb.
- Large format tiles from 3.5 kg/m<sup>2</sup>.  
Use a round-tooth tile adhesive comb.



## 3. Installation instructions



1 Measure the room for optimum tile cutting. Avoid small partial tiles. If possible, mount partial tiles where they will not be directly visible.



2 Establish a level line in the room and mark the place you wish to start. Sometimes a batten is handy as an installation aid. Mix the adhesive in the correct mixing ratio, see information on the pack.



3 Comb out the tile adhesive. Mount the tiles before the tile adhesive on the substrate has dried, to ensure the tiles will hold properly. Avoid grouting the corners, as these need to be treated with sealant.



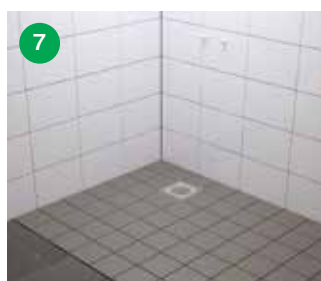
4 Press the tile down with a slight twist. Use tile spacers, mason line, etc., for an extra neat and even effect. Check that the rear is covered with adhesive.



5 If you choose to mount a tanking membrane on both walls and floors before installing tiles, it is important to avoid holding the membrane, e.g. when laying the floor.



6 Time for the floor. Here too, the rear of the tile needs to be fully covered with adhesive. Otherwise there is a risk of tiles coming loose or cracking.



7 When all tiles are in place, the adhesive must be allowed to dry thoroughly before grouting.

# Grouting

- Select the grout according to the colour and type of tile.
- Grout a test area to check that the selected grout matches the tile for colour, hardening/absorption and the prevailing climate. Climate and hardening will have an effect on how the joint dries and thus on the finished result.
- Take your time when grouting. Apart from neat tile positioning, the grouting is the most visible part of the finished work.

## 1. Apply the grout



Apply the grout diagonally across the tiles with a grouting float/squeegee. Make sure the joints are generously filled. Mix the grout in the correct mixing ratio and make sure the colour pigment is mixed in. Allow the grout to rest for about 5 min. and then whip up again.



Avoid leaving grout on the tiles as it will easily become too hard to remove. Do not grout too large an area at a time.

## 2. Clean off the grout



Clean off the grout with a damp sponge before it starts to dry (approx. 10-30 min.) Clean the tiles with a damp sponge. Clean diagonally to avoid hollowing out the joints. Remember to allow the grout to become finger-dry before cleaning the tiles for the first time.



Repeat as necessary, with frequent changes of water. Use less water for dark colours. Finish off by polishing with a dry cloth or similar.

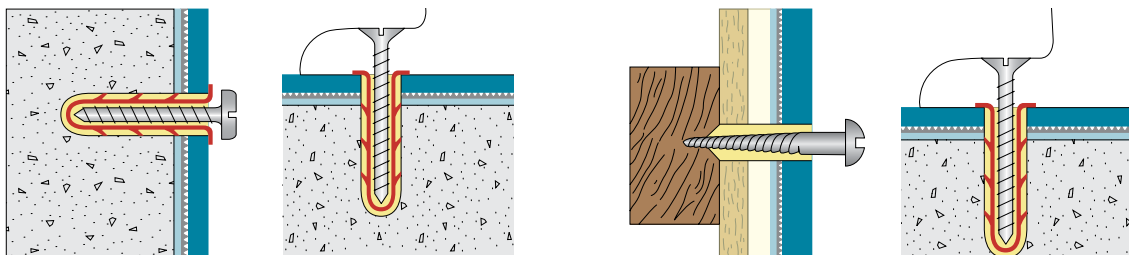
### 3. Grout the corners and angles with sealant



Apply sealant to the corners and the floor/wall angle to create a flexible joint. Use Sanitary Silicon or AquaSeal, while masking tape will ensure your edges

are straight. Smooth the sealant with a dampened smoothing tool or finger. For dampening, use water with a drop of washing-up liquid/soap.

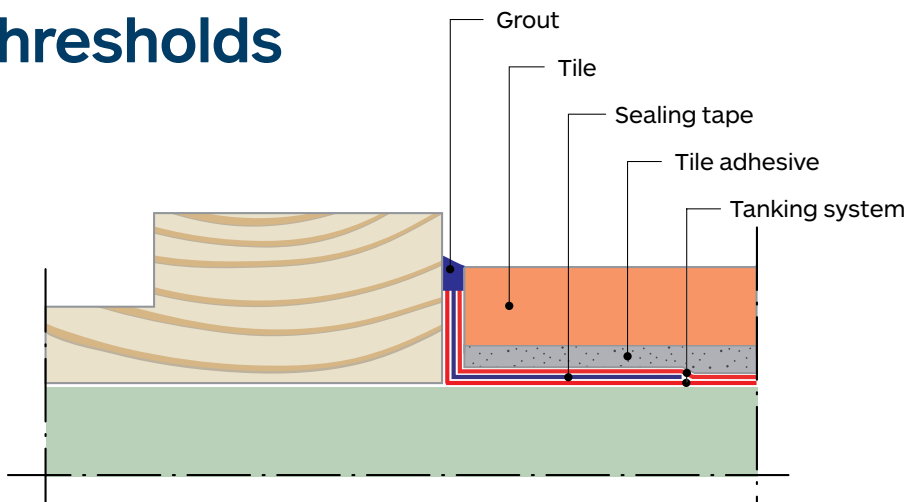
### 4. Seal fixings in the wall and floor



In concrete: Apply Sanitary Silicon or AquaSeal to the hole, both before inserting the wall plug and before tightening the screw.

In panel construction: Apply Sanitary Silicon or AquaSeal before mounting the screw. Avoid drilling holes or inserting screws in wet zone 1. Instead use assembly mastic such as Casco SuperFix or XtremFix for mounting.

### 5. Seal thresholds

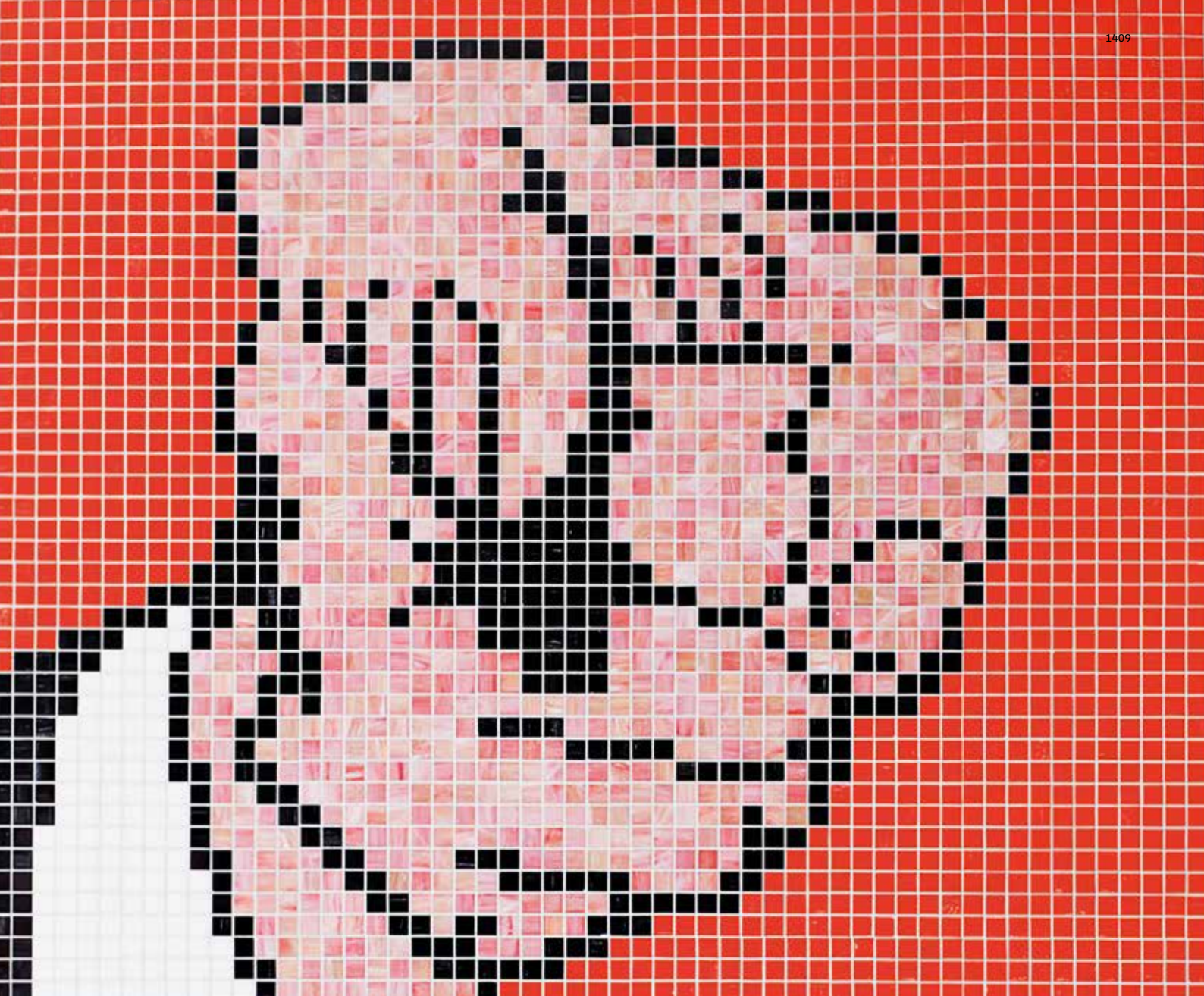




## Obtaining an attractive colour in the grout

- The grout colour is affected by:
  - The time of production and the raw materials.
  - The mixing ratio. Take care when mixing and see the information on the pack.
  - Do not mix for too short a time, as the pigment will not be sufficiently mixed in.
  - The water absorption of the tiles.
  - Climatic conditions Remember to ensure even conditions in the room, avoiding direct sunlight and draughts.
  - Where there is a change of substrate.
- If there are any traces of tile adhesive present, the joints will harden at different rates.
- The best results are obtained by using bags with the same manufacturing/batch numbers.
- No bags with the same manufacturing/batch numbers are available? Mix the powders from the different bags and then add the water.
- For cleaning down, use as little water as possible. And the water must be clean. Using a cellulose sponge makes it easier to minimise the amount of water.
- Do not clean down too early. You risk making the colour pigment disappear into the grout. Extra important for dark colours.
- In the case of dark colours, it is extra important to mix the grout according to the instructions. Clean all the joints with the same amount of water, otherwise the grout can easily become blotchy.





## Getting the best grouting results



- Never add more water to grout which has started to harden in the bucket.
- Dampen unglazed tiles before grouting.
- Take care when grouting tiles which are matte and porous or ceramic granite tiles. These have a tendency to absorb colour pigment in the grout.
- For maximum durability, keep the joints damp, e.g. with a flower water spray, for the first 1-2 days.
- Wait at least three days before subjecting the joint to a heavy load.
- Wait at least seven days before using a cleaning agent.



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