

## Impervious tiles or substrates

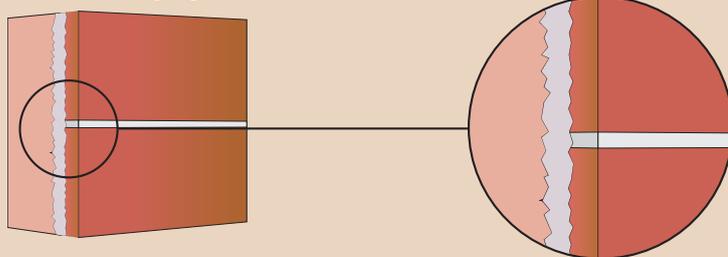
When tiling an area that is already tiled or painted it is often necessary to invest considerable time in stripping and then repairing the substrate. In

certain situations it is much more straightforward to over tile the existing layer.

However, this requires careful consideration and extra properties from the adhesive.

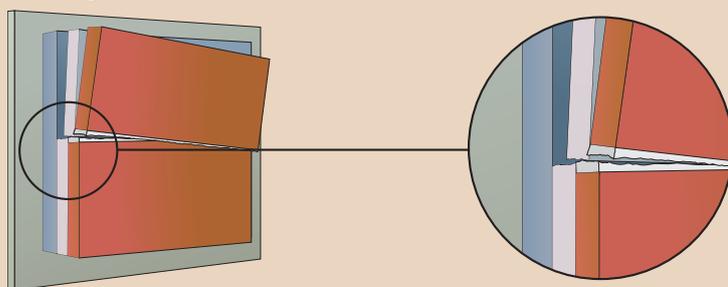
### 1 Standard cement-based tile adhesives won't stick to a completely smooth surface

Mechanical keying action



Standard cement-based adhesives rely on a mechanical keying action to bond onto the substrate. The wet cement engages physically with small irregularities, pores etc in the surface and uses this to form a strong bond.

Poor key onto tile face



When the surface is very smooth this grip is much weaker resulting in tiles de-bonding.

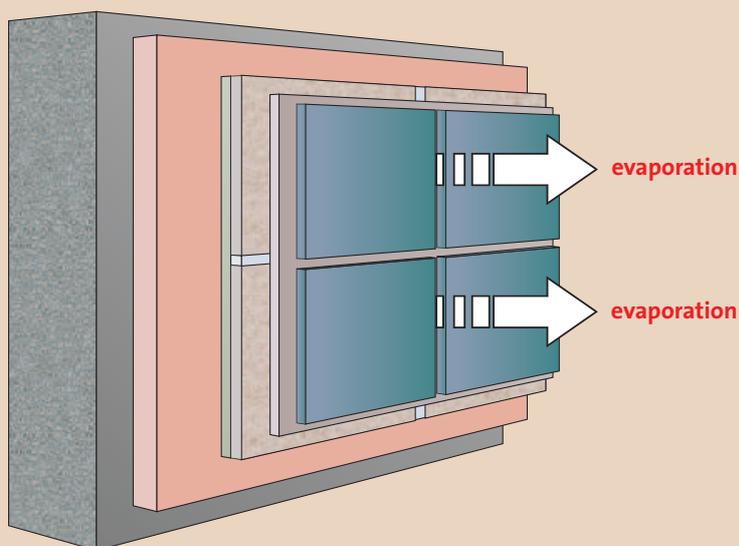
Existing ceramic tiles, existing vinyl tiles and paint can all present a surface that is closed in this way.

The back of very low porosity tiles, such as porcelain, is also closed.

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### 2 These types of surfaces are largely impervious to water and this results in a longer time delay before the water from the adhesive can escape the system

Overtiled wall



Ready-mixed adhesives are dispersions of polymers and inert fillers in water and do not gain strength until the majority of the water has dried out. With large tiles on impervious surfaces, this can take weeks.

At lower temperatures, even standard cement-based products can take several days to set and dry.

The other complication from slow extended drying, is that if the joints are grouted before the drying is complete, the water will be trapped. As it subsequently permeates through the grout it will bring dissolved salts from the adhesive or grout and cause a white deposit on the surface of the grout, known as *efflorescence*. This can happen sometimes anyway, but the chances are increased the more water is trapped.



# Tile directly onto well-adhered ceramic, vinyl tiles or paint or with low-porosity tiles

Highly polymer-modified adhesives achieve a sound chemical bond onto impervious surfaces overcoming the

need for suction and mechanical keying.

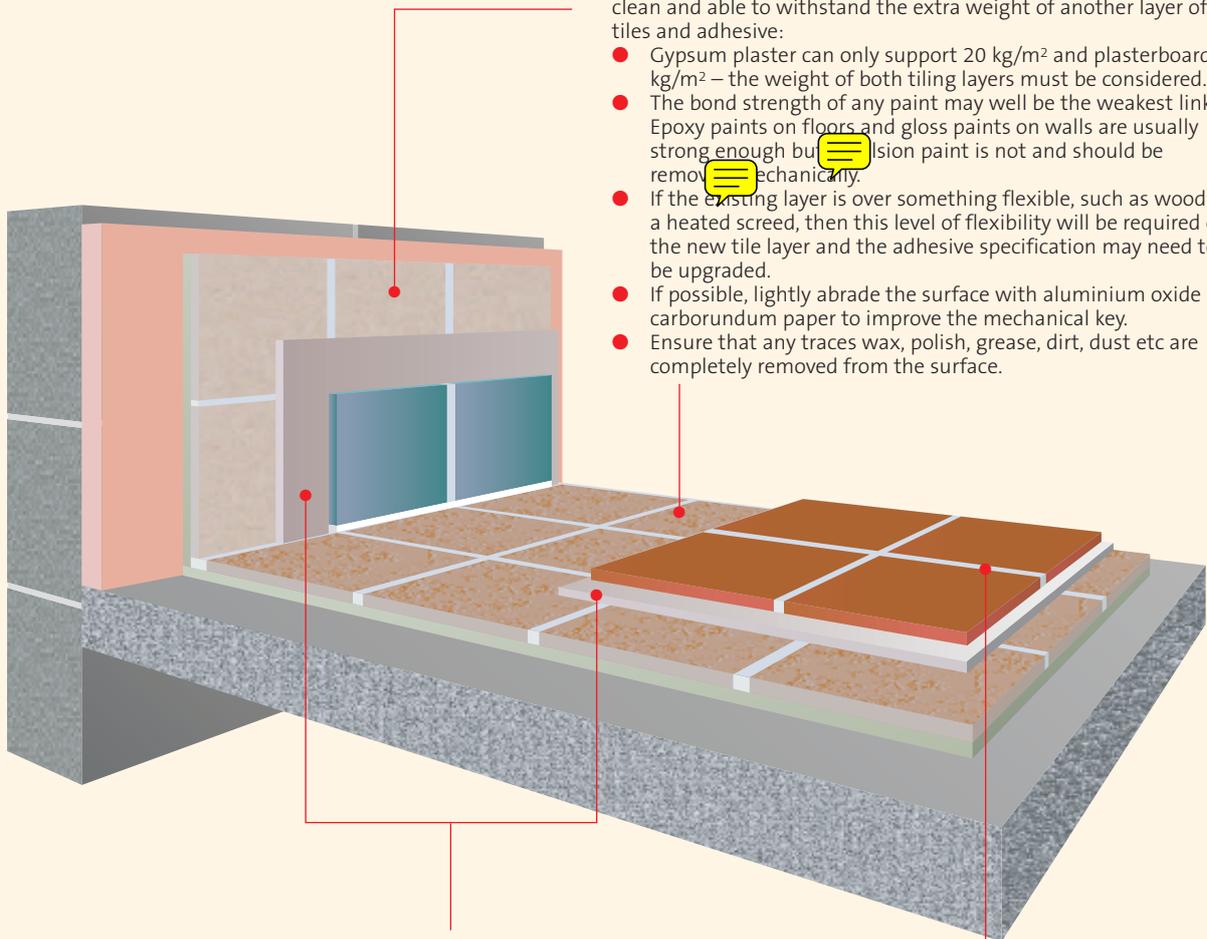
## Products required

- weber.set rapid  (walls or floors)
- weber.set rapid **SPF** (heated floors)
- weber.set rapid flex (wooden floors)

### Stage 1: Assess and prepare the floor/wall

It is essential that the layer that is to be tiled over is completely clean and able to withstand the extra weight of another layer of tiles and adhesive:

- Gypsum plaster can only support 20 kg/m<sup>2</sup> and plasterboard 32 kg/m<sup>2</sup> – the weight of both tiling layers must be considered.
- The bond strength of any paint may well be the weakest link. Epoxy paints on floors and gloss paints on walls are usually strong enough but  ision paint is not and should be removed mechanically.
- If the existing layer is over something flexible, such as wood or a heated screed, then this level of flexibility will be required of the new tile layer and the adhesive specification may need to be upgraded.
- If possible, lightly abrade the surface with aluminium oxide or carborundum paper to improve the mechanical key.
- Ensure that any traces wax, polish, grease, dirt, dust etc are completely removed from the surface.



### Stage 2: Fix the tiles

Fix the tiles with a polymer-modified adhesive:

- For solid walls and floors use **weber.set rapid plus**
- For heated floors use **weber.set rapid SPF**
- For wooden floors use **weber.set rapid flex**

A solid bed of adhesive is recommended to maximize the strength of the bond.



### Stage 3: Grout

Leave the adhesive longer than normal before grouting to allow the water to escape the system. This will be longer for larger tiles. Grout with a grout suitable for the area concerned. Use **weber SL450** flexible sealant for the perimeter movement joints or **stoneset flexible NC sealant** if tiling with natural stone.

