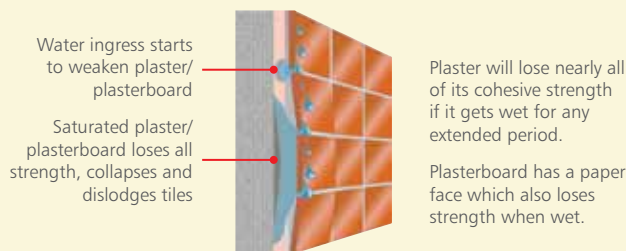


## PROBLEM 1

### Protecting a water-sensitive substrate

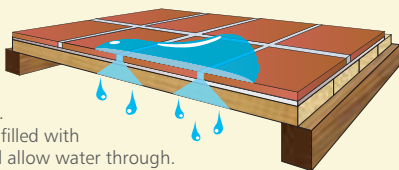
Tiles are often specified for areas that are likely to be subjected to high humidity or become wet such as kitchens, bathrooms and showers. Whilst the tiles themselves are unaffected by water it is very difficult to ensure a complete seal at the grout joints. The tiling layer should not be considered to be a waterproofing layer.

#### 1 Some tiling substrates are affected by water



#### 2 Cement-based grouts are not impervious to water

Cement-based grouts, whilst being unaffected by water once set, are porous and will therefore allow water to seep through. If the joint is not completely filled with grout then of course this will allow water through.

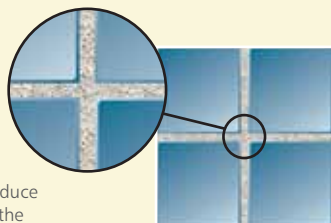


#### 3 Cement-based grouts are vulnerable to erosion and damaged over time

Normal wear and tear from traffic and cleaning will erode the grout over time.

The action of various chemicals, such as cleaning liquids can gradually weaken the grout.

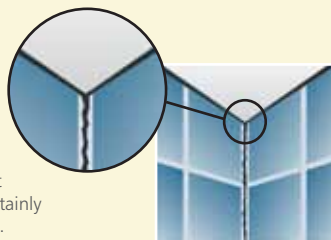
Either or both of these actions can reduce the ability of the grout joint to resist the passage of water.



#### 4 Movement cracks

Grout joints in corners between tiled surfaces and at junctions between dissimilar backgrounds should be filled with a flexible sealant to allow some movement between surfaces.

These critical joints are often filled with the same grout used for the rest of the area. The grout will almost certainly crack in time allowing water through.



## SOLUTION 1

### Using weber.sys protect tanking system

Water-sensitive substrates such as plywood, plaster and plasterboard can be protected from damage by any water that penetrates the tiling layer, by the application of a surface waterproofing layer, known as a **tanking system**. The most likely places for leaks are in internal corners and around pipes, plugholes, trim etc, so these areas must be treated with care.

#### Stage 1: Assess and prepare the surface

The surface must be clean, dry, sound and rigid. Existing surface layers (such as paint, tiles etc.) must be well adhered to a sound substrate. The surface to be coated must be free of wax and grease, and any dirt or dust must be washed off and allowed to dry. Prime the substrate with **weber PR360** and allow to dry.

#### Stage 2: Protect critical areas with weber.sys protect tape

Apply **weber.sys protect** into the vertical and horizontal corners, into small cracks (less than 2mm wide) and along any joints between boards with a short-bristle brush. Apply it liberally to the base of any protruding pipes and over a square area within 100mm of the pipe. Cut a length of joint tape to fit and bed it into the **weber.sys protect**. Corners should be taped in all three directions to ensure a secure seal. For sealing around pipes, cut a cross in the tape with a knife.

#### Stage 3 & 4: Apply first & second coats of weber.sys protect

Apply a first coat of **weber.sys protect** with a roller or brush and allow to dry. Apply a second coat of **weber.sys protect** rolling/brushing at 90° to the direction of the first coat, to ensure that the surface is completely protected.

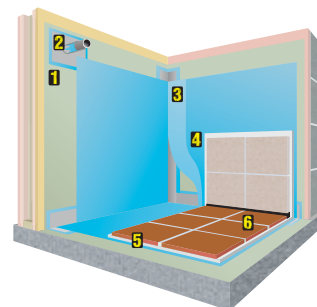
#### Stage 5: Fix the tiles

Leave **weber.sys protect** until dry, then fix tiles using a polymer-modified, cement-based adhesive such as **weber.set plus**. A flexible adhesive will be needed on substrates with some movement.

#### Stage 6: Grout the tile joints

Allow the adhesive to fully dry, normally at least 24 hours (less for rapid adhesives) and then fill the joints with an appropriate grout. **weber.joint pro** offers increased resistance to water, soiling and limited movement. **weber.joint epoxy** is specified where chemical resistance or complete impermeability is required.

Fill the joints around the perimeter and in all horizontal and vertical internal corners with **weber.joint silicone** sealant to allow for movement. Allow the grout and sealant to fully cure before using the installation.



Priming:  
**weber PR360**

Tanking:  
**weber.sys protect**

Tiling:  
**weber.set plus**

Grouting:  
**weber.joint pro** or **weber.joint epoxy**  
& **weber.joint silicone**

For detailed instructions, please refer to the relevant product data sheet. For further information, please contact our Technical Helpline on 01525 722110 or [www.loveweber.co.uk](http://www.loveweber.co.uk)