

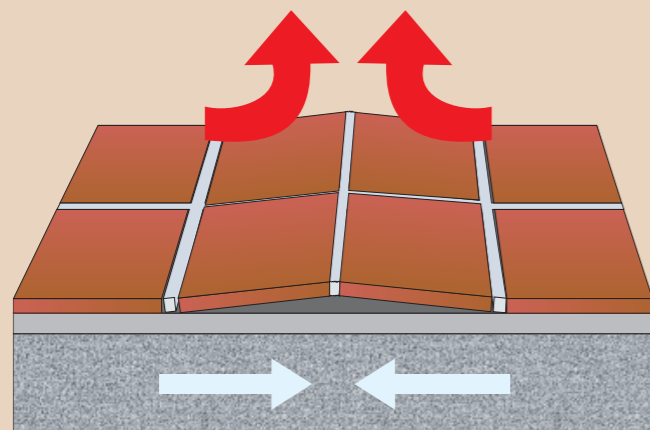
Tiling with an uncoupling membrane

The use of uncoupling membranes has become more common in recent years due to the variety of problems that it can overcome. There are many

different types of uncoupling membranes available which either have added features or should be used for certain situations so it is always

important to speak to the supplier before commencing.

1 Shrinkage/expansion of a substrate

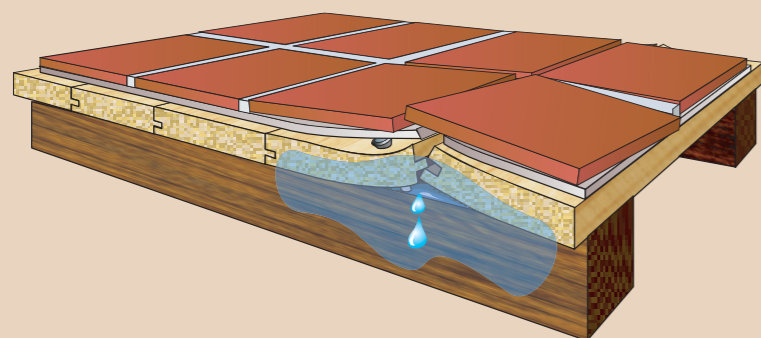


Newly-laid screeds and concrete contain relatively large amounts of water and as this evaporates, the screed will shrink to compensate for the resulting volume loss.

All substrates will shrink and expand naturally due to humidity and/or temperature fluctuation.

Any movement, whether shrinkage or expansion will cause stresses to form between the substrate and the tiling layer as both move at a different rate. These stresses can be enough to either fracture or delaminate the tiles.

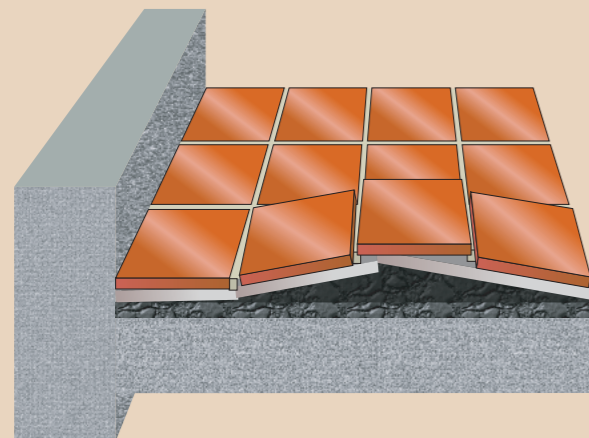
2 Protecting water-sensitive substrates



Nearly all substrates are affected by water in some way but certain substrates such as plaster, anhydrite or plasterboard will lose nearly all its cohesive strength if it gets wet.

Most wooden substrates, when wet, will expand/warp causing large stresses to form between the substrate and the tile, which can cause tiles to fracture or delaminate. Wooden substrates will also become weak and rot if continually wet.

3 Difficult substrates



Certain substrates can be very difficult to reliably tile in a conventional manner. Existing asphalt contains oils which make it very hard to adhere to, whilst metal substrates are very smooth allowing virtually no mechanical key.

Using uncoupling membranes

Uncoupling membranes are usually used to uncouple the tiling layer from the substrate and thus reduce the stresses built up between substrate and tile. Modern uncoupling

membranes can also offer more features including waterproofing and channels for evaporation or heat exchange. It is advised to contact the supplier of the membrane prior to

application to make sure that the correct uncoupling membrane/technique is being used.

Products required

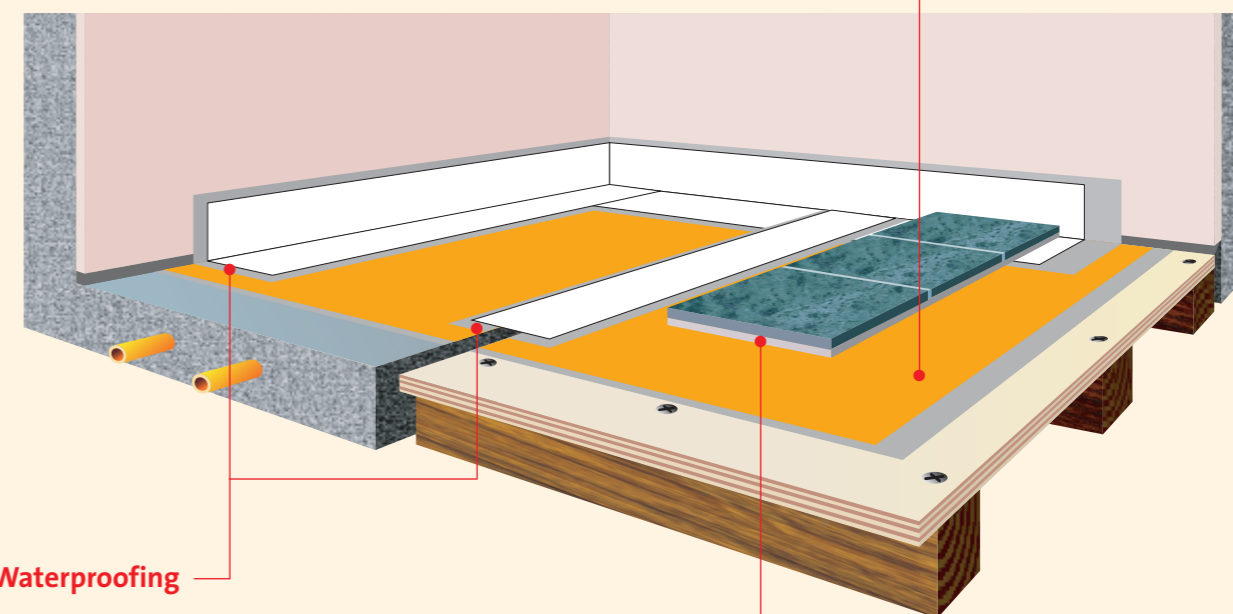
weber.set SPF or **weber.set rapid SPF**
weber.joint wide flex
weber.joint pro
weber.joint silicone

1: Preparation

The substrate must be clean and free from dust, grease etc. Any irregularities in the surface should be corrected so that the surface is level and without voids. Existing old asphalt should be lightly sanded to roughen the surface and then wiped to remove the dust. The membrane should be spread out on the floor, cut to size (allow expansion joints at perimeter) and then rolled back up.

2: Application of an uncoupling membrane

weber.set SPF should be combed onto the substrate using a 3 x 3 mm notched trowel. The membrane should then be pressed into the adhesive bed using a rubber float in the direction the membrane is being laid to prevent air pockets forming. Adjoining sheets should be carefully abutted. All existing movement joints must be followed through the substrate and tiling layer. Extra movement joints should be included on large areas as per BS 5385.



3: Waterproofing

If the membrane is also to be used as a waterproofing layer, the joints between sheets, perimeter joints and movement joints need to be sealed. Spread a thin layer of **weber.set SPF** across the joints and then bed a flexible layer of membrane into the adhesive. The membrane must overlap the joint by at least 50mm. For perimeter joints, the same method applies but care must be taken not to fill the movement joints at the edge of the sheets with adhesive.

4: Fixing the tiles

Fix the tiles with **weber.set SPF** or **weber.set rapid SPF**. If the uncoupling membrane has cavities, fill these first with the flat edge of a trowel before spreading adhesive onto the membrane with a notched trowel. It is important that the tiles are solidly bedded with no voids in the adhesive bed. Grout the tiles with **weber.joint wide flex** or **weber.joint pro**. Use **weber.joint silicone** for the perimeter movement joints.

