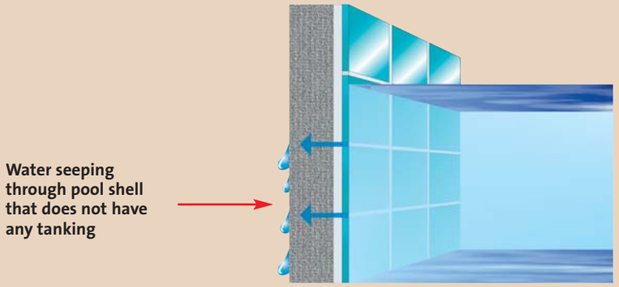
Problem 15

Tiling in swimming pools

Swimming and other types of pools are the ultimate wet areas for tiling. It is important to specify the appropriate materials to achieve a durable installation. Once filled, it is not easy to make significant repairs without taking them out of service for long periods.

1 Immersion in water requires adhesive unaffected by water

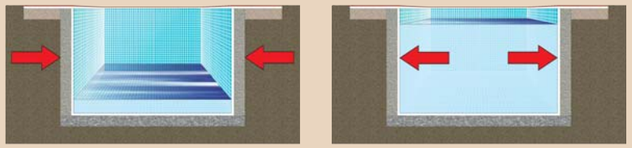


In a pool water is almost certain to penetrate the grout joints. Cementitious grouts are porous and allow water to soak through. Even when an epoxide resin grout is used, it cannot be guaranteed that all of the joints are perfectly filled.

The consequence is that:

- The bond strength of the tile adhesive must not be affected by continuous immersion in water
- The pool must have a waterproof shell or layer behind the tiles (see *Problem/Solution 14*)

2 Initial movement due to weight of water and heat



The pool will be tiled when it is empty. Once the pool is filled there will be some movement due to the effect of water pressure on the walls and the overall weight of water in the pool.

After filling, the water will be brought up to normal pool temperature and this will cause some further movements in the overall structure.

3 The affect of pool chemistry on the grout

Chemicals added to the pool water tend to degrade cement-based grouts.

This is minimised if they are maintained at the ideal levels but the choice of grout and its chemical resistance are important factors for the durability of the installation.

4 Certain areas are exposed to additional wear and tear

Certain parts of the pool are exposed to more aggressive conditions than others.

The grout on the pool sides at the waterline may be exposed to greater erosion from water movement.

Pool surrounds may undergo stringent and frequent cleaning regimes.

Walls in rooms containing pools will be exposed to constantly high humidity and also need to have good water resistance.

Solution 15

Use appropriate adhesive and grout

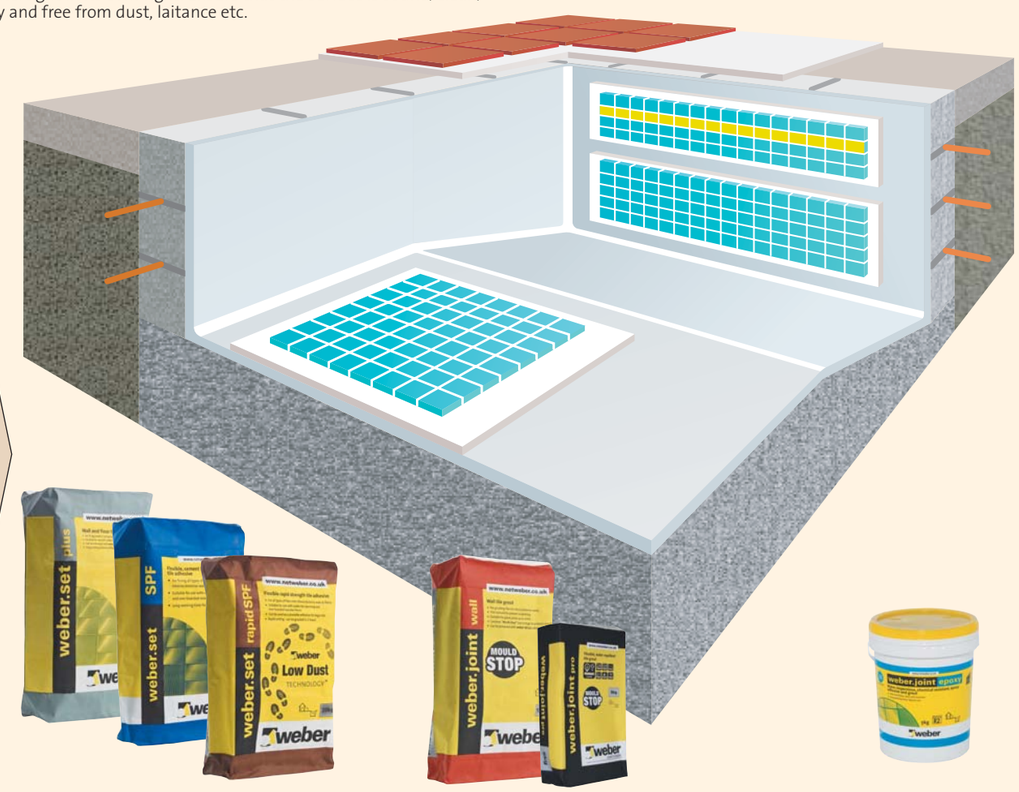
There are several solutions depending on the level of durability required and these are outlined as a hierarchy below. Of course there are intermediate levels, for example using **weber.set plus** to fix the tiles and **weber.joint epoxy** to grout.

Products required

weber.set plus, weber.set SPF or **weber.set rapid SPF**
weber.joint wall or **weber.joint pro**
weber.joint epoxy

Preparation

The pool shell must be allowed to cure for at least 6 weeks before rendering/screeding and then at least another 3 weeks must be allowed before commencing tiling. The pool shell must be watertight in its own right. Ensure that the surface is sound, clean, dry and free from dust, laitance etc.



Standard solution

Fix the tiles with **weber.set plus** (white).

Allow the adhesive to cure for at least 3 days, then grout with **weber.joint wall**.

Improved-resistance solution

Fix the tiles with **weber.set SPF** (white) or **weber.set rapid SPF** (white).

Allow the adhesive to cure for at least 3 days, then grout with **weber.joint pro**.

High-resistance solution

Fix the tiles with **weber.joint epoxy**.

Allow the adhesive to cure for at least 3 days, then grout with **weber.joint epoxy**.

When fixing sheets of mosaic tiles, it is also possible to fix and grout simultaneously.

Putting the pool into service

Allow at least 3 weeks after finishing grouting before filling the pool. Fill the pool at a rate of no more than 0.75 m of depth per day, to allow any movement to take place slowly. Bring the pool gradually up to temperature, at a rate of 0.25°C per hour.

For detailed instructions, please refer to the relevant product data sheet. For further information, please contact our Technical Helpline on 01525 722100.