

Tiling in Swimming Pools – Construction Drying Times and Pool Filling and Emptying Rates

INTRODUCTION

Stresses can be created in tiling as a result of movement because of factors such as drying shrinkage and moisture movement in the background and thermal and moisture changes in the tiling. These stresses, if not controlled appropriately, could lead to loss of adhesion, bulging or cracking of the tile finish.

As with any new concrete construction, it is important to ensure that enough time is allowed for the drying/ shrinkage of the concrete to occur. This provides a stronger and more stable substrate to allow for the application of a rigid tiled finish.

Once constructed, the concrete pool shell should be tested and proved to be watertight prior to the application of tiles. This is irrespective of whether the pool shell is constructed to a high degree of dimensional accuracy to be able to tile directly or where the application of cement: sand render and screeds are applied.

Follow completion of tiling, it is also important to ensure that the pool is filled slowly, and that initial heating of the pool water is carefully controlled. This is in order to minimise the risk of further stresses developing as a result of loading and thermal changes arising from the impact of mains water.

The following advice can also be found in BS 5485: Part 4: 2015 Wall and floor tiling – Part 4: Design and installation of ceramic and mosaic tiling in specific conditions – Code of practice and The Tile Association (TTA) technical document Design and Construction Process for Swimming Pools.

CONSTRUCTION DRYING TIMES

BS 5385-4: 2015 advises that the following minimum time intervals should be allowed for the following processes:

1. The curing of the pool shell and the application of rendering/ screeding – 6 weeks
2. From completion of rendering/ screeding to the fixing of tiles – 3 weeks
3. Completion of fixing and the commencement of grouting – 3 days
4. From completion of grouting and movement joints to the filling of the pool – 3 weeks

This standard advises; *“Under no circumstances should these time intervals be reduced. In wet weather or poor drying conditions, a longer period should be allowed”.*

POOL FILLING & EMPTYING RATES

The maximum filling or emptying rate should be controlled so that the water level rises or falls about 750 mm every 24 hours.

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HEATING OF POOL WATER

The recommended heating rate for pool water is 0.25°C per hour.

As the temperature of Leisure Pool is maintained typically between 28°C & 30°C, the pool water should take approximately 4.5 to 5 days to reach its operating temperature.

TECHNICAL ADVISORY SERVICE

For free expert guidance on the use of BAL products, or any aspect of ceramic tiling with BAL products, contact the BAL TECHNICAL ADVISORY SERVICE on 01782 591120.

THE BAL 25 YEAR GUARANTEE

BAL products are supplied with a 25-year product guarantee. For further details and/or copies please contact the Company's marketing department.

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