



## Pool Types – Concrete and Liner (C5)

### Concrete Swimming Pools

Concrete is the traditional pool construction material and pools made from this material can be divided into two main categories, either of which may be appropriate depending on site conditions, the cost and life expectancy of the finished product.

### Sprayed Concrete

This involves spraying wet concrete onto a pre-formed cage of steel reinforcement. The two most common methods are known as Guniting, where dry mixed aggregate and cement are pumped to the spray nozzle where water is added, and Shotcrete where the wet concrete is pre-mixed before being fed to the spray head.

Both methods result in a structure which offers maximum strength for the minimum amount of concrete and both are particularly suitable for complex shape 'free form' pools. These structures enable pools to be constructed without any sharp angles where the pool walls meet the floor, giving something of a boat like shape to the pool shell.

As this is a lightweight construction method, care is required at the design stage to ensure that the structure is of an appropriate weight for the site to prevent flotation. Construction of a pool shell using this method is relatively quick with the added advantage that the concrete can be pumped some distance should site access be restricted.



### Shuttered Concrete

This method of construction is based on a poured concrete slab or floor with the pool walls poured between retaining panels - the shuttering.

Temporary shuttering of timber or steel is removed once the poured concrete has set, leaving the concrete wall free standing. This method is particularly suitable for larger commercial contracts.

Permanent shuttering in the form of two skins of concrete blocks will often be used for domestic installations. Wet concrete is pumped between the skins, filling the cavity and providing a good base for the internal finish. Rectangles and simple shapes can be built using this method which requires less specialised plant and equipment than sprayed concrete.

### Internal Finishes

Sprayed or shuttered concrete pool shells are normally rendered internally with sand and cement to provide a smooth and uniform waterproof lining, ready to receive a decorative finish of tiles, mosaic or terrazzo.

Blockwork shells must be finished with a flexible waterproof lining which can accommodate minor structural movement.



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## Liner Pools

The advent of the liner pool some years ago, opened up the possibility of pool ownership to a far greater section of the leisure seeking consumer market.

Advances in plastics technology has resulted in highly efficient and economical pools constructed on the liner principle, which not only rival their concrete cousins in terms of appearance but can offer major savings in construction costs.

A liner pool is built by excavating a hole, fitting a frame or shell and finishing with a high-quality flexible PVC membrane – the liner.

Unlike concrete pools, it is the lining which gives the pool its water retaining properties while the shell provides the structure to which it is fitted. The shell can be made out of various materials from concrete block to steel, aluminium, fibreglass or plastic panels.

Panel systems can be particularly attractive as they offer the possibility of incorporating different heights and curves into the pool by using supporting frames and braces. The liner itself can be produced in a number of different colours and patterns including mock tiling or mosaic and such are the advances in materials and techniques that many people cannot tell the difference between a liner and a tiled pool.



On average, a liner pool takes only about four weeks to install and, given the appropriate skills and experience, lends itself to the self-build approach.

Once completed, a PVC liner is virtually maintenance free, generally only requiring a periodic clean at the water line with a proprietary pool cleaner. The life expectancy of a pool liner is usually quoted as 10 to 12 years, although this can vary greatly depending on site conditions and use. When a replacement finally becomes necessary you can ring the changes with a completely new pattern, or colour, if required.

To help make a decision ask your SPATA contractor to put you in touch with the owner of a liner pool to see for yourself the high standard of construction and finish available with this cost-effective method.