

## INFO SHEET

*Performance Through  
Technology and Service*

# Discussion about Fibreglass Pools And Resurfacing.

There are many pools constructed with fibreglass. These come in a range of shapes and sizes. They have been available since the 1960's. Fibreglass pools are constructed with layers of fibre glass strands (often called matting or chopped strand mat, which is white in colour and extremely thin) and a resin to form a composite material called GRP, (glass reinforced plastic to be correct.) The resin used is unsaturated polyester (or more recently vinyl ester) which is catalysed with MEK peroxide to form a hard, solid thermoset material that is a semitransparent structure about 5 – 15 mm thick, in the case of pools. The inner surface usually has a blue coloured finish called a gel coat (usually vinyl ester resin with no fibreglass reinforcement) which provides the decorative surface we all see in pools. This is about 0.5 - 1 mm thick when new, however it slowly wears away over time.

Fibreglass pools provide for an easy-care surface which usually requires minimal maintenance. Maintaining a correct chemical balance in the pool water and regular cleaning are important for good gel coat performance.

After 10 – 25 years the gel coat may be looking tired, dirty, suffering algae attacks, may have osmosis, black spot and even worn through in some places. (see pics below)

It can be upgraded successfully by using PaintNForget Fluoropolymer or PnF PP 100% Hi Build epoxy however there are some important issues to discuss before carrying out this work.

The first issue relates to the condition of the fibreglass. If just looking a little worn and tired and chalky, then relatively straightforward. Or does it have black spot, osmosis etc.? (Osmosis - the process starts with little blister-like pimples appearing on the surface of the gel coat. These grow to 5 – 100+ mm diameter, matter of months to years and can cover the whole pool. Eventually, the gas-filled blisters rupture, water seeps in and the holes continue to enlarge, allowing unsightly black spot algae to make their home in them). If a pool has Osmosis, it's a permanent issue and almost impossible to stop short of a new FG liner. There is some evidence to suggest that osmosis is caused by the use of faulty techniques during the manufacture of the pool.

In most cases the Osmosis is a slow process and may not show up till the pool is 10 years or more in age, if at all.

As a result, many issues will not be easily understood until the pool is empty. Repair techniques may only be developed then. These may be quite straightforward or depending on surface condition, budget and pool life requirements, be quite involved and time consuming. To remove ALL osmotic blisters can be VERY expensive.



Worn gel coat in fibreglass pool. Needing attention.



Osmosis on wall of fibreglass pool

In dealing with a fibreglass pool then the following may need to be considered.

- Age and condition of the structure.
- Position of pool and water table levels.
- Effectiveness of hydrostatic valve (if there).
- Emptying of pool and monitoring it.
- Bracing pool if in unstable situations.
- Repairs to structure.
- Repairs to worn gel coat.
- Dealing with osmosis.
- Resurfacing options
- Removal and replacement of pool if in very poor shape.

Usually with such pools, if caught before they are too worn, its mostly cosmetic repairs and then resurfacing with PaintNForget Fluoropolymer or PnF PP 100% Hi Build epoxy. However, care still needs to be taken with emptying the pool and making sure it's in a stable state and not liable to lift up. (or bow inwards)

Removing all osmosis can be very time consuming and expensive, if using a contractor. Often the worst is dealt with and the rest left as it's a slow process and in most cases is mainly aesthetic.

After the necessary repairs and surface preparation it may be resurfaced with PaintNForget Fluoropolymer or PnF PP 100% Hi Build epoxy. Note that on "new" fibreglass repairs there maybe unreacted styrene present that will interfere with the long-term adhesion of any new coatings. These areas need to be carefully prepared before applying them.

Then coating with PaintNForget Fluoropolymer or PnF PP 100% Hi Build epoxy are coatings specially formulated for use in pools, will provide a seamless, hard-wearing coating for 7 – 14 years. It's applied in 2 -3 coats and requires only 7 – 14 days curing. It may be applied to fibreglass surfaces and will bond permanently with a clean, stable surface. Though there are both 2 pack they are easy to use, with ample working life for a good result.



Job done with PnF PP 100% Hi Build epoxy. Note some Osmosis left as is.