

## Hull (Gel Coat) Discolouration

by John Benge, Shrimper 433 (*Grace of St Just*) (Winter 2004)

Over the years there has been much discussion on this subject. Shrimpers, more than perhaps any other class of boat in the UK, tend to have many non-white hulls in their fleet. Colours, by virtue of their susceptibility to the sun's ultra violet rays, can fade and discolour and, owing to the pigmentation used, blues and greens tend to be the more seriously affected. Using a good marine polish with a UV inhibitor can significantly reduce the problem but it tends to be putting off the evil day. Eventually many resort to buffing and cutting the gel coat surface with mild abrasives using a low speed rotary buffing machine, followed by application of a good polish at regular intervals. The final solution is painting the hull and many older boats have been treated in this way.

In recent years gel coats have shown improvements in their UV resistance, but pigmentation problems in particular batches can arise. Gel coat thicknesses generally should be in the range of 0.3 to 0.5mm. This is often built up by spray, but heavy application per pass and improper use of thinning agents can result in colour separation. Similar problems may be related to air entrapment whilst spraying, again giving rise to some discolouration. Yet another factor can be over-rich resin mixtures in the subsequent lay up process, causing localised overheating in some hull areas.

As can be seen, correct procedures during manufacture are extremely important. A well controlled temperature and humidity environment together with care during the hull construction process is necessary. Generally speaking Shrimpers seem to have benefited from such controls.

A consolation in this matter is that hull discolouration does not affect the seaworthiness of the boat. Most of the time paint application on a discoloured hull is very successful, providing the colour is a reasonably good match. It is worth noting that problems can arise if gel coat defects that allow water into the laminate are not repaired promptly and efficiently.