

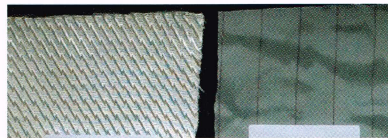
What we were trying to achieve:

A dynamic centreboard to give lift and--- wave and gust response, plus a blade which is low on drag, light and balanced.



The Board:

The core consists of laminates of Western Red Cedar, with splices of balsa in the bottom half to give the flex at the tip and some Yellow Cedar to give stiffness at the handle, with an epoxy/ glass re-enforcement of wrapped-round Bi-axial glass weave. An extra layer of bi-axial was laminated from the top of the board extending down to 260mm below the Keel-line. The board was then flow coated with epoxy resin, clear in the photos, but white pigmented for Charlie's board. The tip is an inset of a high density filler/epoxy matrix. After block and orbital sanding the epoxy flow coated board, we either continue to a 2000 grit wet and dry finish on the clear board or on the white board up to 320 grit before white PU lacquer is applied. The white PU finish was wet sanded to 2000 grit and finally finished with a polishing compound and a final Super-Glym polish



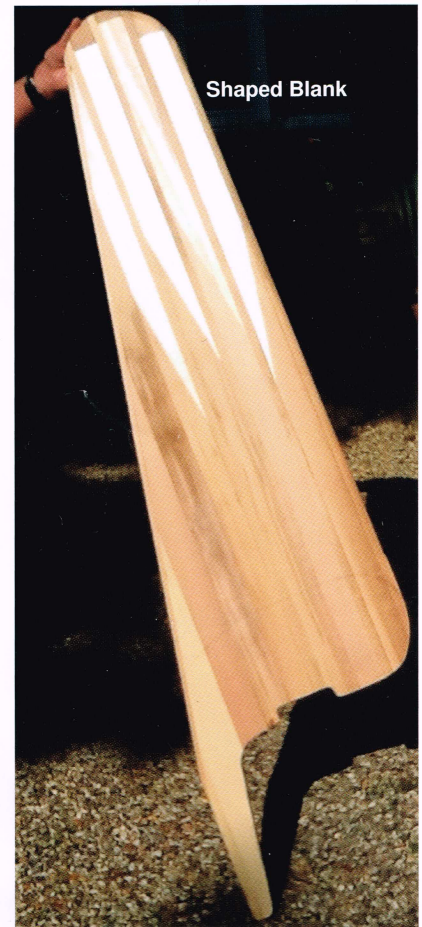
Arrow Weave

Peel Ply



300grm Twill

300grm Bi axial



Shaped Blank

The shape of the board is based on a 30% chord instead of the normal 33% because the Solo is not regarded as a quick boat by modern standards. On faster dinghies, we sometimes go up to 37% to keep to the chord profile we taper the board towards the tip. As we proceed with the shaping of the foil we are constantly checking with a profiling comb to make sure it's the same both sides. Throughout the process we make sure that there are no hard spots in the profile, especially on the leading edge, to avoid any break down of the laminar flow over the board. To eliminate any turbulence at the trailing edge, we take this part to about 0.25mm. Thin yes, but worth it!

The Blade:

This was a fixed version with a carbon tiller and Arrow Weave finish. The core was Laminated Western Red Cedar, glassed first with Bi-axial, then having ply cheeks [to meet the requirements of the class rules on thickness at the head] The shape was based again on 30% chord with a slightly more rounded/fatter leading edge to allow for greater angles of attack. Otherwise a blade is more likely to stall—so slow!

The plan shape was close to max depth and minimum width, as high aspect as is possible within the rules and a leading edge 20mm forward of vertical.. I made this blade for myself, but in the end didn't fancy getting really wet when launching. Such a wimp! And, may I say, making a board with Arrow Weave is not an easy glass to use: you have to incorporate peel-ply at every stage. Good luck if you have a go! On performance, you'll have to ask Charlie what he thought !



Ed;
Phil was far to modest to mention it but his Milanes foils helped some fine sailors achieve Championship titles in the Enterprise / Scorpion / Albacore / Streaker / Wayfarer and 505 Championships this year.

www.Milanesfoils.co.uk