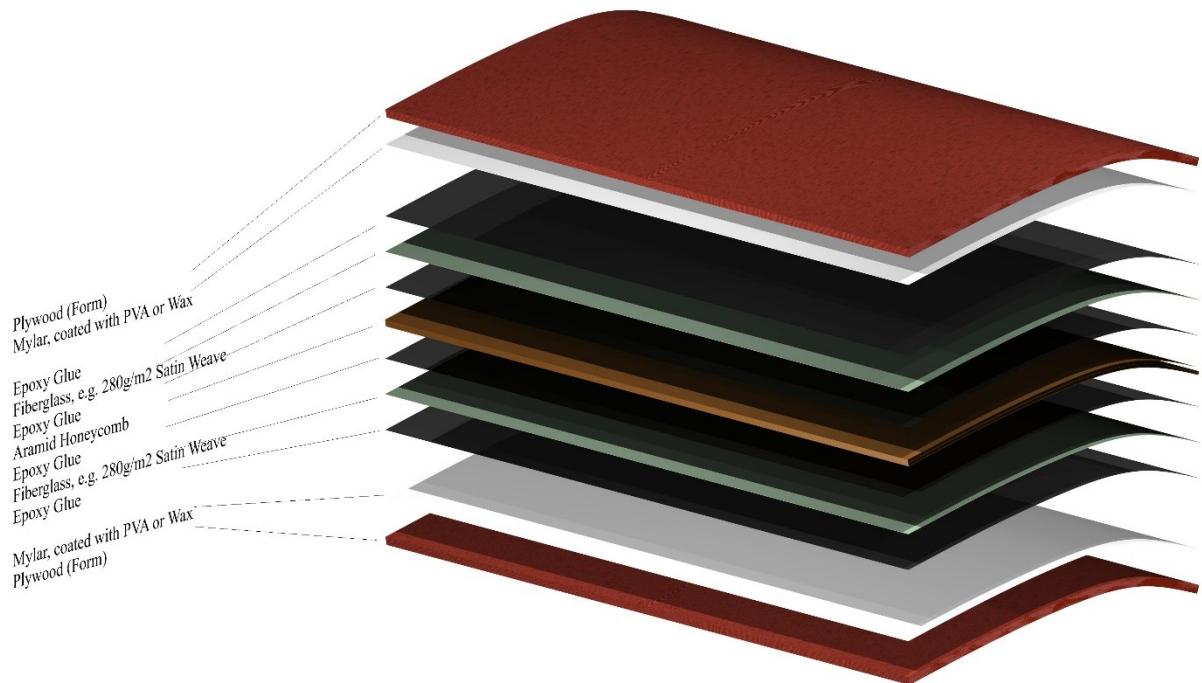


Lightweight Sandwich Oar Blade made with Aramid Honeycomb



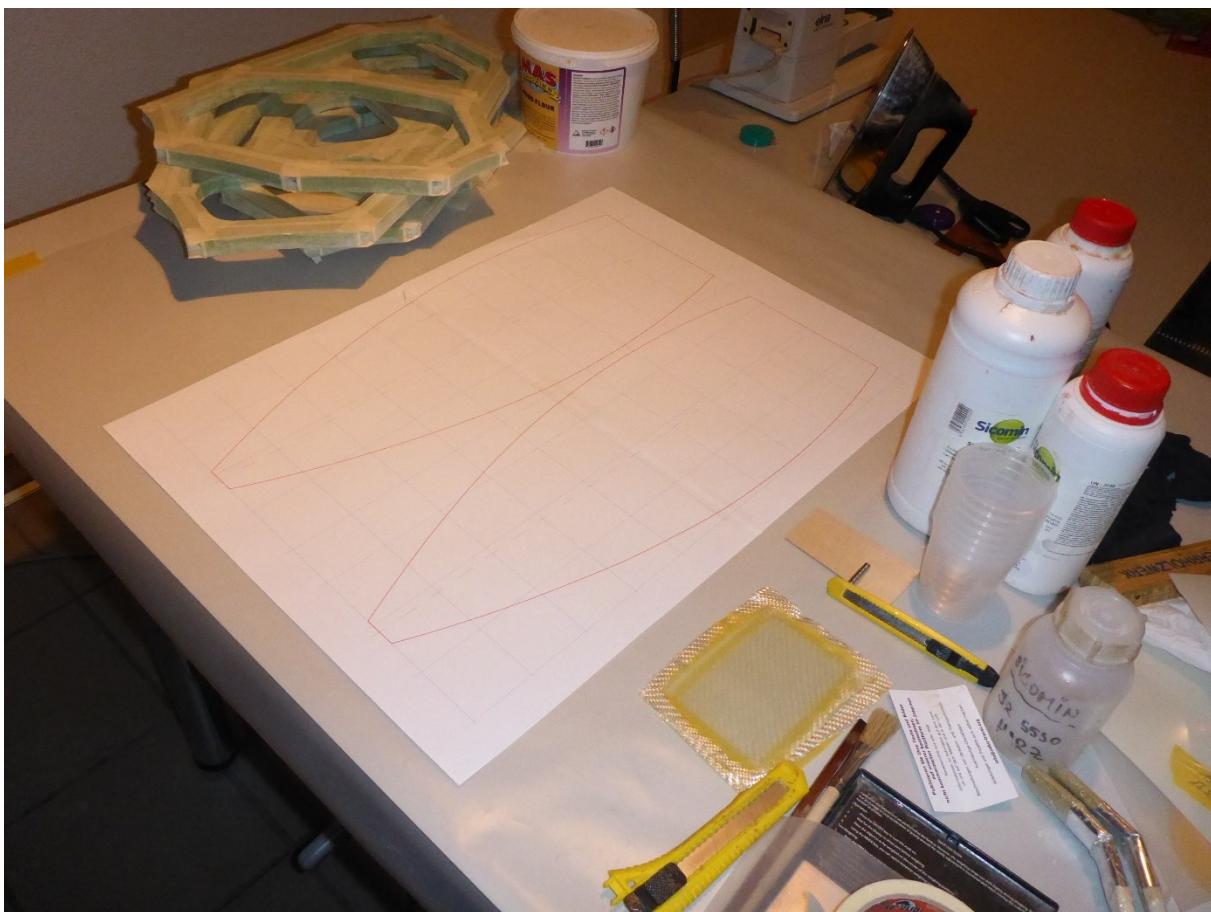
Structure – Mold and Blade Layers



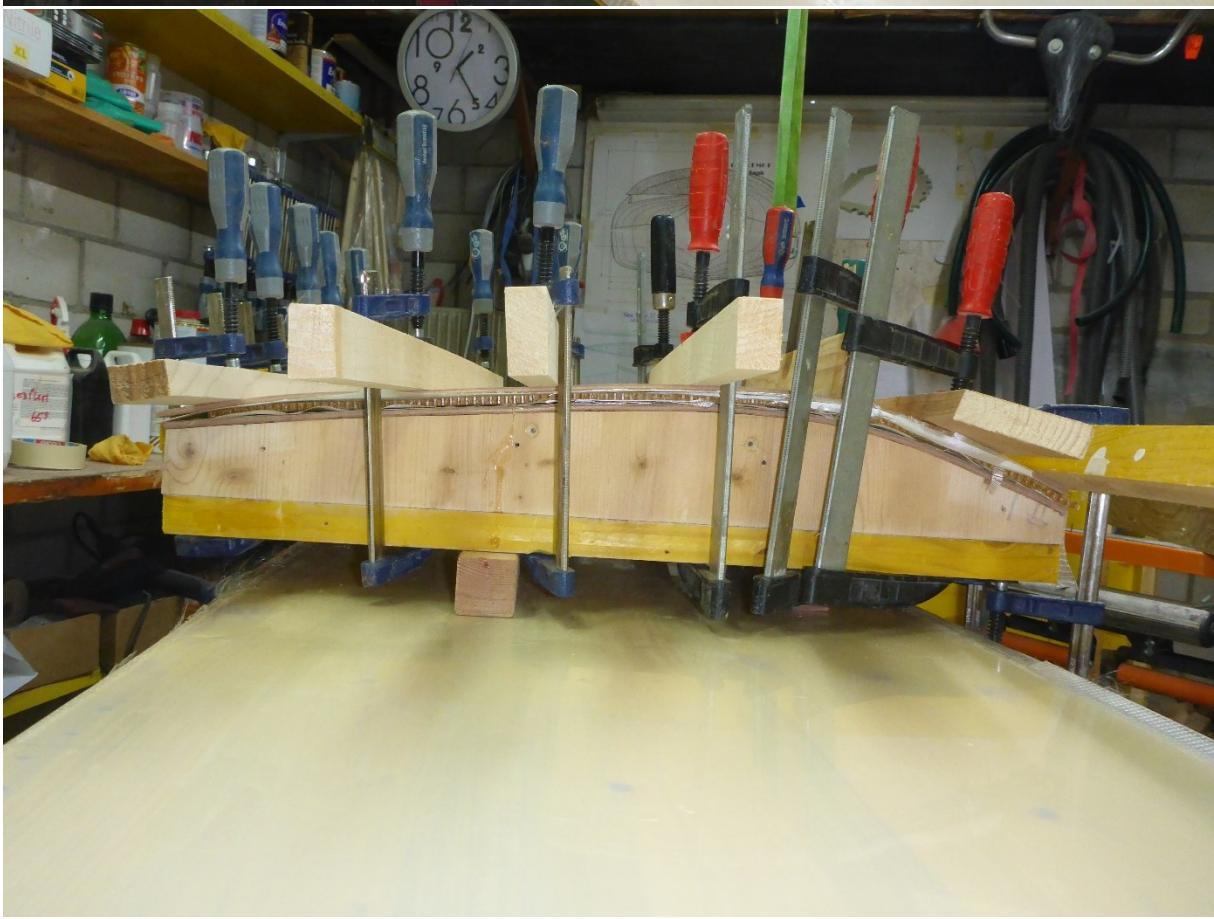
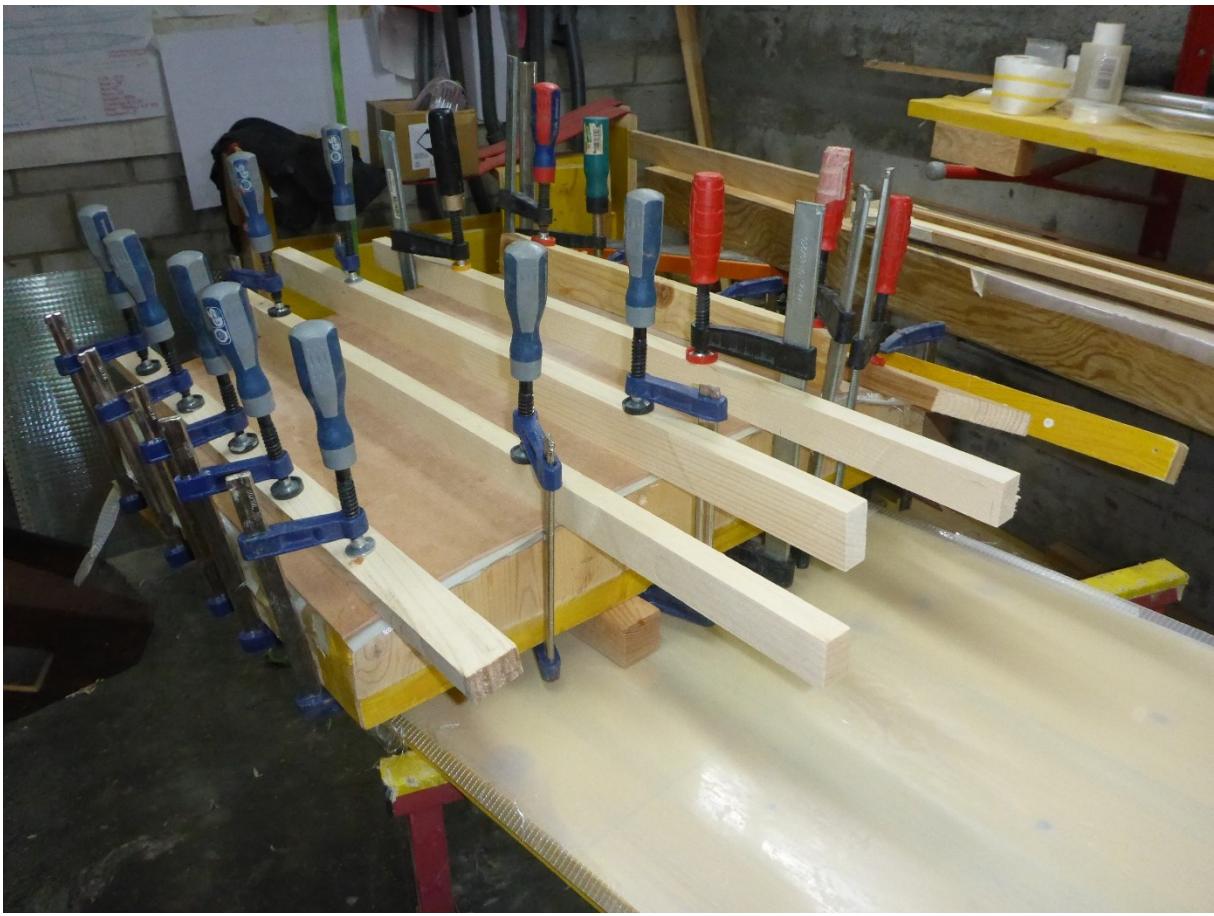
Building

Structure from bottom to top Structure up to and with honeycomb panel

Structure from top to bottom up to and with fiberglass top layer











Remark

The best adhesion between successive coats of epoxy is achieved when the first coat is cured to the point where it no longer adheres, but can still be pressed in with a fingernail. The duration depends on the temperature (try it out).

Then apply the next layer. This procedure results in a chemical bond that is much stronger than a bond by adhesion.

Phase 1

Structure form bottom

1. Plywood (shape)
2. Mylar
3. Release layer (PVA or wax)

Phase 2

Structure form top

1. Plywood (shape)
2. Mylar
3. Release layer (PVA or wax)
4. Turn the mould over - bottom side up

Phase 3 a

Structure surface bottom

1. Epoxy Surface Coat
2. allow to harden

Phase 3 b

Structure of blade body up to and with honeycomb plate

1. epoxy adhesive
2. Fiberglass
3. epoxy adhesive
4. Honeycomb panel (about 5 to 6 mms, $\frac{1}{4}$ "")
5. Press
6. cure

Phase 4 a

Top surface structure

1. Epoxy Surface Coat
2. allow to harden

Phase 4 b

Structure of top layer

1. epoxy adhesive
2. Fiberglass
3. allow to harden

Phase 4 c

Finalize blade body

1. Soak top layer with Epoxy adhesive
2. Place top layer on top of the open honeycomb plate of product from phase 3
3. Put top layers of mold on it, and press
4. Cure

Phase 5

Complete a blade

1. Marking and cutting out sheets (circular saw or band saw)
2. Make mold for edge protection glue (I have done this with masking tape)
3. Fill edge protection molds with thickened epoxy
(I used wood flour and Silica to thicken it)
4. Remove edge protection moulds
5. Sand edge