

Case story: Resin infusion at MAGBOAT

Replace peel ply, release film and flow mesh with one product: Compoflex®



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Preparation and lay-up

Compoflex® SB RF 150 was glued directly onto the glass fibre (1000–4000 g/m²).

Each side was prepared simultaneously. Resin brakes at the top of the mold stop approx. 50% of the flow front and prevent resin from entering (or filling) the vacuum system. The entire mold is bagged. The vacuum around the mold edge was distributed using a tube flow grid.

Compoflex® SB RF 150 replaces three layers: peel ply, release film and flow mesh. Time spent on preparing the consumable was reduced by 70%.

Infusion and set-up

- Vacuum 0.9 bar
- Gurit Epoxy resin SP Prime 20 LV approx. 400cP at 30°C
- Glass: Approx. 1000–4000 g/m²
- Inlet tube in general: Ø 10 mm.

The flow channels distribute resin coming from the inlet tubes. The flow channels are evenly distributed over the mold surface, giving max. 0.8–1 m of flow distance. In this case, right after the lay-up and approx. 14 hours before infusion, vacuum was applied as final preparation. Over night, the vacuum was kept at approx. 0.9 bar compressing the laminate. This is done to compress the glass and thereby reduce volume and weight of the construction. This also has the effect that the flow speed in the glass is reduced.

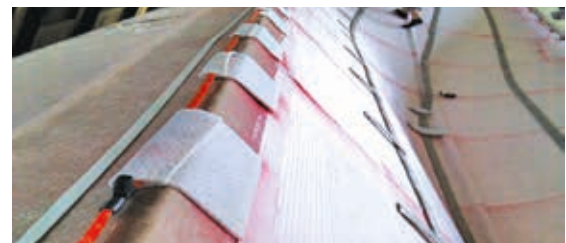
The infusion of the entire hull lasted approx. 50 minutes.

Conclusion

Using Compoflex® for infusion of an epoxy boat hull offers the following benefits:

- Easy and fast lay-up: In this case, the processing time was reduced by 70%
- Controlled flow front, thus avoiding failure in laminate quality
- Sufficient infusion speed
- Easy peeling without resin dust
- Secondary bonding properties eliminating the need for grinding

Higher infusion speeds can be achieved using the new Compoflex® RF 3 or Compoflex® SB RF 3.



Lay-up using Compoflex® SB RF and infusion channels



Infusion of hull using Compoflex® SB RF