

Building a hard top dodger in Fiberglass on XEBEC

I was tired of leaking, moldy canvass and the original dodger was 12 years old and due for replacement. So when visiting the Boat Show I saw a display of Bote-Cote Marine Epoxy systems and decided to build a dodger combining a hard top and soft clears. I had been trying to get a shipwright for this job but could not find one with the time available. Whilst cruising I had seen many long-term cruisers with this solution and had taken photos as a guide. I was also trying to solve other problems including:

- getting more space under the dodger
- improving security entering and leaving the cockpit
- increased space for navigation equipment and winching.
- increased visibility

So I also needed to redesign the SS frame. I completed this by making a template from timber and subcontracting the fabrication to Bruce Driver in Mona Vale. I used the new frame as a formwork for the new hardtop as can be seen in the photos.

I made the mold from MDF using the SS frame to get the shape and built a table from MDF that I could later keep for general use

I then made a template for the top using sarking placing this template over the 10mm nidaplast



Core material seen standing upright behind the mold. I tested the mold by placing the SS frame on the mold to verify tolerances as I had to allow 15mm for the thickness of the FG top.

I was unsure of the bending ability of the nidaplast but I did not encounter any difficulty.

Nidaplast is a very light material which looks like a honeycomb covered both sides with a light FG material. I laid the material on the floor, weighing down template and then cut using a sharp knife.



Double- sided sarking makes a good template material which I have used many times for various boat tasks. I then nailed the nidaplast to the MDF mold using gal nails at regular spaces but enough nails to hold the material to the mold. I then placed the SS frame on molded nidaplast to verify that tolerances were good as I now only needed 2mm for the 2 layers of



200Grm plain weave mat I was using on the inside of the Nidaplast. I laid the 2 layers wet in one day using Bote-Cote Epoxy with a fast hardener. You use 2:1 mix. I tried a roller but found I was using too much Epoxy so after the first cote I resorted to a brush. I used a 150mm metal compression roller to compress the Epoxy. Before the Epoxy set I used 1 layer of Peelply Nylon Fabric which I left overnight. The next day I peeled the Nylon from the fiberglass leaving a smooth surface which I did not have to sand. I would have had less trouble if I had warmed the epoxy before adding the hardener.

The tricky task was applying the second layer of fiberglass when the Epoxy is tacky and before it is set. The same applies to laying the Nylon. I also had to fill some of the nail holes when I punched the nail too far into the Nidaplast. I am sure a shipwright would have fewer problems with this task. You can see how shiny



the surface of the Nylon is from the photo. I then prised the glass from the MDF mold. The next stage was the glassing of the topside which required 3 layers of the 200 Grm matt. I laid the top on the SS frame so that the shape was retained and applied the 3 layers in one day using the same method. By now I was getting more confident in layering quickly. Again I applied the Nylon and the next day peeled the Nylon.

However, the surface was good but not perfect due to the nail damage and I decided to smooth coat a layer of Epoxy paste to get a smooth surface. I used a plaster's trowel to apply the Epoxy paste. I then had to only very lightly sand the final surface ready for painting. I also had to remove 10mm of core from the edge and fill with epoxy.

I spoke to Jeff Owler about his recent experiences with his hard dodger and decided to use a deck paint so that any imperfections would not easily show. The most difficult part of this was matching the colour to the deck on XEBEC. I



had to mix white and cream to get close to the required colour. I used brushes for all coats.

You can see the Nylon being peeled from the top of the dodger and the imperfection of the nail heads which I filled.

The result can be seen once the top is bolted to the frame. I used U bolts through SS hand holds and around the SS frame. This gave me a secure method of entering and leaving the cockpit. It also made for a very strong method of securing the top to the SS frame.



Clears and Canvas Joiner

I selected SB Marine Trimming for the dodger clears in roll glass, a link sheet joining the hard dodger to the bimini and the alterations to the existing side mesh. The end result can be seen below.



Costs

Hard top - \$405

The Bote-Cote material included fiberglass, epoxy, rollers, nylon peelply, nidaplast and utility shears.

Paint/Hardware - \$200

I used Interdeck (beige and white mix 2:1) and International Prekote.

SS frame - \$800

Canvas clears in rolled glass - \$1650 by Shane Beashel