

(easy) Fiberglass Fairings

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(EASY) CUSTOM FIBERGLASS FAIRINGS

Whether you are customizing an ARF, building from plans, or building a scratch built model, you may want to put together a custom fairing. It's really not that hard. For three million U.S. Dollars I'll be happy to show you the way. No? Well, I'll offer the secret up anyway if you read on a bit.

The example I'm showing is a wing to fuselage joint cover for a scale model of a Stinson SR Reliant model. It is 1/5 scale and allows some nice detail.



Here the wing has its finish paint while the fuselage and fairing are in aluminum paint. The fairing wraps around the leading edge and is a complex shape with several attachments to duplicate.

I use an epoxy/fiberglass combination for this kind of project because it stays flexible longer than polyester/glass parts and offers a longer 'pot' time to work with. The glass is two layers of 6 oz/sq yard and one layer of 0.75 oz/sq yard on the surface to minimize priming and filling. In my opinion, the glass is most easily cut using a circular fabric cutter.



The next step involves the use of nice soft modeling clay. The kind you used when you were a kid? You need to fill the area where you want the fairing only a little oversize.



Just gob it in. Put on your sculpture costume and have at the clay with whatever tool seems to work. I have an Exacto knife with a round end that I use for the first crude cuts and a smooth stick helps too. When you get close to the desired shape, dip your finger in a little paint thinner and smooth the surface.



At this point you need to protect the models painted surface with a mould release. This can be a couple of layers of paste floor wax, or a coat of Poly Vinyl Alcohol. Also known as PVA it is a thin liquid that dries to a thin surface that is water soluble and nothing sticks to it. When the epoxy sets up you can just 'pop' the part off the surface.

Lay up a couple of layers of the six ounce cloth impregnated with epoxy. If you thin the epoxy 20% or so with 91% Isopropyl alcohol the epoxy soaks in better but it takes longer to set up. While the epoxy is still wet, apply the final layer of 0.75 oz. fiberglass.

A paper towel or wad of toilet paper can be used to soak up any excess epoxy so the surface looks slightly 'dry'. It's now time to open a can of your favorite beverage and begin a 24 hour waiting period while the epoxy hardens enough to remove the new fairing. A thin flexible blade helps start removing the part from the model.

After about 48 hours the part can be lightly sanded, primed and any extra parts made of shop scraps or other materials can be added if needed. On my fairings I used a little aluminum, some sheet plastic and a balsa block to finish the details. Oh, a little epoxy mixed with some filler to make it a little more viscous was dropped on to simulate rivets. A color coat of paint finishes the effort.

By now you have invested more time on the fairing(s) than you have on the whole ARF, ¼ of the kit, and 10% of the time it takes for a plans built model. Welcome to the manic builders association!

That's this scale view from Ramona. E-mail Ron3180x@aol.com