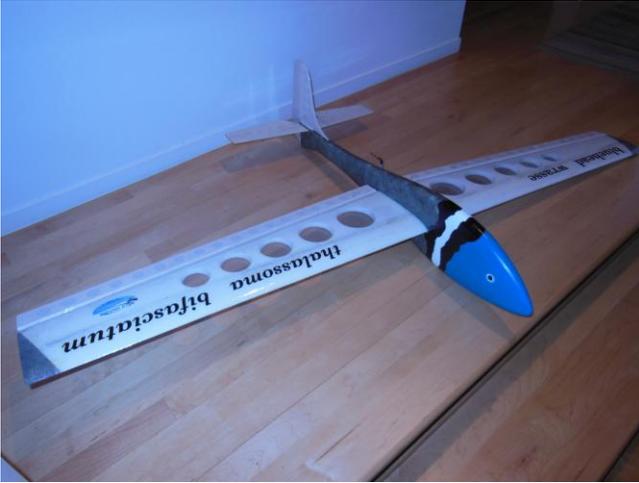


Le Fish



This model called the "le Fish" is an EPP foam slope unlimited aerobatic glider. It has a 66 inch wing span and weighs 30 ounces. The air foils are a blend of airfoils- SB96V (root) and SB96VS (tip) for better inverted performance and versatile all-around capability. The wing loading is 10-11 oz. per sq. ft. My plane has been extensively lightened with lightening holes on the control surfaces and wing.

I got the plane from Leading Edge Gliders (www.leadingedgegliders.com/catalog/eppGliders_66/66_epp_LeFish.php) It is a Steve Lange design. On RC Groups he is known as Surfimp. Check out his blogs and build threads on LeFish and Swiss Fish, a later evolution of Le Fish that is super light with even larger control surfaces made of depron.

The kit consists of a foam wing and fuse, balsa wood ailerons, rudder, and elevator. You get some carbon rod to stiffen the wing and fuse. Some clevises and servo rods are also included. You need to supply servos, rx, and battery plus building tools and materials.

You can get a short kit consisting of just the wing and fuse from www.flyingfoam.com/content/le-fish-cores. This is a cheaper way to go and you can make the control surfaces from balsa or depron. The fuse comes cut out but not shaped. The reason for the fish shape is to gain knife edge ability. After rounding the edges, cutting out for rudder and elevator servos, wiring channels, and rx/battery compartment I strengthened the fuse aft of the wing leading edge with carbon veil; the front part with ½ oz. fiber glass making for a very stiff yet light fuse.



The wing comes shaped but needs to be sanded and stiffened with carbon rods top and bottom. It is covered with a material called "new stuff".

New stuff is laminating film. I purchased it from Aloft Hobbies (www.alofthobbies.com).

It is now considered the best covering film for EPO and EPP foams and even wooden structures. It is easy to use, cheap, and tough! It is sold by the linear foot and comes in different weights, from 1.7 mil x 18 inches wide to 10 mil x 18 inches wide.

Here is some history. The name "new stuff" came from the first folks that started experimenting with laminating film on their planes, they simply referred to it as the "new stuff".

Word got around that this 'new stuff' really made a plane perform, and made it much more crash resist.

You can now build an EPP plane without any spars and no tape as the 'new stuff' will result in a very strong and very clean structure. Thanks to the tough and flat surface of the film, most planes will enjoy a more accurate airfoil that will perform better. I used the CP 1.7 mil new stuff to cover the wing and the CP 5 mil to wrap the leading edge of the wing to the top spar continuous to the bottom spar. The 3 mil is great for molded foam planes with a lot of compound curves, and the 1.7 mil is excellent for super light builds.

New stuff is flat opaque on one side, this is the adhesive side. To apply, you iron it on, but it is a little different than other iron on films. New stuff has a very low shrink ratio, so you no longer need to tack the edges and work your way into the center. Just the opposite, take an iron that is about 200- 250F (hot enough to boil a drop of water on the face

of the iron) and start from the center and work out towards the edges. No need to pull the film tight, just remove any ripples and iron it down. As heat is applied, the adhesive will activate and the film will turn crystal clear. Since the film hardly shrinks, no more twisted and tweaked airframes. Aloft Hobbies (www.alofthobbies.com) stocks CP and DI films.

Here is a brief breakdown of their differences paraphrased from their web page:

DI Films- this film offers excellent rigidity and goes onto a wing very nicely. DI is stiffer than CP and is an excellent choice for wings. The down fall of DI is that it does not take to tight of bends or curves as well as CP films. A wing covered with DI will be stronger and straighter than a wing covered in CP film. DI films also feature UV protection. CP Films- CP films are the traditional 'New Stuff' and work well for many applications. It works much better than DI films on compound curves like fuselages and wing tips. If you can only have one film, they you want the CP film. CP films are more flexible and may be a better choice few extreme crash protection is desired. I used the CP film on the Le Fish wings. As for use on wood, covering a solid balsa area seems to work ok but on an open structure like the wing, the film will stick to the ribs but it will not tighten or shrink in the open areas like other films.

Four Hitec HS 65 MG servos, a 5 cell NiMH battery , 3.8 oz. of nose weight, a 6 ch. 2.4 rx and the plane is complete and ready to fly. I couldn't resist making the plane resemble a fish. I choose the tropical fish Blue Head Wrasse. It is not a naturally flying fish but in this case it is now.



Lou Fox