



New batten tensioners

First introduced with the TR-4 race sails, these new tensioners go even farther to get the leech tension and batten loading equalized near the edge of the sail. They are made of injection molded polycarbonate, and use a 10mm stainless steel screw, and are 4a lighter.



This year we decided to change the way the leech was designed for ultimate reinforcement. In order to toughen the lower leech where wave destruction so often happens, we added six strands of Kevlar $^{\rm IM}$ and attached them with sewing before adding the tape edge cover. To further add beef through the most loaded leech areas, back to back woven fiber patches take the loads first.



Reduced foot bead

This saves lots of weight and still does the job, hitting shins and ankles much less hard, and being more flexible in general.

Pearlescent white XPly™

We were looking for something unusual that would make the graphics more potent. We had tried several times before to make a 'sparkle' or pearlescent characteristic, but there were always technical problems that made the end result come out looking poor. Over last year we worked steadily with our laminator and came up with an interesting solution that turns out to do a lot of good things.

First we had to laminate two layers of film with the pearl material in between. This assures the quality of the reflective and puts it away from the colored glue.

Then the double layer is laminated again with the white glue and fibers sandwiched inside, making the final high-end reflective look on the bright white color. The added benefit is very high UV resistance and higher puncture and tear resistance because of the multiple layers. There is no weight penalty for this new material.

Tougher sleeve

Our fiber aligned designs can take full advantage of the new sleeve material we are using. It is more resilient using tougher yarns and very resistant to reef and rock damage.

6mil window mesh

In response to sailors wanting a 100% fiber laminated wave sail, we developed a material slightly thicker than was commercially available. We felt it was better to increase the laminate thickness to add to the benefit of having the fiber reinforcement. There is no weight penalty versus a 7mil film window.

Tack chafe reinforcement

Expanding the area of chafe protection in the lower sleeve has been approached in a way that results in solid protection for the areas that take the serious damage from decks and rails, and a very lightweight solution for the areas that are seldom, if ever, impacted. The end result is saving 250g and is soft on the feet, and tough in all the right places.

