

## **CRUISER BENEFITS**

*Save Weight. Gain Performance*

**Weight** >>

**Stability** >>

**Reliability** >>

POWERLITE PBO Rigging sets a new cruising standard for standing rigging applications. POWERLITE provides a more comfortable and stable sailing motion, reducing pitching and rolling in waves, and lowering the heeling angle so the boat sails flatter and smoother. The weight-saving POWERLITE rigging is a drop-in replacement for wire and rod in all standing rigging applications. PBO systems were originally developed for America's Cup and Grand Prix racing and have proven longevity and dependability under high stress sailing conditions.

### **Weight Savings**

POWERLITE PBO can save as much as 65% of the weight from a sailboat's standing rigging, an astounding benefit since weight aloft is where it most adversely affects stability, performance, and handling. When under sail, the mast acts like a long lever arm, the rule of thumb being that one pound near the masthead requires about 10 pounds of ballast in the keel to counteract its heeling effect. For a cruiser, a lighter rig makes for a stiffer boat that can be driven harder before having to reef.

### **Stability**

Reducing weight aloft lowers the position of the vertical center of gravity ("VCG"), which dramatically affects the boat's handling, stability, and response. A simple example of this can be seen by comparing the handling of a car to a top-heavy sport utility vehicle. The car's superior responsiveness and stability are primarily due to its lower VCG. The effects on a sailboat are amplified by its tall mast, so lowering the VCG has several obvious benefits:

- 1. Improved Control at Sea:** A lower VCG reduces the force necessary to change directions and increases speed in a tack or jibe. A more upright sailing posture makes the boat more comfortable and controllable while reducing the distance the rig has to swing in transition. The boat's overall feel is lighter and more nimble, with improved response and transition time.
- 2. Improved Capsize Resistance:** Lowering the boat's VCG directly affects the "Angle of Vanishing Stability," one of the best predictors of ultimate stability—resistance to capsize and heel.
- 3. Reduced Pitching and Rolling:** Lowering the boat's VCG can reduce some undesirable forms of dynamic motion, such as pitching (hobby horsing), and wave rolling.

### **Efficient Light Wind Cruising**

POWERLITE PBO Rigging increases the boat's sailing efficiency so that more energy can be delivered in a forward direction. This increased efficiency contributes to keeping the boat moving in light-to-moderate winds, so more time can be spent sailing and less time motoring.

### **Reliability**

After many years of use, PBO rigging continues to be the racer's choice for strength and reliability at the America's Cup and Grand Prix level of competition. This same technology is now available for cruisers. POWERLITE PBO has been designed and is race proven to withstand the harshest conditions<sup>1</sup>. POWERLITE PBO is substantially stronger than rod or wire, and has a fatigue life over 3 times that of wire, and 6 times that of rod<sup>2</sup>. In addition, the product comes with a 4 year limited warranty – unmatched by any other synthetic rigging and most steel rigging.

<sup>1</sup> When maintained and used properly, see manufacturer's instructions for usage and care guidelines.

<sup>2</sup> Tests were performed in a laboratory and may not correlate to field use or actual longevity.

## **Main Benefits:**

- More upright sailing angle = More comfort on deck
- More power in all conditions but especially in light to moderate winds = Less motoring
- Increase in rigging stiffness of 18% = Better sail shape and power transfer
- Safer in tension shock loading = Less fatigue to rigging components
- Synthetic materials = Reduced corrosion and discoloration
- POWERLITE PBO is an insulator and will not conduct electricity = Safer in electrical storms



**For answers to additional questions, please contact**

**phone:** 877-AP-FIBER (877-273-4237)

**email:** [sales@powerliterigging.com](mailto:sales@powerliterigging.com)

**web:** [www.powerliterigging.com](http://www.powerliterigging.com)