



Load Path Sails and FiberPath Technology

Neil Pryde Sails International is licensed by Genesis International to produce Load Path Membrane sails under the USA patent No. 4,708,080. These "080" compliant sails are designed and built with transverse (cross-cut) panels and seams with structural yarns of polyester, Vectran, Technora, carbon fiber and/or Twaron.

This technology allows us to utilize our existing design software and take our proven CAD designs and shapes directly into this new method of sail construction. With the FiberPath technology we can address the multiple directional loads within a given sail and create a fiber layout that addresses both primary and off-axis loads. The sails are designed in a crosscut configuration, giving the designer the optimum control over sail shape while reducing the number of seams throughout the sail. The result is a sail that is incredibly smooth and has a broad working range, due to the dynamic implementation of the 'load mapping' of yarns. Each individual panel is cut to match the three-dimensional design mold and then is strung with a series of curved yarns, which align the load paths of the sail. The yarns will vary in type and density depending on the application and sail type. The panels are then assembled using the Dimension / Polyant Ultrabond system which virtually makes the sail one piece.

Fiber and Film: As the line between sail and fabric is now blurred, we are able to build these sails in any of the commercially available yarns that are currently used in sailmaking AND blend them if necessary. In addition to varying yarn types we can also vary the deniers of the yarns providing us with an unlimited range of design and construction for each sail and each application! Once strung, the panels are laminated to Mylar film using a high pressure commercial laminating machine — as is done with commercially made sailcloth — and the result is a low adhesive content, high bond composite. This means that delamination is eliminated and the resulting sail has an extremely high weight to strength ratio.

LPS & Performance Cruising: The ability to laminate a taffeta (lightweight woven fabric) to one or both sides of the construction adds a new range to the LPS sails, improving U.V. degradation and chafe resistance. These sails are providing customers with a high-end cruising product designed to offer the benefits of the FiberPath technology and the durability of a cruising laminate.


LPS Performance: In a conventional tri-radial sail there will be 30-40 radial seams, which cross the visual plane of shape at right angles. The elimination of these seams improves the cross sectional shaping and also reduces the potential for assembly error. The FiberPath mapping reduces weight throughout the sail but not at the expense of engineering. These two features will build a smoother, more easily trimmed sail and one that will translate to better performance across the board.

Contact the Neil Pryde Agent in your area to find out more about this exciting product.

fast forward

*Neil Pryde Sails,
Fast forwards to
FiberPath Technology
and Load Path Sails.*

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Genesis International*

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