

UK SAILMAKERS TITANIUM



TITANIUM: SAIL WITH CONFIDENCE



The Manufacturing Process

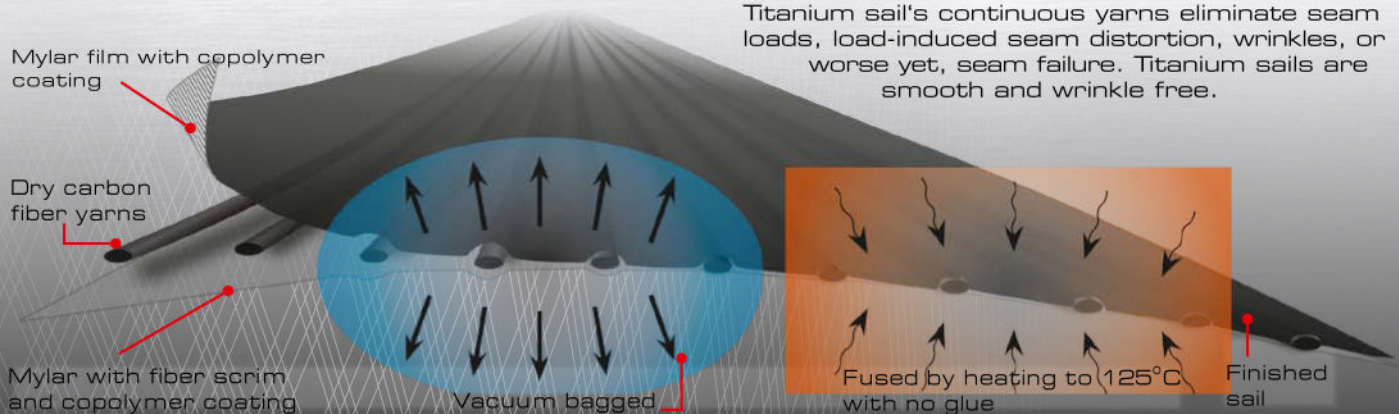
UK Sailmakers pioneered load path sails with the Tape-Drive® construction method, which transfers the sail's aerodynamic loads from the sail's cloth and seams to bundles of high strength yarns.

In Titanium sails, the load-bearing yarns are unbundled, spread evenly across the sail, and run from head to clew, head to tack, tack to clew, with no breaks or interruptions.

This array of load-bearing, high-strength yarns is laid dry (without glue) by machine on a skin of aerodynamically shaped Mylar.

A second 3D-shaped Mylar skin is then laid over the yarns. The skins, coated with a copolymer, form a strong bond after the sandwich of skins and yarns are laminated with heat and pressure. The heat makes the copolymer flow to totally encapsulate the yarns. The vacuum bag pressure squeezes the Mylar down around each individual yarn to further encapsulate the yarns.

Yes, there are seams in the skin of a Titanium sail, but they are there simply to shape the membrane. Unlike most high tech sails in which structural yarns only run the width of an individual panel, a Titanium sail's continuous yarns eliminate seam loads, load-induced seam distortion, wrinkles, or worse yet, seam failure. Titanium sails are smooth and wrinkle free.



The Material

The extremely light Titanium racing sail guarantees the highest form stability and shape-holding. The mylar films are solid black or clear. The base scrim is made of aramid or Technora, while the aray matrix

is made of 100% carbon yarns. For performance cruising sails and offshore racing sails, we recommend Titanium sails with two added layers of protective taffeta. The taffeta can be white or gray.



Titanium black film



Titanium gray taffeta



Titanium LiteSkin



UK Sailmakers

The Difference

In most other sail construction methods, a flat sail is laminated with glue, cut apart into pieces and re-formed into a 3-dimensional shape. This compromises the structural integrity of the fiber array. That's not the case with Titanium sails.

Titanium sails keep their shape. They are made in one piece without load-bearing seams and with yarns running throughout. The forces on the sails are optimally dispersed over the entire yarn structure.

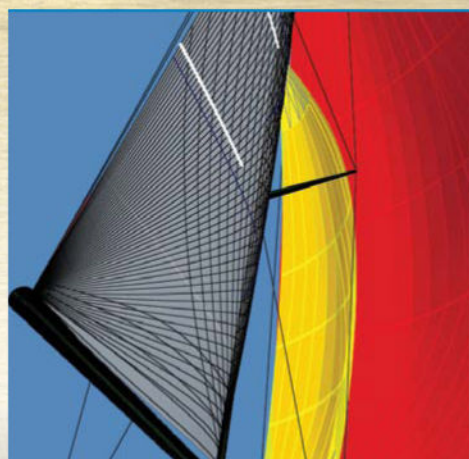
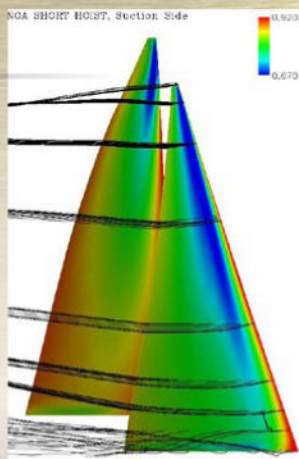
Titanium sails are light and flexible. Because the lamination process uses no adhesives on the fibers, which allows Titanium sails to remain flexible and strong. This increases the stability of the shape while reducing weight.

Titanium sails last. The adhesives used in manufacturing most laminate sails combined with exposure to the sun can make those sails brittle and delamination can occur. By not using glues, Titanium sails remain flexible and strong. By using only dry carbon yarns, UK Sailmakers builds sails with the lowest stretch possible.



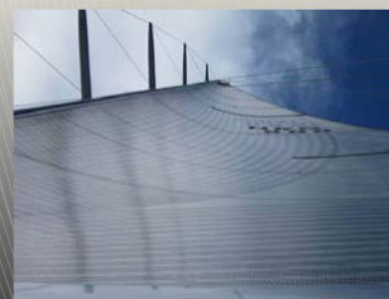
The Sail Design

An optimal sail starts with a good design. With the help of modern design software, all UK sails are individually crafted to meet your needs. New computer programs make it possible for UK sail designers to create 3D sail profiles that can be analysed and tested with visual airflow simulations. The resulting sail design is cut with precision by a computer-driven cutter and the yarns are laid by machine along the load paths.



The Guarantee

Titanium mainsails and non-overlapping genoas are guaranteed against delamination for two years, overlapping genoas come with a one year guarantee. No other sailmaker makes this guarantee. Terms and restrictions apply. Check with your local UK Sailmakers loft.





UK SAILMAKERS: ESTABLISHED IN NEW YORK CITY IN 1946

A WORLD-WIDE GROUP OF 50 LOFTS

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