So, sailcloth really does make a difference?

Quality cloth is always a good investment in terms of performance and durability and it is usually worth buying the best you can within your budget. We would recommend you ask your Sailmaker for details of what he is using for your sails and why, so when comparing quotes you can make sure they are like for like. Our product leaflets offer further information on the Bainbridge range of cloth and are available with your Sailmaker.

With a full range of sailcloth, sailmakers hardware and a global sales and support network, Bainbridge is uniquely qualified and committed to supplying the world with the finest quality materials. Founded in 1917, Bainbridge International is one of the longest established sailcloth manufacturers in the world with almost a century's experience in developing and supplying the highest quality, highest performance materials to the marine industry.

Bainbridge has always been at the forefront of technical developments within the world of sailcloth. Through the skills of the technical team, we have developed a number of products including AIRX Performance Spinnaker Fabrics, MP Multi-Purpose Spinnaker Fabrics, DIAX Laminated Sailcloth and SAILMAN Full Batten Systems. These have been used by many high profile campaigns including America's Cup, Vendee Globe, Volvo 60 and BT Global Challenge.

Leaves in the Range

There are other leaves in the range that offer advice on our other sailcloth ranges and our SAILMAN Full Batten Systems. These are available from your Sailmaker.

www.sailcloth.com - 5 simple steps to better sails

We have developed an easy to use website that offers advice and recommendations about the correct sailcloth for your needs. With 5 simple steps to follow, you can develop an understanding for the benefits of the sailcloth styles we offer and comprehend which one meets your needs.

Partnership

Your Sailmaker is the essential link between our fabric technology and your boat. They offer Bainbridge fabrics because of the inherent trust that the excellence of their workmanship, combined with the quality of our products, will provide you, the Customer, with the best possible value and performance.

Technical Innovation and Service - The Fabric of Our Business

A GUIDE TO Sailcloth

www.sailcloth.com - 5 simple steps to better sails

AIRX™, DIAX™, MP™, and SAILMAN™ are trademarks of Bainbridge International Ltd.
Understanding Sailcloth

When you talk to your Sailmaker about your sails how much time do you spend discussing the sailcloth he is going to use? We hope this guide will give you an insight into sailcloth design and manufacture, and answer a few questions you may have about the fabrics your Sailmaker has selected for your sails.

Why do I need a new sail?

Your Sailmaker designed the ideal shape for your boat, the type of sailing you enjoy and your local conditions. Over time your cloth has deteriorated, reducing its ability to resist the stretching forces on your sail and so losing the shape your Sailmaker intended. The effects of this can seriously affect your sailing enjoyment.

What difference does the sailcloth make to me?

Obviously good shape retention is important for racing but increasingly, cruising sailors are realising the benefits: less heel, better pointing and easier boat handling. Quality laminated or woven fabric a sound investment.

Laminated or woven? What's the difference?

Although today Bainbridge International uses leading edge technology, the basics principals of weaving sailcloth have not changed since sailing began, with warp yarns being rocked up and down around fill yarns. Most wovens are made from polyester (also called Dacron) that was introduced by Bainbridge as a replacement for cotton in the 50's. Wovens are very durable making them ideal for cruising sails.

What's Laminated?

Laminated or woven fabric is formed by bonding together layers of different materials to form a sandwich. A simple laminate will consist of an open scrim of fibres with a layer of film bonded to each side. The scrim in our laminates is 'formed' and not woven. This process bonds flat ribbons of fibre into a lattice.

In a laminate, the scrim is fed into the laminator under tension so further reducing stretch on the threadline. When we weave a cloth the yarns have to snake over-and-under each other, this is called crimp. When the cloth is loaded these yarns straighten resulting in 'initial stretch.'

The scrim in our laminates is 'formed' and not woven. This process bonds flat ribbons of fibre into a lattice. No weaving, no crimp, less stretch on the threadline.

Our latest DIAX laminates use a 45-degree diagonal scrim to resist bias loads and, just like a road bridge, form a truss that locks together the warp and fill loads. In most other laminates bias load travels along the length of the cloth. In a laminate, the scrim is fed into the laminator under tension so further reducing initial stretch on the warp. Again we take advantage of this by using more fibre in the warp than the fill. So laminates should always be used for radial cut sails where the load travels along the length of the cloth.

Sounds good, but not all the load can exactly follow the yarns!

Generally your Sailmaker will know how the loads in your sail radiate out from the corners but with so many variables a fair percentage of the stress is off threadline. To reduce the effects of this, we try to minimise bias (diagonal) stretch. In a woven cloth we do this by locking the warp and fill yarns together, so bias loads cannot move the weave. This is achieved by making the weave as tight as possible by compacting and heat shrinking. Hold your handkerchief up to the window and compare the weave to a 100X magnified piece of our cloth. To further stabilise the bias we then impregnate our cloth with a resin finish that chemically bonds the warp and fill together.

Most spinnakers are made from woven nylon because it has good tear strength. Nylons come in different generic families ranging from 2.2oz down to 0.4oz but be careful, these numbers do not directly relate to the cloth weight. Nylons can also be coated or impregnated and warp or fill orientated, but the important thing is the relationship between stretch, tear strength and weight. Heavier nylons do not always have lower stretch and better tear strength as a high quality light fabric can easily out perform heavy, low quality products. Our MK2 performance products prove this with lighter fabrics having similar properties to many of our competitors heavier styles, while our MP multi-purpose fabric provides outstanding durability and value.

What about my spinnaker?

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