Sailcloth Definitions

AIRX: Bainbridge's brand name for a new superior range of spinnaker nylon.

ASPECT RATIO: The luff length of a sail divided by foot length. High Aspect sails are tall and thin.

BIAS: A diagonal across a piece of fabric at 45° to the warp and fill.

CARBON: An extremely high modulus fibre used in Bainbridge DIAX-OS-HMC laminates.

COUNT: Number of yarns per inch in the warp or fill of a cloth.

CREEP: The property of fibres to gradually stretch under a constant load.

CRIMP: Length or waviness added to a yarn when it is woven over-and-under in a piece of fabric. Crimp can contribute to the elongation of a fabric under load.

CROSS-CUT: A panel layout where seams run across the sail, perpendicular to the leech.

DACRON: DuPont's trade name for polyester fibre.

DENIER: A system for coding filament yarns and fibres, with low numbers representing finer sizes and higher numbers representing heavier yarns.

DIAX: Bainbridge's brand name for racing laminates with a 45° diagonal scrim.

ELONGATION: The difference between the length of a stretched sample and its initial length; expressed in 1/100th of an inch.

FIBRE: Strand of material used to spin into a yarn.

FILL: The yarn or fibre running across the width of the fabric at right angles to the warp.

FLEX-STRENGTH: The ability of a fibre to resist strength loss having been flexed back and forth.

GSM: Weight in grams of a square metre of cloth.

HAND: Softness or firmness of a fabric.

KEVLAR: DuPont’s trade name for a family of high-strength aramid fibres.

LAMINATE: A layered fabric made by bonding scrims and/or taffetas to one or two plies of film.

LSP: Name for DIAX laminates using Pentex fibres.

MIL: 1/1000th of an inch (North America). For example, 5 mil monofilm is 0.005 inches thick.

MODULUS: The measure of stretch or elasticity of a fabric. High modulus = low stretch.

PBO: An extremely high modulus fibre by Toyobo. Used in Bainbridge DIAX-PBO Plus laminates.

PENTEX: Modified polyester with 250% less stretch.

POLYESTER: A strong, reliable and inexpensive fibre ideal for cruising and low-tech racing laminates, and woven sailcloth.

PRIMARY YARN DIRECTION: The orientation (warp or fill) in which a fabric is the most stretch resistant.

RADIAL: A panel layout where seams and panels radiate out from the corners of the sail.

SAILMAKER’S YARD: A 28.5” x 36” sample area that measures the weight of sailcloth. For example, 6.5 oz. sailcloth means that a 28.5” x 36” sample piece of that sailcloth would weigh 6.5 ounces.

SCRIM: Non woven, formed sheet of yarns held together with resin.

SPECTRA: A highly modified polyethylene fibre developed by Allied Corp and used in Bainbridge SCL-S laminates.

TAFFETA: A light woven fabric used on laminates to add durability and abrasion resistance.

TENACITY: The breaking strength of a yarn or fabric stated in force per unit of the cross-sectional area.

TENSILE STRENGTH: The ability of a fibre, yarn or fabric to resist breaking under tension.

THREADLINE: The direction of the yarns.

TWARON: Family of aramid fibres made by Akzo and used in Bainbridge DIAX-HMT racing laminates.

VECTRAN: LCP fibre made by Hoechst Celanese and used in Bainbridge CL-V laminates.

WARP: The yarn or fibre running the length of a fabric.