

CHALLENGE AILCLOTH

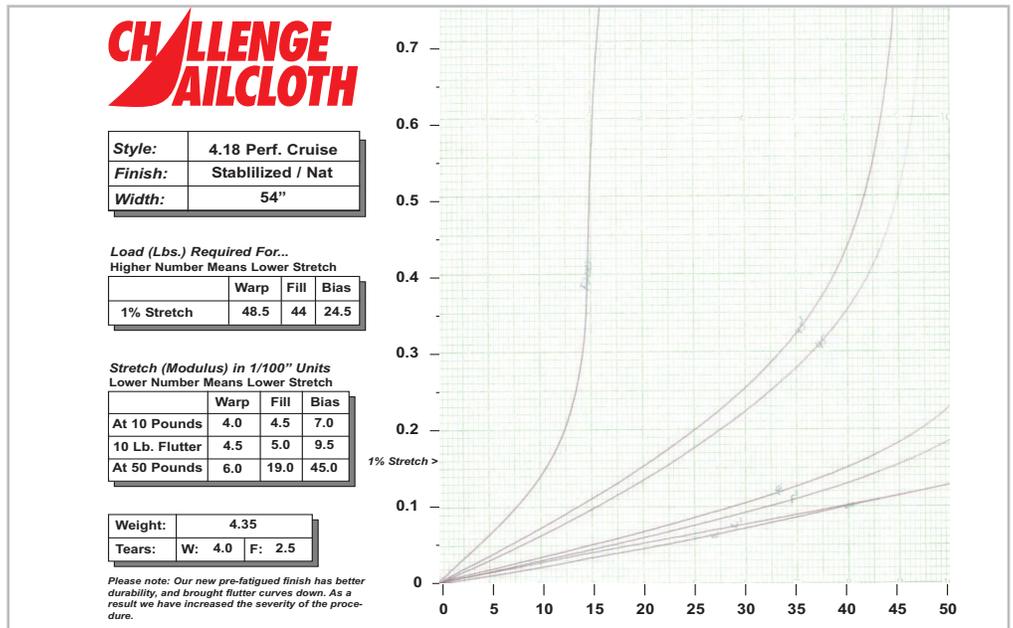
4.18 Performance Cruise



Performance Cruise is the newest line of fabrics designed to fit all cruising needs. They use new higher shrink / higher tenacity warp yarns for higher thread counts and better shape durability, and larger deniers to best resist UV degradation. Constructions are low aspect in light to medium weights, and higher aspect in the heavier styles which experience highest loads. Heavier weight fills are Honeywell 1W70, one of the 2 best sailcloth yarns made. (Other is Fiber 104). We test all yarns using a proprietary MIT Phd. designed sailfiber test. Performance Cruise is woven on the newest looms. Thus weaving quality is second to none

Construction

- Performance Cruise is specifically designed for durable cruising sails.
- 4.18 has almost 160 warp yarns of 150 denier per inch, much higher than any “3.8” or “3.9” style fabric, which generally have warp counts lower than 120. The fill yarn is 250 denier. Actual weight is around 4.35 oz.
- 4.18 has a higher range than most competing fabrics due to its substantially higher total count.
- There is more warp than fill total denier. At low loads warp and fill stretch is almost equal. At very high loads the warp stretches less. 4.18 is an excellent radial andt “ply fabric”.



Finish

- Available in Medium Firm spec of 4-9.
- The fabric is heat-set, shrinking up to 20%. The STABILIZED finish is achieved by immersing the fabric in a bath of suspended resin. The resin is absorbed by the fiber. The cloth is then fed into a long oven where the liquids are driven off, leaving resin solids bonded to fibers. The fabric is shrunk under high heat, further tightening the weave, and calendered at high tonnage to further stabilize the bias.
- Finishing in house: Challenge is the largest American sailcloth manufacturer to process its own fabric.

Applications

- 4.18 is for mains and jibs on boats up to 15', and # 1 genoas on boats up to 20': Crosscut or Radial.

6.68, 7.38, 7.88, 8.88, 9.88, 10.88, and 11.88 have large denier yarns, in proportion to their weight, in both directions. Such massive yarns maximize resistance to UV degradation, tear, breaking and abrasion.

Other Performance Cruise styles have finer weave, and higher yarn counts. The higher number of yarn linkages maximize bias stability and fabric life.