

# CHALLENGE AILCLOTH

## 10.18 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 designed for durable cruising sails. The slightly larger warp yarns provide better warp tear, abrasion, breaking (tensile) strength, and UV resistance than most of the quality weaves
- Actual weight is approximately 10.0 oz.
- 10.18 Performance Cruise has a very high count of 300 x 1300 denier. This construction has considerably more yarn crossings, i.e. finer weave than competing larger 450 or 500 den warps. A finer weave means that bias durability depends more on fiber, less on resin, than do the competing coarser weave cruising fabrics. The result is longer sail shape life.



Style:	10.18 Perf. Cruise
Finish:	Stabilized / Nat
Width:	54"

Load (Lbs.) Required For...  
Higher Number Means Lower Stretch

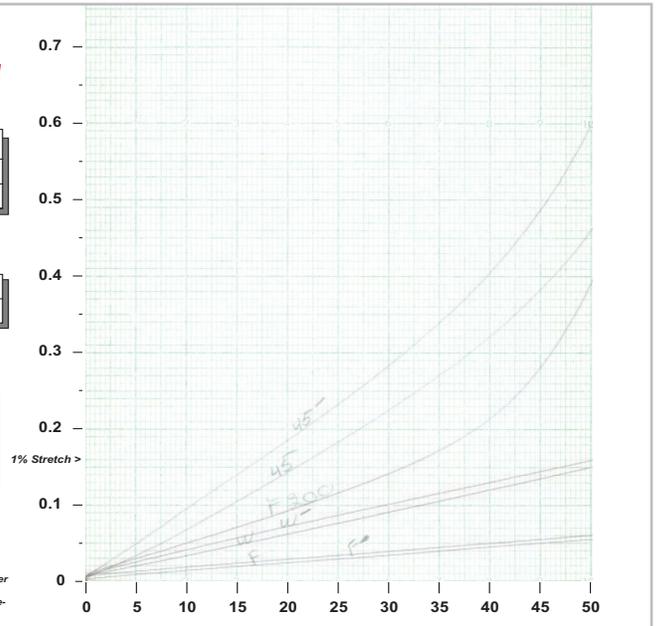
	Warp	Fill	Bias
1% Stretch	53	137	23.5

Stretch (Modulus) in 1/100" Units  
Lower Number Means Lower Stretch

	Warp	Fill	Bias
At 10 Pounds	3	1	7
10 Lb. Flutter	4	1.5	9.5
At 50 Pounds	15	5	46

Weight:	9.56
Tears:	W: 6.6 F: -

Please note: Our new pre-fatigued finish has better durability, and brought flutter curves down. As a result we have increased the severity of the procedure.



### Finish

- Available in Medium Firm spec of 1-9.
- 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.

### Applications

- 10.18 is for cruising mains and # 3 genoas on boats up to 50', heavy # 1 genoas on boats up to 62, # 2 up to 55'.

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.