

Crystalyne

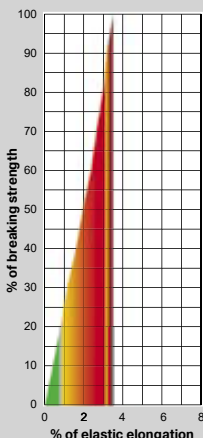
Double Braid



Crystalyne is a double-braided rope constructed with an inner load-bearing core of Vectran Liquid Crystal Polymer (LCP) and has a tough polyester outer sleeve. LCP is more tolerant of bending than other high-modulus fibers and is not as affected by overloading.

Crystalyne exhibits more tension cycles to higher percentages of break than all our other high-modulus offerings. Unlike High Modulus Polyethylene (HMPE) ropes, LCP fiber has little or no tendency to creep and can be used to hold tight tolerances in rope assemblies. Vectran is hydrophobic, meaning it cannot absorb water. This rope is spliced using the same technique as our Maxibraid Plus, resulting in a termination that finishes shorter than conventional splice techniques and remains supple.

Diameter (in)	Spliced Minimum Breaking Strength (lbf)*	Unspliced Minimum Breaking Strength (lbf)**	Average Breaking Strength (lbf)	Weight (lb/100ft)
3/16	3,000	3,300	3,400	1.4
1/4	4,900	5,400	5,500	2.2
5/16	7,700	8,500	8,600	3.0
3/8	11,000	12,000	12,500	4.4
7/16	13,500	15,000	15,000	6.1
1/2	18,000	19,500	20,000	8.5
5/8	26,500	29,500	29,500	12.0
11/16	32,000	35,500	36,000	18.8
3/4	38,000	42,000	42,500	20.0
7/8	50,000	55,000	56,000	24.4
1	64,000	70,000	72,000	33.3
1-1/8	78,000	86,000	87,000	41.6
1-1/4	96,000	105,000	110,000	46.0



Energy Absorption

The colored area under the curve represents the rope's ability to do "work" and is expressed in foot-pounds per pound of rope in tension.

■ Green working 187 ft. lbs./lb.

■ Red ultimate 3,403 ft. lbs./lb.

Dielectric Strength: Crystalyne's core of LCP is hydrophobic, so its lack of core moisture gain is an advantage, as is its high melt point of 620°F (325°C). The polyester sleeve governs the leakage, which is 100 micro-amperes at 100kV per Yale Method 712-1701 Rev 1 "Routine Production Test."

Approved Splice Technique: #10015110, #10018007.

■ Minimum Break Strength

Specific Gravity: 1.40

*Knots and abrupt bends significantly reduce the strength of all ropes and lower maximum working load.

**Working load is based on static or moderately dynamic lifting/ pulling operations. Instantaneous changes in load, up or down, in excess of 10% of the rope's rated working load constitute hazardous shock load and would void the normal working-load recommendation. Consult Yale Cordage for guidelines for working loads and the safe use of rope.