



## Ultrax

**Ultrax** is a 12-strand single braid of Ultra High Molecular Weight Polyethylene UHMWPE fiber enhanced with Yale's Maxijacket High Performance coating, which supplies superior abrasion resistance. The braid angles and twist level of Ultrax are designed to optimize break strength and keep stretch low. UHMWPE is the most forgiving

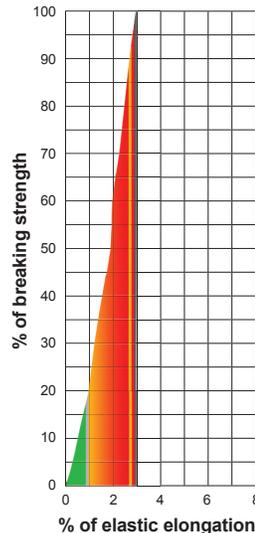
high-modulus fiber, giving better sheave-cycling capabilities than other high-tech fibers. Ultrax has zero water absorption and maintains its flexibility even in freezing conditions. As is the case for most Yale ropes, the strengths shown in the charts are for spliced ropes.

### Specifications

Diameter		Average Spliced Break Strength*		Minimum Spliced Break Strength*		Maximum** Working Load 5:1		Weight	
Inches	(mm)	Lbs	Kg	Lbs	Kg	Lbs	Kg	Lbs/100ft	Kg/100m
1/16	(2)	800	360	720	324	160	72	0.1	0.2
1/8	(3)	2,200	995	1,980	896	440	199	0.3	0.5
5/32	(4)	3,400	1,540	3,060	1,386	680	308	0.5	0.7
3/16	(5)	6,000	2,720	5,400	2,448	1,200	544	1.0	1.5
1/4	(6)	10,000	4,540	9,000	4,086	2,000	908	1.7	2.5
5/16	(8)	13,500	6,125	12,150	5,513	2,700	1,225	2.4	3.6
3/8	(10)	20,000	9,080	18,000	8,172	4,000	1,816	3.5	5.2
7/16	(11)	25,700	11,665	23,130	10,499	5,140	2,333	4.6	6.8
1/2	(13)	37,400	16,975	33,660	15,278	7,480	3,395	6.2	9.2
9/16	(14)	45,000	20,430	40,500	18,387	9,000	4,086	7.5	11.2
5/8	(16)	53,000	24,060	47,700	21,654	10,600	4,812	9.0	13.4
3/4	(19)	75,000	34,050	67,500	30,645	15,000	6,810	12.2	18.2
7/8	(22)	98,000	44,490	88,200	40,041	19,600	8,898	17.6	26.2
1	(25)	120,000	54,480	108,000	49,032	24,000	10,896	21.2	31.6
1-1/8	(29)	148,000	67,190	133,200	60,471	29,600	13,438	28.7	42.7
1-1/4	(32)	172,000	78,085	154,800	70,277	34,400	15,617	36.1	53.8
1-5/16	(33)	184,000	83,535	165,600	75,182	36,800	16,707	41.8	62.2
1-1/2	(38)	230,000	104,420	207,000	93,978	46,000	20,884	57.0	84.9
1-5/8	(41)	285,000	129,390	256,500	116,451	57,000	25,878	65.0	96.8
1-3/4	(44)	330,000	149,820	297,000	134,838	66,000	29,964	78.0	116.2
2	(51)	390,000	177,060	351,000	159,354	78,000	35,412	92.0	137.0
2-1/8	(54)	430,000	195,220	387,000	175,698	86,000	39,044	103.5	154.1
2-1/4	(57)	480,000	217,920	432,000	196,128	96,000	43,584	115.0	171.2
2-1/2	(64)	530,000	240,620	477,000	216,558	106,000	48,124	139.0	207.0
2-5/8	(67)	598,000	271,490	538,200	244,341	119,600	54,298	158.0	235.3
2-3/4	(70)	660,000	299,640	594,000	269,676	132,000	59,928	177.0	263.6
3	(76)	760,000	345,040	684,000	310,536	152,000	69,008	203.0	302.3

\* 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.



### 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 318 ft. lbs./lb.

■ Red ultimate 8,300 ft. lbs./lb.

**Dielectric Strength:** The maximum allowable leakage for clean, dry Ultrax is 75 micro-amperes when tested at 100kV per Yale Method 712-1701 Rev 1 "Routine Production Test." Absorbed and entrained moisture or impurities will increase rope's conductivity dramatically.

Approved Splice Technique: #10015109, #10018009.

- Maximum Working Load
- Minimum Break Strength
- Average Break Strength

Specific Gravity: 0.97

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