



## Polydyne

**Polydyne** is a double-braided rope that utilizes a polyester sleeve over a nylon core. Despite the dissimilar stretch characteristics of these fibers, Yale engineers have produced constructions where both fibers contribute. The resulting rope has high breaking strength and more stretch in its working load range, which in many applications is a plus. Polydyne is up to taking more dynamic abuse

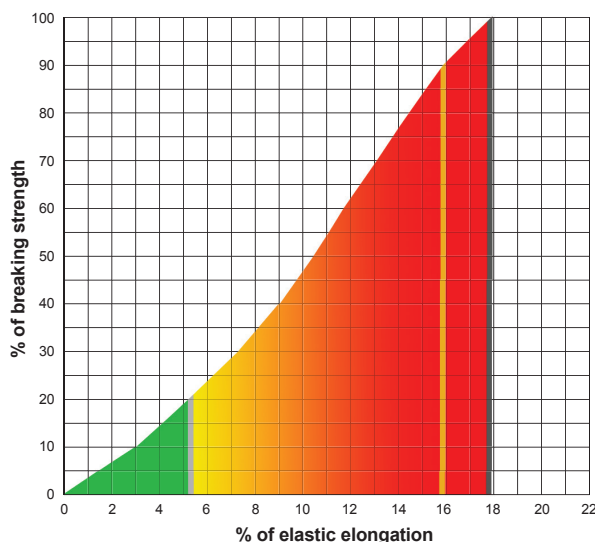
without being degraded prematurely. Take special note of the working energy-absorption rating, which is the amount of energy a rope absorbs before reaching its working load. The ultimate energy absorption of this rope is also correspondingly high. All this and a tough polyester jacket make this a long-wearing rope with extraordinary dynamic capabilities.

### 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
1/4	(6)	2,500	1,135	2,250	1,022	500	227	1.9	2.8
5/16	(8)	3,800	1,725	3,420	1,553	760	345	2.8	4.2
3/8	(10)	5,000	2,270	4,500	2,043	1,000	454	4.4	6.6
7/16	(11)	7,500	3,405	6,750	3,065	1,500	681	5.8	8.6
1/2	(13)	11,000	4,990	9,900	4,491	2,200	998	7.6	11.3
9/16	(14)	15,000	6,810	13,500	6,129	3,000	1,362	9.7	14.4
5/8	(16)	18,900	8,580	17,010	7,722	3,780	1,716	13.6	20.3
3/4	(19)	26,000	11,800	23,400	10,620	5,200	2,360	18.5	27.5
7/8	(22)	33,600	15,250	30,240	13,725	6,720	3,050	24.4	36.3
1	(25)	42,000	19,065	37,800	17,159	8,400	3,813	31.5	46.9
1-1/8	(29)	52,000	23,605	46,800	21,245	10,400	4,721	41.5	61.8
1-1/4	(32)	65,000	29,510	58,500	26,559	13,000	5,902	50.8	75.6
1-5/16	(33)	77,000	34,955	69,300	31,460	15,400	6,991	55.0	81.9
1-1/2	(38)	90,000	40,860	81,000	36,774	18,000	8,172	66.0	98.3

\* 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 576 ft. lbs./lb.
- Red ultimate 11,187 ft. lbs./lb..

**Dielectric Strength:** The maximum allowable leakage for clean, dry Polydyne is 500 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: #10017200.

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

Specific Gravity: 1.24