



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.

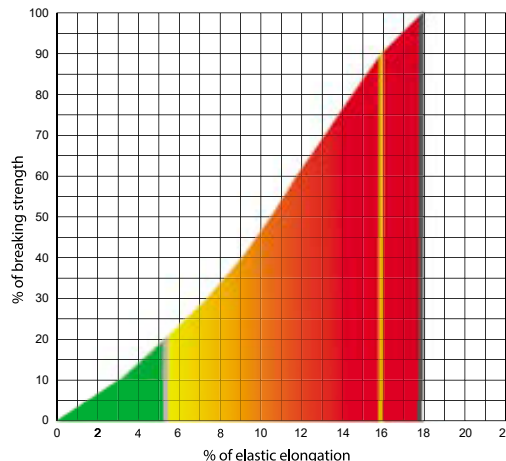
The resulting rope has high breaking strength and more stretch in its working load range, which in many applications is a plus. Polydyne is up to taking more dynamic abuse without being degraded prematurely. Take special note of the working energy-absorption rating, which is the amount of energy a rope 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 Inches	Diameter mm	Weight Lbs/100ft	Weight Kg/100m	Average Spliced Break Strength* Lbs	Average Spliced Break Strength* Kg	Minimum Spliced Break Strength* Lbs	Minimum Spliced Break Strength* Kg	Maximum** Work Load 5:1 Lbs	Maximum** Work Load 5:1 Kg
1/4	6	1.9	2.8	2,875	1,305	2,588	1,175	575	261
5/16	8	2.8	4.2	4,370	1,980	3,933	1,782	874	396
3/8	10	4.4	6.6	5,750	2,610	5,175	2,349	1,150	522
7/16	11	5.8	8.6	8,625	3,915	7,763	3,524	1,725	783
1/2	13	7.6	11.3	13,280	6,025	11,952	5,423	2,656	1,205
9/16	14	9.7	14.4	15,950	7,240	14,355	6,516	3,190	1,448
5/8	16	13.6	20.3	22,300	10,120	20,070	9,108	4,460	2,024
3/4	19	18.5	27.5	30,360	13,780	27,324	12,402	6,072	2,756
7/8	22	24.4	36.3	38,640	17,540	34,776	15,786	7,728	3,508
1	25	31.5	46.9	48,300	21,925	43,470	19,733	9,660	4,385
1 1/8	29	41.5	61.8	57,200	25,965	51,480	23,369	11,440	5,193
1 1/4	32	50.8	75.6	71,500	32,460	64,350	29,214	14,300	6,492
1 5/16	33	55.0	81.9	84,700	38,450	76,230	34,605	16,940	7,690
1 1/2	38	66.0	98.3	99,000	44,945	89,100	40,451	19,800	8,989

* 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