

Nylon and Polyester Ropes

Nylon						Polyester				
Diameter (mm)	Nylon Mass (kg/100m)	Nylon Min Breaking Load unspliced (T)	Nylon Min Breaking Load unspliced (kN)	Nylon Min Breaking Load spliced (T)	Nylon Min Breaking Load spliced (kN)	Polyester Mass (kg/100m)	Polyester Min Breaking Load unspliced (T)	Polyester Min Breaking Load unspliced (kN)	Polyester Min Breaking Load spliced (T)	Polyester Min Breaking Load spliced (kN)
6	2.25	1.15	7.4	0.7	6.7	2.7	1.11	7	0.6	6.3
8	4	1.35	13.2	1.2	11.9	4.8	1.28	12.6	1.2	11.3
10	6.2	2.08	20.4	1.9	18.4	7.6	2	19.6	1.8	17.6
12	8.9	3	29.4	2.7	26.5	11	2.9	28	2.6	25.2
14	12.2	4.1	40.2	3.7	36.2	14.8	4	39.2	3.6	35.3
16	15.8	5.3	52	4.8	46.8	19.5	5.1	50	4.6	45.0
18	20	6.7	65.7	6.0	59.1	24.5	6.8	67	6.1	60.3
20	24.5	8.3	81.4	7.5	73.3	30.3	8.1	79	7.3	71.1
22	30	10	98	9.0	88.2	36.7	9.3	91	8.4	81.9
24	35.5	12	118	10.8	106.2	43.7	11.8	116	10.6	104.4
26	42	14	137	12.6	123.3	51.2	13.9	136	12.5	122.4
28	48.5	15.8	155	14.2	139.5	59.4	16	157	14.4	141.3
30	55.5	17.7	174	15.9	156.6	68.2	17.6	173	15.8	155.7
32	63	20	196	18.0	176.4	77.8	20.9	205	18.8	184.5
34	71	22.5	221	20.3	198.9	87.9	23	226	20.7	203.4
36	80	24.9	244	22.4	219.6	98.2	27.8	273	25	245.7
38	89	27.4	269	24.7	242.1	109.5	30.6	300	27.5	270.0
40	99	30	294	27.0	264.6	121	34.5	338	31.1	304.2
44	120	35	351	31.5	315.9	147	41	402	36.9	361.8
48	142	42	412	37.8	370.8	175	47.5	466	42.8	419.4
52	166	48.8	479	43.9	431.1	205	55.4	543	49.9	488.7
56	193	56	549	50.4	494.1	238	64.5	633	58.1	569.7
60	221	63.8	626	57.4	563.4	273	71.7	703	64.5	632.7
64	252	72	706	64.8	635.4	311	82.7	811	74.4	729.9
68	284	80.1	792	72.1	712.8	354	94.7	929	85.2	836.1
72	319	90	882	81.0	793.8	393	107	1050	96.3	945.0
76	355	100	979	90.0	881.1	440	119	1167	107.1	1050.3
80	394	110	1078	99.0	970.2	485	130	1275	117.0	1147.5
88	477	131	1284	117.9	1155.6	587	159	1560	143.1	1404.0
96	568	154	1510	138.6	1359.0	699	184	1805	165.6	1624.5
104	666	182	1786	163.8	1607.4	820	222	2177	199.8	1959.3
112	772	210	2061	189.0	1854.9	950	256	2510	230.4	2259.0

Note: Table measurements may vary by model. Contact us for details. Posidonia is not liable for discrepancies.

Nylon and Polyester Ropes

General Information:

Nylon and polyester ropes provide the highest breaking strength among common synthetic fiber ropes.

Due to their excellent properties, both types are used in demanding applications where a high-grade rope is required.

The usual constructions are:

- **Multifilament 3-strand twisted**
- **8-strand plaited**
- **Multistrand braided**

Multifilament ropes are soft to handle.

The standard color is **white**, but other colors are available upon request.

Both nylon and polyester ropes are **rot-proof** and **highly abrasion-resistant**.

Certifications:



BUREAU
VERITAS



Lloyd's Register
Marine



Properties of Nylon (Polyamide):

- **Relative density:** 1.14
- **Temperature resistance:** Can be used below 0°C
- **Melting point:** 218°C (Nylon 6)
- **UV resistance:** Excellent, fully stabilized
- **Extension:** Breaking stretch of 43%
- **Energy storage:** A lot of energy is stored in the rope - mind the security of people
- **Flexibility:** Soft and flexible, but hardens with water absorption (~10%)
- **Chemical resistance:** Good resistance to alkalis, limited resistance to acids

Properties of Polyester:

- **Relative density:** 1.38
- **Temperature resistance:** Flexible down to -40°C
- **Melting point:** 260°C
- **UV resistance:** Excellent, fully stabilized
- **Extension:** Breaking stretch of ~24% (wet or dry)
- **Flexibility:** Remains flexible - no water absorption
- **Chemical resistance:** Good resistance to alkalis - limited to acids
- Length measured under reference tension according to **EN ISO 9554**

Typical Applications:

- **Hawsers for ship mooring**
- **Towing and mooring springs**
- **General-purpose applications**

Common Constructions:



Nylon 3-strand twisted



Polyester 3-strand twisted