

Nylon and polyester

Nylon and polyester ropes provide the highest breaking strength out of common synthetic fibre ropes. Due to the excellent properties both qualities are used when heavy circumstances require a high grade rope. The usual constructions are multifilament 3-strand twisted, 8-strand plaited and multistrand braided. Multifilament ropes feel soft when handling.

The basic colour is white. Other colours on request. Both qualities are rot-proof and highly abrasion resistant.

- High abrasion resistance
- Excellent weight/tenacity ratio
- Easy to splice
- Rot-proof



Nylon 3-strand twisted



Nylon 8-strand plaited



Nylon braided



Polyester 3-strand twisted

Construction

3-strand twisted

- Diameter/mm marked on each coil
- Coils or reels of 100-200-220m



8-strand plaited (torque free)

- Circumference/inch marked on each coil
- Coils of 100-200-220m
- Hawsers: spliced and protected mooring eyes each end



Braided (torque free)

- Plastic spools of 100m



Other constructions on request

Properties

Nylon (Polyamide)

Relative density	1,14
Temperature resistance	Can be used below 0° C Melting point 218° C (Nylon 6)
UV resistance	Excellent - fully stabilised
Extension	Breaking stretch of 43%
Flexibility	A lot of energy is stored in the rope - mind the security of people Soft and fl exible - becomes harder in use (water uptake ±10%)
Chemical resistance	Good resistance to alkalis - limited to acids

Polyester

Relative density	1,38
Temperature resistance	Flexible down to -40° C Melting point 260° C
UV resistance	Excellent - fully stabilised
Extension	Breaking stretch of ± 24% wet or dry
Flexibility	Remains flexible - no water absorption
Chemical resistance	Good - except to alkalis
Length measured under reference tension according to EN ISO 9554	

Typical applications

Hawsers for ship's mooring - Towing and mooring springs - General purpose

Nylon and Polyester 3- and 8-strand

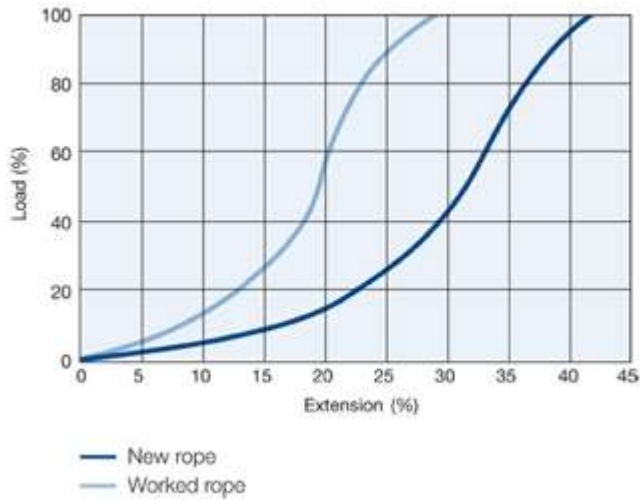
Diam. Ø	Circ.	NYLON			POLYESTER		
		Mass	Min. breaking load		Mass	Min. breaking load	
mm	inch	kg/100m	T	kN	kg/100m	T	kN
6	-	2,25	0,75	7,4	2,7	0,71	7
8	1	4	1,35	13,2	4,8	1,28	12,6
10	1 ¼	6,2	2,08	20,4	7,6	2	19,6
12	1 ½	8,9	3	29,4	11	2,9	28
14	1 ¾	12,2	4,1	40,2	14,8	4	39,2
16	2	15,8	5,3	52	19,5	5,1	50
18	2 ¼	20	6,7	65,7	24,5	6,8	67
20	2 ½	24,5	8,3	81,4	30,3	8,1	79
22	2 ¾	30	10	98	36,7	9,3	91
24	3	35,5	12	118	43,7	11,8	116
26	-	42	14	137	51,2	13,9	136
28	3 ½	48,5	15,8	155	59,4	16	157
30	-	55,5	17,7	174	68,2	17,6	173
32	4	63	20	196	77,8	20,9	205
34	-	71	22,5	221	87,9	23	226
36	4 ½	80	24,9	244	98,2	27,8	273
38	-	89	27,4	269	109,5	30,6	300
40	5	99	30	294	121	34,5	338

44	5 ½	120	35	351	147	41	402
48	6	142	42	412	175	47,5	466
52	6 ½	166	48,8	479	205	55,4	543
56	7	193	56	549	238	64,5	633
60	7 ½	221	63,8	626	273	71,7	703
64	8	252	72	706	311	82,7	811
68	8 ½	284	80,1	792	354	94,7	929
72	9	319	90	882	393	107	1050
76	9 ½	355	100	979	440	119	1167
80	10	394	110	1078	485	130	1275
88	11	477	131	1284	587	159	1560
96	12	568	154	1510	699	184	1805
104	13	666	182	1786	820	222	2177
112	14	772	210	2061	950	256	2510
120	15	887	240	2355	1090	290v2844	
128	16	1010	272	2668	1240	326	3197
136	17	1140	306	3002	1400	367	3599
144	18	1280	344	3375	1570	401	3932
160	20	1580	422	4142	1940	487	4776

Braided Nylon and Polyester

Diam. Ø	NYLON			POLYESTER		
	Mass	Min. breaking load		Mass	Min. breaking load	
	kg/100m	T	kN	kg/100m	T	kN
1	0,1	0,05	0,52	0,12	0,04	0,44
2	0,18	0,1	0,94	0,22	0,08	0,8
3	0,51	0,19	1,9	0,61	0,16	1,56
4	0,9	0,34	3,3	1,1	0,29	2,8
5	1,25	0,47	4,6	1,5	0,39	3,85
6	2	0,74	7,3	2,44	0,64	6,25
8	3,58	1,34	13,1	4,35	1,13	11,1
10	5,6	2,09	20,5	6,8	1,77	17,4
12	8,1	3	29,2	9,8	2,5	24,7
14	10,5	3,9	37,8	13,3	3,4	33,5
16	14,3	5,2	51,5	17,4	4,5	43,9
18	18,1	6,5	63,4	22	5,5	53,9
20	22,3	7,9	77,9	27,2	6,8	66,5
22	27	9,4	91,8	32,8	8	78,1
24	32,2	11,2	109,5	39	9,5	92,8

Load VS Extension Nylon



Load VS Extension Polyester

