MoorLine

Bekaert

Unlock the advantages of synthetic mooring

More reliable than chain

Reduces total cost of ownership

Tried & tested in oil & gas

Construction

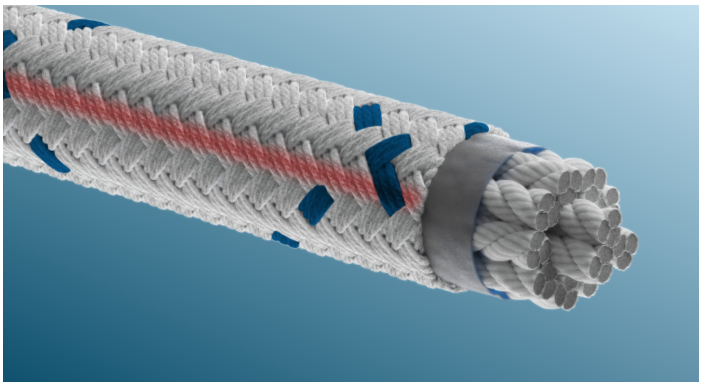
3-strand parallel laid sub rope with integrated **5 micron particle filter** and protective **braided jacket**

Material

Can be manufactured from high quality **polyester**, **nylon** or **HMPE** fibres

Applications

Suitable for **permanent mooring** applications, especially **floating offshore wind**

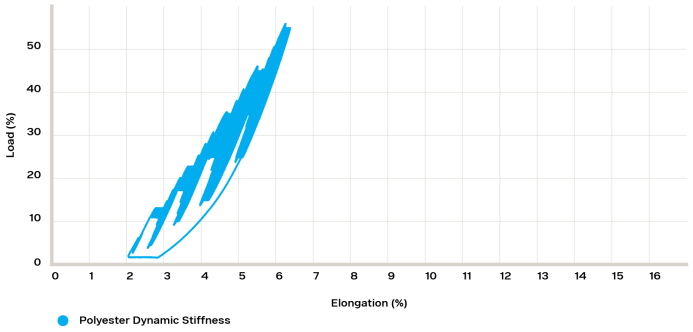


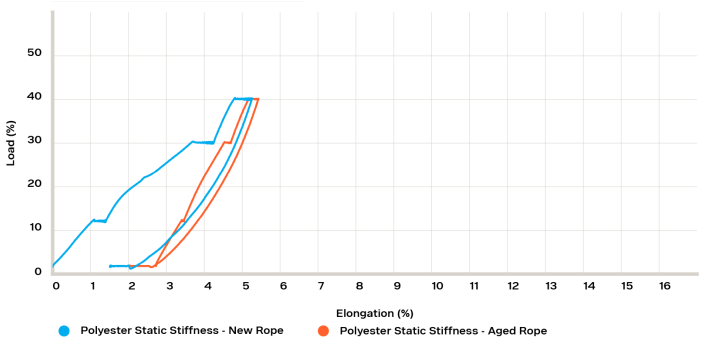
Characteristics | Polyester

The technological advancement of synthetic fibre ropes was a significant breakthrough for new mooring solutions, with polyester being at the forefront. The reduced weight and stiffness characteristics compared to chain and steel wire rope, combined with the high strength conversion of a parallel strand rope construction, creates an ideal solution for deepwater mooring applications.

Specific gravity: **1.38 (sub ropes only)**

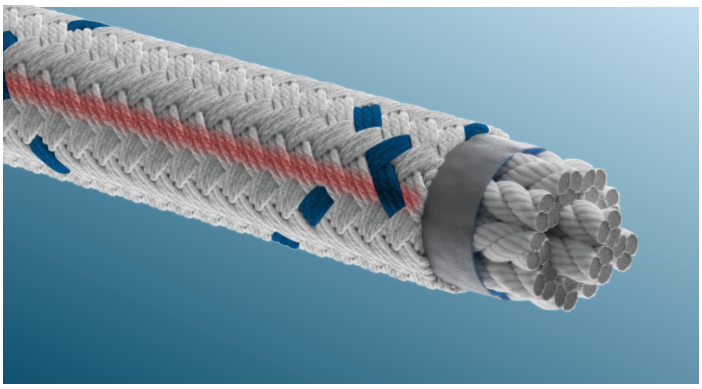
Melting point: **260°C**





Nominal Diameter	Linear Density				Minimum Breaking Strength (MBS)		
	In Air		In Water		Spliced		
mm	kg / m	lb / ft	kg / m	lb / ft	kN	ton	lbs
74	4.19	2.81	1.07	0.72	1,681	171	377,791
82	5.20	3.49	1.33	0.89	2,040	208	458,543
90	6.28	4.22	1.60	1.08	2,463	251	553,637
98	7.47	5.02	1.91	1.28	2,921	298	656,554
106	8.73	5.86	2.23	1.50	3,390	346	762,080
114	9.84	6.62	2.52	1.69	3,911	399	879,318
122	11.02	7.40	2.82	1.89	4,433	452	996,555
130	12.38	8.32	3.17	2.13	5,065	516	1,138,545
138	13.77	9.25	3.52	2.37	5,702	581	1,281,838
146	15.25	10.25	3.90	2.62	6,374	650	1,432,954
154	16.72	11.23	4.28	2.87	7,041	718	1,582,767
162	18.47	12.41	4.73	3.18	7,823	798	1,758,635
170	20.11	13.51	5.15	3.46	8,605	878	1,934,503
178	21.67	14.56	5.55	3.73	9,329	951	2,097,332
186	23.77	15.97	6.08	4.09	10,326	1,053	2,321,399
194	25.62	17.21	6.56	4.41	11,195	1,142	2,516,803
202	27.35	18.38	7.00	4.71	11,995	1,223	2,696,560
210	29.53	19.84	7.56	5.08	13,038	1,330	2,931,058
218	31.74	21.33	8.13	5.46	14,081	1,436	3,165,534
226	33.98	22.83	8.70	5.85	15,137	1,544	3,402,955
234	36.25	24.36	9.28	6.24	16,193	1,651	3,640,376
242	38.64	25.96	9.90	6.65	17,326	1,767	3,895,039
250	40.85	27.45	10.46	7.03	18,392	1,876	4,134,753
258	43.59	29.29	11.16	7.50	19,713	2,010	4,431,748
266	46.15	31.01	11.82	7.94	20,930	2,134	4,705,318
274	48.80	32.79	12.50	8.40	22,178	2,262	4,985,722
282	51.37	34.52	13.16	8.84	23,390	2,385	5,258,303
290	53.90	36.22	13.81	9.28	24,642	2,513	5,539,696
298	57.02	38.31	14.61	9.82	26,122	2,664	5,872,526
306	60.40	40.59	15.47	10.40	27,722	2,827	6,232,085
314	63.34	42.56	16.23	10.90	29,205	2,978	6,565,566
322	66.14	44.45	16.95	11.39	30,509	3,111	6,858,672

Values are indicative and subject to change without prior notification.
Our ropes are specifically designed to fulfil project requirements therefore variations in diameter and linear density can be expected.
Diameter refers to the nominal diameter and not the actual diameter of the rope (this will change depending on the condition, tension, and historical highest tension of the rope).

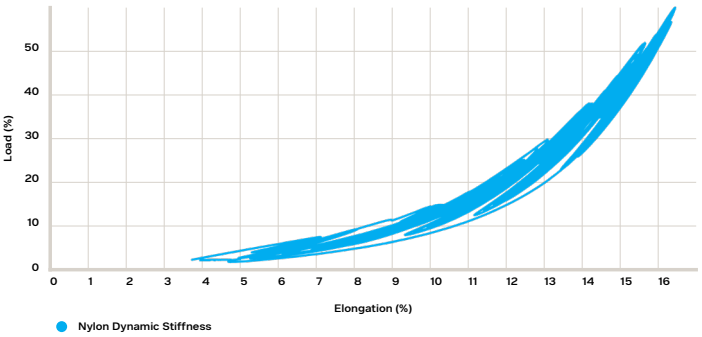


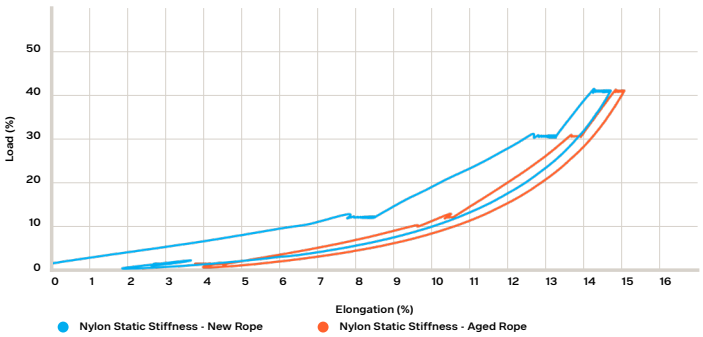
Characteristics | Nylon

Floating offshore wind turbines create the requirement for new mooring solutions suitable for shallow water depths. Nylon offers even lower stiffness characteristics than polyester therefore further reducing mooring line loads, improving on compliance as a result.

Specific gravity: **1.14 (sub ropes only)**

Melting point: **215°C**





Nominal Diameter	Linear Density				Minimum Breaking Strength (MBS)		
	In Air		In Water		Spliced		
mm	kg / m	lb / ft	kg / m	lb / ft	kN	ton	lbs
72	3.19	2.15	0.47	0.31	1,128	115	253,609
80	4.02	2.70	0.60	0.40	1,388	142	312,134
88	4.92	3.30	0.73	0.49	1,698	173	381,716
96	5.81	3.90	0.86	0.58	2,018	206	453,696
104	6.80	4.57	1.01	0.68	2,348	239	527,858
112	7.72	5.18	1.13	0.76	2,496	254	561,037
120	8.70	5.85	1.25	0.84	3,153	322	708,900
128	9.69	6.51	1.37	0.92	3,580	365	804,875
136	10.84	7.28	1.52	1.02	4,056	414	911,755
144	11.98	8.05	1.66	1.12	4,536	463	1,019,726
152	13.15	8.84	1.80	1.21	5,045	514	1,134,241
160	14.45	9.71	1.97	1.32	5,579	569	1,254,208
168	15.71	10.55	2.12	1.42	6,137	626	1,379,629
176	17.18	11.54	2.30	1.54	6,780	691	1,524,136
184	18.48	12.42	2.45	1.64	7,368	751	1,656,373
192	20.07	13.48	2.64	1.77	8,056	821	1,810,968
200	21.61	14.52	2.82	1.89	8,761	893	1,969,652
208	23.04	15.48	2.99	2.01	9,373	956	2,107,070
216	24.92	16.74	3.21	2.16	10,217	1,042	2,296,837
224	26.51	17.81	3.40	2.29	10,915	1,113	2,453,886
232	28.50	19.15	3.64	2.45	11,789	1,202	2,650,197
240	30.06	20.20	3.82	2.57	12,497	1,274	2,809,427
248	32.13	21.59	4.06	2.73	13,448	1,371	3,023,187
256	33.96	22.82	4.28	2.87	14,263	1,454	3,206,411
264	36.25	24.36	4.55	3.05	15,282	1,558	3,435,440
272	38.06	25.58	4.76	3.20	16,068	1,638	3,612,120
280	40.34	27.11	5.03	3.38	17,115	1,745	3,847,693
288	42.39	28.48	5.25	3.53	18,076	1,843	4,063,635
296	44.80	30.10	5.53	3.72	19,157	1,953	4,306,570
304	47.06	31.63	5.80	3.90	20,172	2,057	4,534,781
312	49.00	32.93	6.01	4.04	21,089	2,150	4,740,908
320	51.69	34.74	6.32	4.24	22,316	2,276	5,016,833

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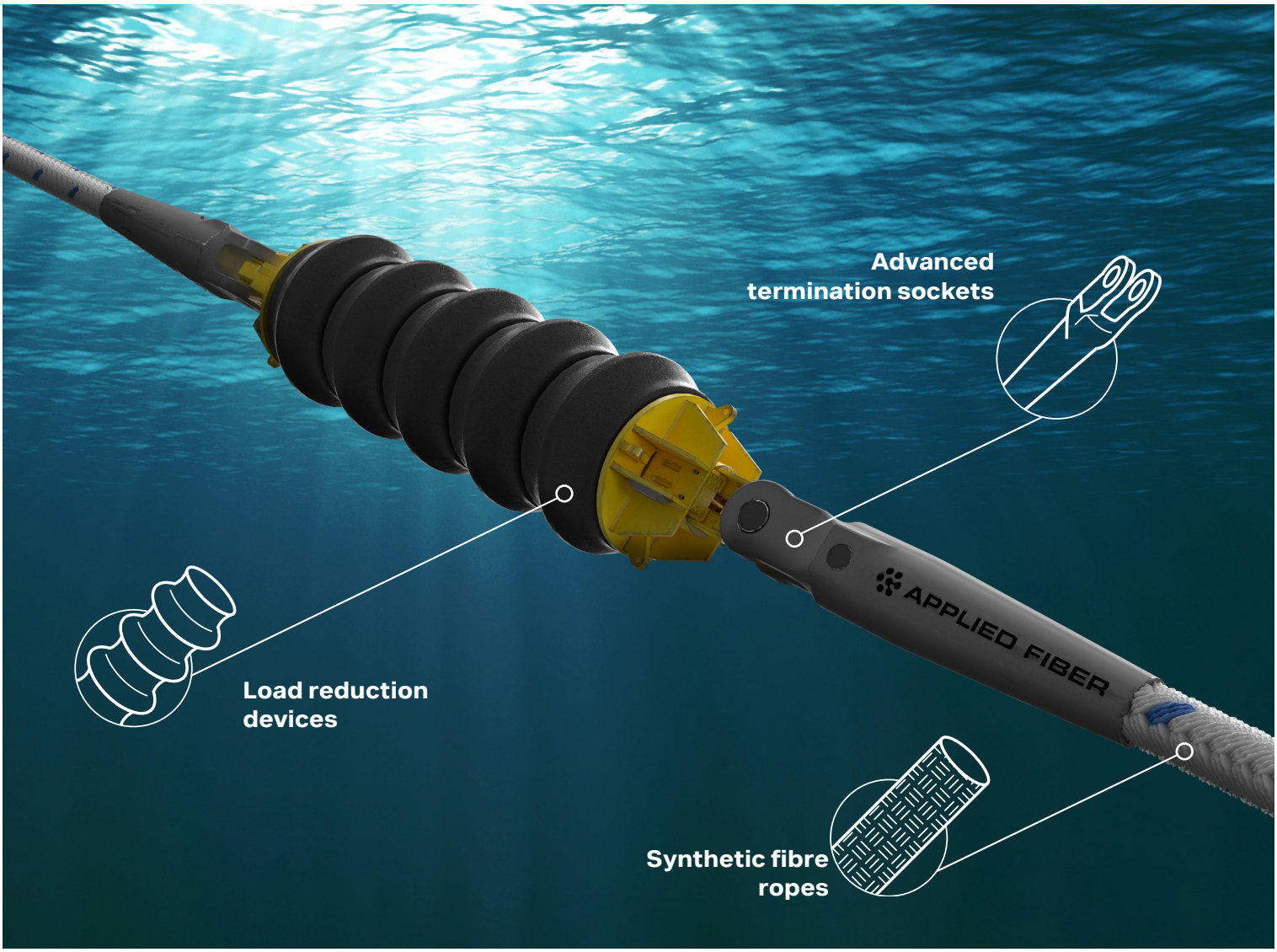
Comparison

Product	Diameter at 900t MBS	Linear Weight in Air	Static Modulus x MBS	Dynamic Modulus x MBS
	mm	kg / m		
Spiral Strand - Steel	90	42.0	90-120	-
MoorLine Polyester	178	20.4	10-16	20-35
MoorLine Nylon	176	20.3	1-10	5-20
MoorLine HMPE	115	10.0	50-70	60-100
Steel / Fibre Hybrid	104	41.0	50-70	-

Our concept | An optimised mooring solution



TFI Marine

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