

TUFFLEX® LITE

Tufflex® Lite offers a high strength to weight ratio and is an excellent replacement for heavier polyester lines. It's unique blend of polyester and polypropylene in each strand makes for a highly efficient construction. Tufflex Lite is torque balanced, has excellent wear resistance, and is one of the quickest ropes to splice.

Tufflex Lite is an excellent choice as mooring, tie-up and pendant lines, tug assist lines and for general purpose heavy marine applications.

Features & Benefits

- Low stretch
- High strength
- Torque free
- Easy splicing
- Soft hand
- Excellent abrasion resistance
- Lighter than 100% polyester ropes

Applications

- Vessel mooring lines
- Tug assist lines
- General purpose heavy marine applications

Type approved product



Size Dia.		Line Linear Density (LLD)	Coil Weight	Minimum Break Force		Line Design Break Force (LDBF)	
				Unspliced		Spliced	
inch	mm	kg/m	kg/220m	Ton	kN	Ton	kN
13/16	20	0.20	44	7.0	69	6.3	62
1	24	0.29	64	10.1	99	9.1	89
1-1/16	26	0.34	74	11.8	116	10.6	104
1-1/8	28	0.39	86	13.7	134	12.3	121
1-1/4	30	0.45	98	15.7	154	14.1	138
1-5/16	32	0.50	111	17.9	175	16.1	158
1-1/2	36	0.64	141	24.0	235	21.6	212
1-5/8	40	0.79	174	29.1	285	26.2	257
1-3/4	44	0.96	212	37.3	366	33.6	329
2	48	1.15	252	44.4	435	40.0	392
2-1/8	52	1.34	295	51.6	506	46.4	455
2-5/16	56	1.56	343	59.2	580	53.3	523
2-1/2	60	1.80	395	67.4	661	60.7	595
2-5/8	64	2.04	448	75.9	744	68.3	670
2-3/4	68	2.30	505	85.2	835	76.7	752
3	72	2.57	566	91.6	898	82.4	808
3-1/8	76	2.87	632	103.4	1014	93.1	913
3-1/4	80	3.19	701	116.0	1137	104.4	1024
3-3/8	84	3.52	774	127.7	1252	114.9	1126
3-5/8	88	3.86	850	140.0	1373	126.0	1235
3-3/4	92	4.21	927	152.5	1495	137.3	1346
3-7/8	94	4.40	967	158.9	1558	143.0	1402
4	96	4.58	1007	165.5	1623	149.0	1461
4-1/8	100	4.98	1096	178.9	1754	161.0	1578
4-1/4	104	5.40	1189	192.8	1890	173.5	1701
4-1/2	108	5.83	1283	207.5	2034	186.8	1831
4-5/8	112	6.27	1380	222.7	2183	200.4	1965
4-3/4	116	6.73	1480	238.6	2339	214.7	2105
5	120	7.20	1584	255.1	2501	229.6	2251

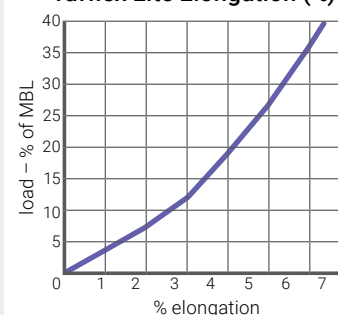
Tensile Strengths are determined in accordance with Cordage Institute 1500, Test Methods for Fiber Rope. Weights are calculated at linear density under standard preload (200d²) plus 5%. Additional sizes available upon request. Please visit cortlandinternational.com or contact your sales representative for full product data sheets.

Technical Information

Specific gravity	0.98*
Melting point	329°F (165°C)
Critical temp.	140°F (60°C)
Coefficient of friction	0.12–0.15*
Elongation at break	15–20%
Fiber water absorption	0–1%
UV resistance	good
Wet abrasion	good
Dry abrasion	good

* value based on data supplied by the fiber manufacturer for new, dry fiber

Tufflex Lite Elongation (%)



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Rope Specifications

Minimum Tensile Strength Minimum tensile strengths shown are for new (unused) rope and will decrease after use. All tests are performed in accordance with Cordage Institute Standard CI 1500-2. The rope strength will be reduced after use due to heat, abrasion, ultraviolet or chemical exposure. The tensile strengths may be further reduced by up to 50% as a result of knots or kinks. Minimum tensile strengths are defined as two standard deviations (typical about 10%) below the average.

Maximum Working Loads Maximum working loads are determined by dividing the tensile strength by the safety factor. The safety factor is a function of the physical properties of the rope, the age and history of the rope, the type of service it will be subjected to and the risks involved if failure occurs. For a rope manufacturer to give blanket working load recommendations would be like a car manufacturer giving the "safe driving speed" of their cars. Obviously the conditions of use far outweigh the design characteristics of the rope. Typically safety factors vary from 3:1 (for new rope used in applications with uniform loading and where failure would cause little or no risk to equipment or personnel) to 20:1 (for conditions involving moderate shock loading, possibility of snags or kinks or where failure could cause severe risk to equipment or personnel).

Rope Weights Rope weights shown are average and may vary plus or minus 5%.

Working Elongation Working elongation is shown from a preload tension of 200 times the diameter squared per the Cordage Institute Standard.

Special Requirements

Factory Splicing Various types are available for all of our ropes. Splices can be provided with various types of chafe protection or coatings.

Custom Lengths Special constructions are available on request.

Rope Terminations Cortland International can provide custom terminations such as thimbles, links, rings and custom hardware. Terminations are available in plastic, bronze, stainless steel and galvanized steel. Please call, or email your requirements to contact@cortlandinternational.com for a quotation.

Special Coatings Coatings such as polyurethane, polyethylene and vinylesters may be applied to any of the synthetic ropes to improve snag resistance, sunlight resistance or for color coding. Cortland can provide ropes with a variety of finishes to meet your needs.

Commercial and Military Specifications Certificates of compliance are supplied at no charge if requested when placing the order. Certified test reports can be provided at an additional charge when requested at the time of the order.