

TUFFLEX®

Tufflex® Rope reflects our commitment to bringing innovation to commercial marine and fishing markets. Its unique blend of polyester and polypropylene in each strand creates highly efficient construction. Tufflex is torque balanced, has excellent wear resistance, and is one of the quickest ropes to splice.

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

Features & Benefits

- PP/Polyester 8/12 Strands mixed rope with high tensile strength
- High resistance to UV degradation, increases the total service life of the rope
- Floatable in nature
- Easily spliceable
- Reduced snap back risk due to low elongation
- High rope flexibility
- Excellent tension fatigue resistance
- All ropes are tested in accordance with IS7071 part I, II, III, IV and ISO 2307-2019 Annex C

Applications

- Mooring lines
- Tie-up and pendant lines
- Tug assist lines
- General purpose commercial marine uses

Size Dia.		Line Linear Density (LLD)	Coil Weight	Minimum Break Force		Line Design Break Force (LDBF)	
inch	mm			Unspliced		Spliced	
		kg/m	kg/220m	Ton	kN	Ton	kN
4	32	0.56	124	20.5	201	18.5	181
4-1/2	36	0.71	157	25.5	250	23.0	225
5	40	0.89	195	30.7	301	27.6	271
5-1/2	44	1.08	238	36.5	358	32.9	322
6	48	1.28	282	47.2	463	42.5	417
6-1/2	52	1.50	330	55.4	543	49.9	489
7	56	1.72	378	64.1	629	57.7	566
7-1/2	60	1.99	438	73.5	721	66.2	649
8	64	2.25	495	84.1	825	75.7	743
8-1/2	68	2.54	559	93.7	919	84.3	827
9	72	2.85	627	103.8	1018	93.4	916
10	80	3.52	775	127.7	1253	114.9	1127
11	88	4.55	1000	158.3	1553	142.5	1398
12	96	5.98	1315	187.8	1842	169.0	1658
13	104	7.00	1540	219.2	2150	197.3	1935
14	112	8.14	1790	253.1	2483	227.8	2235
15	120	9.32	2050	289.6	2841	260.6	2557

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%.

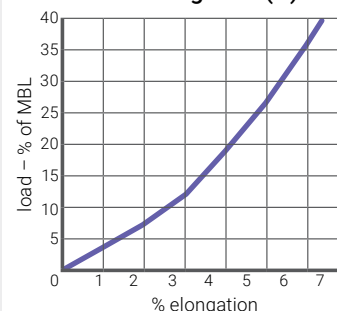
Additional sizes available upon request. Please visit cortlandinternational.com or contact your sales representative for full product data sheets.

Technical Information

Specific gravity	0.96*
Melting point	265°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® 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 vinyl esters 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.

