

Reduced Recoil Spectra®

The Cortland Reduced Recoil Spectra® Mooring Line is tested in accordance with the requirements of the latest version of Cordage Institute CI 1502, Test Methods for Reduced Recoil Risk Rope. In addition, it meets or exceeds the requirements of the latest draft of CGSB 40.20, Standard for Reduced Recoil Rope. The rope is manufactured utilizing a combination of Spectra® HMPE and Polyester fiber in either a conventional 12 Strand or 12x12 Strand construction.

Features

- Lightweight
- Very low stretch
- Very high strength
- Soft on hands
- Torque free
- Easy to splice
- Easy to inspect
- Repairable (12x12)

Nominal Diameter		Size (circ in.)	Approximate Weight		Minimum Tensile Strength Spliced Rope	
Inch	mm		Lbs/100'	Kg/100m	Lbs	kN
12 Strand						
5/8	16	2	12.0	18.0	24,500	109
3/4	18	2-1/4	15.1	22.5	28,900	129
13/16	20	2-1/2	18.1	26.9	34,000	151
7/8	22	2-3/4	22.3	33.2	40,700	181
1	24	3	26.6	39.5	48,200	214
1-1/8	28	3-1/2	36.2	54.0	61,500	274
1-1/4	30	3-3/4	41.1	61.2	68,700	306
1-5/16	32	4	47.4	70.6	76,600	341
1-1/2	36	4-1/2	58.7	87.4	94,700	421
1-5/8	40	5	74.6	111.1	112,100	499
1-3/4	44	5-1/2	89.1	132.6	132,700	590
12x12 Strand						
2	48	6	103.8	154.5	150,800	671
2-1/8	52	6-1/2	123.8	184.3	180,900	805
2-1/4	56	7	138.6	206.3	212,600	947
2-1/2	60	7-1/2	168.1	250.2	241,200	1,073
2-5/8	64	8	189.7	282.3	248,400	1,105
2-3/4	68	8-1/2	212.4	316.2	271,400	1,207
3	72	9	243.1	361.8	340,700	1,515

Tensile strengths are determined in accordance with Cordage Institute 1502, Test Methods for Reduced Recoil Risk Rope. Weights are calculated at linear density under standard preload (200D2) plus 4%.

Technical Information

Specific gravity	1.11*
Melting point	284°F (140°C)
Critical temp.	150°F (65°C)
Coefficient of friction	0.09–0.015*
Elongation at break	6%–8%
Fiber water absorption	<1%
UV resistance	very good
Wet abrasion	excellent
Dry abrasion	excellent

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

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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 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 fax your requirements 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.

Terms & Shipping Information

Payment Terms Net 30 days from the invoice date with approved credit.

Minimum Billing \$100 based on net prices.

Prices and Specifications Subject to change without notice.

Freight All prices are FOB factory – Anacortes, WA USA. Full freight allowance will be given on all surface shipments meeting minimum requirements based on delivery location, provided the invoice is paid within the 30 day terms.

Returned Goods Subject to a minimum 20% restocking charge upon inspection. No returns will be accepted without prior authorization.