



Lighter. Stronger. Safer.

Synthetic Fiber Stringing Lines & Winch Lines

Stronger and lighter are the two key elements of Synthetic Rope that make it the choice for pulling overhead power lines and setting poles and transformers. Synthetic rope does not store energy like steel cables, and in the event of a failure it is much less likely to result in severe injuries caused by the recoil of broken wire cables.

Plasma[®] 12 Strand – a patented product only manufactured by Cortland – is the highest strength synthetic rope available. Manufactured from high performance Honeywell Spectra 900[®] Fiber, this unique product has been enhanced by Cortland's patented recrystallization process. Plasma[®] 12 Strand can be braided into Cortland's patented 12x12 construction, creating a torque-free rope at unparalleled strength for its weight. High strength synthetic fiber stringing lines and winch lines can also be constructed from Spectra[®] 12 Strand, Vectran[®] 12 Strand, polyester and composite options.

Whether your solution requires high strength, low stretch, heat or abrasion resistance, Cortland manufactures the best utility rope solutions for winch, transmission, distribution and stringing lines. Email: cortland@cortlandcompany.com or call 360 293 8488.

Major Advantages of Synthetic Fiber Lines

- Equally strong to steel
- Significantly lighter
- Easier handling
- Safer
- Reduced cost
- Improved performance

PUGET SOUND ROPE

A Trusted Cortland Brand



cortlandcompany.com

CT_FL_003_0911

utility / industrial rope constructions

Dia.	Circ.	Plasma® 12 Strand		Spectra® 12 Strand		Vectran® 12 Strand		D/S Composite		D/T Composite		Polyester Double Braid		Polyester 12 Strand	
		Minimum Strength Lbs.	Weight Lbs. per 100-ft.	Minimum Strength Lbs.	Weight Lbs. per 100-ft.	Minimum Strength Lbs.	Weight Lbs. per 100-ft.	Minimum Strength Lbs.	Weight Lbs. per 100-ft.	Minimum Strength Lbs.	Weight Lbs. per 100-ft.	Minimum Strength Lbs.	Weight Lbs. per 100-ft.	Minimum Strength Lbs.	Weight Lbs. per 100-ft.
3/8"	1-1/8"	17,500	3.7	13,900	3.7	17,500	5.3	8,300	4.1	12,450	4.6	4,800	4.8	6,100	4.2
7/16"	1-1/4"	21,000	4.2	14,800	4.2	21,000	6.1	9,900	6.1	14,850	6.8	6,300	6.3	9,000	6.3
1/2"	1-1/2"	31,300	6.4	22,500	6.4	31,300	9.2	13,950	8.3	20,925	9.3	8,400	8.6	10,900	8.5
9/16"	1-3/4"	37,900	7.9	27,700	7.9	37,900	11.4	18,800	10.1	28,200	11.3	10,750	11.1	13,600	10.1
5/8"	2"	51,400	10.6	36,600	10.6	51,400	15.3	24,600	12.5	36,900	14.0	12,300	13.1	17,500	13.1
3/4"	2-1/4"	68,500	13.3	43,200	13.3	68,500	19.2	31,500	15.9	47,250	17.8	17,400	18.8	21,900	17.2
7/8"	2-3/4"	92,600	19.6	61,000	19.6	92,600	28.3	44,800	24.9	67,200	27.9	24,000	25.6	28,500	25.8
1"	3"	110,000	23.4	72,000	23.4	110,000	33.8	51,600	30.8	77,400	34.5	31,200	33.5	41,000	34.5
1-1/8"	3-1/2"	147,000	31.9	91,800	31.9	147,000	46.0	65,500	36.8	98,250	41.2	39,500	42.4	47,500	40.0
1-1/4"	3-3/4"	165,000	36.2	102,600	36.2	165,000	52.2	72,700	42.6	109,050	47.7	48,100	52.3	56,700	44.5
1-5/16"	4"	196,000	41.7	114,300	41.7	196,000	60.2	79,500	49.7	119,250	55.7	53,100	57.8	59,800	53.1
1-1/2"	4-1/2"	221,000	51.7	141,300	51.7	221,000	74.6	100,000	64.0	150,000	71.7	64,300	75.4	69,800	69.0
1-5/8"	5"	291,000	65.7	167,400	65.7	291,000	94.8	120,000	76.0	180,000	85.1	77,800	88.2	83,000	82.5
1-3/4"	5-1/2"	314,000	78.4	198,000	78.4	314,000	113.2	139,000	89.8	208,500	100.6	89,200	103.0	98,000	96.1
2"	6"	355,000	91.4	225,000	91.4	355,000	132.0	165,000	107.0	247,500	119.8	110,000	134.0	120,000	117.0

NOTE: Tensile strengths are determined in accordance with Cordage Institute Standard 1500-Test Methods for Fiber Rope. All strengths are obtained by testing rope with standard eye splices. Certificates of Compliance are supplied at no charge if requested when placing an order.

Plasma® 12 Strand is the highest strength synthetic rope available. Plasma® 12 Strand is manufactured from Honeywell Spectra® fiber that has been enhanced by Puget Sound Rope's patented recrystallization process. This process is especially effective in medium to large diameter ropes where strengths are over 50% higher and creep is significantly less than that of standard Spectra® 12 Strand. Plasma® 12 Strand comes standard with a polyurethane finish and is easily spliced using a simple tuck splice procedure. Its soft torque-free braided construction provides easy handling.

Spectra® 12 Strand provides very high strength, low stretch and excellent abrasion resistance in a single braid construction. Spectra® 12 Strand is over 3 times as strong and less than 1/2 of the elongation of a polyester rope of the same weight. Spectra® 12 Strand comes standard with a polyurethane finish and is easily spliced using a simple tuck splice procedure. Its soft, torque-free braided construction provides easy handling.

Vectran® 12 Strand is a high strength, low elongating heat-resistant single braided rope construction. It comes standard with either a wax marine finish or a polyurethane coating. Vectran® 12 Strand has excellent bend and flex fatigue resistance and has virtually no creep under sustained loads. It is easily spliced using a tuck splice procedure. Its soft, torque-free braided construction provides easy handling.

D/S Composite is a double braided rope with the inner core made of Spectra® and the outer sleeve of polyester. D/S Composite has very low elongation, high strength and the feel and handling of polyester and double braid. D/S Composite comes standard with an overlay finish and is available on special order with a spliceable polyurethane finish in clear or any of six colors.

D/T Composite is a double braided rope with the inner core made of Plasma® and Vectran® and the outer sleeve of polyester. D/T Composite is the highest strength double braid construction available and is intended for use in applications requiring high strength, low stretch and superior external abrasion protection. D/T Composite comes standard with an overlay finish and is available on special order with a spliceable polyurethane finish in clear or any of six colors.

Polyester Double Braid provides an excellent combination of high strength, low stretch, excellent weathering and easy handling. Of all the popular fibers polyester has the best weathering characteristics and the best wet abrasion resistance. Polyester Double Braid comes standard with an overlay marine finish and is available on special order with a spliceable polyurethane finish in clear or any of six colors.

Polyester 12 Strand has the lowest stretch and highest strength of all polyester constructions. Its torque-free braided construction provides easy handling and prevents kinks and hockles. Polyester 12 Strand comes standard with a clear polyurethane finish and is easily spliced using a simple lockstitch type splice.