BOB® 12x12 Strand

BOB® 12x12 Strand is a high strength, low elongating single braided patented rope construction with excellent long term creep resistance and superior cyclic fatigue performance, especially in bend-over-sheave applications. In the 12x12 strand construction, each strand consists of a smaller 12 strand rope produced using a proprietary blend of fibers. This design maximizes the strength of the fiber while allowing damaged rope strands to be removed and replaced if necessary. BOB® 12x12 Strand comes standard with a specially formulated coating that is designed to maximize the rope's durability in bending situations.

BOB 12x12 Strand is easily spliced using a lockstitch type splice, Brummel splice, 4-3-2 or 5-4-3 Tuck splice. The soft, torque free braided construction provides easy handling.

Features & Benefits

- High strength
- Low stretch
- Ultra low creep
- Soft hand
- Torque free
- Easy splicing

Applications

- Replacement for wire rope deep water lifting
- Use on drum and traction winches
- Active heave compensation systems
- Heavy lift slings
- High fatigue applications
- Seismic tow cables
- Tether applications

Nominal Diameter		Size (circ in.)	Approximate Weight		Minimum Tensile Strength Spliced Rope		Minimum Tensile Strength ISO Unspliced Rope	
inch	mm		lbs/ 100ft	kg/ 100m	lbs	MT (tonnes)	lbs	MT (tonnes)
1-1/4	30	3-3/4	43.4	64.6	165,000	75	183,300	83
1-5/16	32	4	53.2	79.2	196,000	89	217,800	99
1-1/2	36	4-1/2	66.6	99.1	221,000	100	245,600	111
1-5/8	40	5	81.8	121.8	291,000	132	323,300	147
1-3/4	44	5-1/2	95.9	142.7	314,000	142	348,900	158
2	48	6	120.6	179.4	355,000	161	394,400	179
2-1/8	52	6-1/2	141.6	210.8	428,000	194	475,600	216
2-1/4	56	7	158.2	235.4	481,000	218	534,400	242
2-1/2	60	7-1/2	191.3	284.7	530,000	240	588,900	267
2-5/8	64	8	210.9	313.8	596,000	270	662,200	300
2-3/4	68	8-1/2	227.9	339.3	660,000	299	733,300	333
3	72	9	269.9	401.7	780,000	354	866,700	393
3-1/4	80	10	314.5	468.0	940,000	426	1,044,000	474
3-1/2	84	10-1/2	375	588.06	1,108,000	503	1,231,000	559
3-5/8	88	11	403.3	600.2	1,250,000	567	1,389,000	630
4	96	12	531.9	791.6	1,520,000	690	1,689,000	766
4-1/8	100	12-1/2	620	923	1,622,000	736	1,802,000	818
4-1/4	104	13	697	1037	1,697,000	770	1,886,000	856
4-1/2	108	13-1/2	719	1070	1,827,000	829	2,030,000	921
4-5/8	112	14	740	1101	1,880,000	853	2,089,000	948
4-3/4	116	14-1/2	796	1185	1,927,000	874	2,141,000	971
5	120	15	822	1223	2,069,500	939	2,299,000	1043
5-1/8	124	15-1/2	891	1326	2,212,000	1004	2,458,000	1115
5-1/4	128	16	953	1418	2,355,000	1069	2,617,000	1187
5-1/2	132	16-1/2	1015	1511	2,497,500	1133	2,775,000	1259
5-5/8	136	17	1102	1640	2,640,000	1198	2,933,000	1331
5-3/4	140	17-1/2	1181	1758	2,782,500	1262	3,092,000	1403
6	144	18	1264	1881	2,925,000	1327	3,250,000	1475
6-1/8	148	18-1/2	1335	1987	3,068,000	1392	3,409,000	1547
6-1/4	152	19	1407	2094	3,210,500	1457	3,567,000	1618
6-1/2	156	19-1/2	1495	2225	3,353,000	1521	3,726,000	1691
6-5/8	160	20	1571	2338	3,496,000	1586	3,884,000	1762
6-3/4	164	20-1/2	1663	2475	3,638,500	1651	4,043,000	1834
7	168	21	1741	2591	3,781,000	1716	4,201,000	1906
7-1/8	172	21-1/2	1809	2692	3,963,500	1798	4,404,000	1998
7-1/4	176	22	1887	2808	4,066,000	1845	4,518,000	2050
7-1/2	180	22-1/2	1969	2930	4,209,000	1910	4,677,000	2122
7-5/8	184	23	2070	3081	4,351,500	1974	4,835,000	2194
7-3/4	188	23-1/2	2154	3206	4,494,000	2039	4,993,000	2265
8	192	24	2241	3335	4,637,000	2104	5,152,000	2338
8-1/8	196	24-1/2	2348	3494	4,779,000	2168	5,310,000	2409
8-1/4	200	25	2438	3628	4,922,000	2233	5,469,000	2481

Size: Diameter and circumference are nominal. A new unused rope in relaxed state will measure larger; loading and use compacts ropes, sets splices and lessens rope size. This is especially prevalent in sizes above 4" diameter. Published nominal sizes from 4-1/8" and larger represent stabilized or preloaded size. **Weights:** Published weights of sizes 1-5/8"–4" diameter are calculated at linear density under stated preload (200d²) plus 4%. For this chart, sizes 4-1/8"– 8-1/4" diameter represent un-cycled, (non-stabilized) weights.
Tensile Strengths: Tensile Strength determined in accordance with Cordage Institute 1500 Test Methods for Fiber Ropes and ISO 2307.

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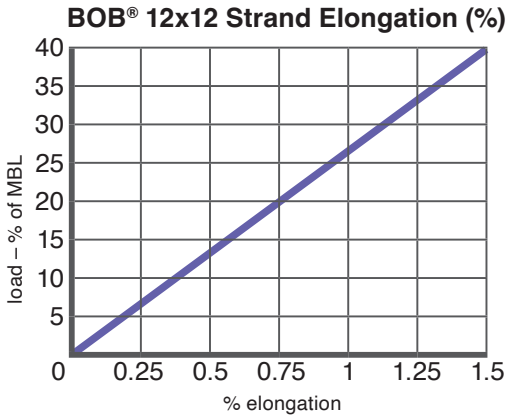
Technical Information

Specific gravity	**1.18***
Melting point	**284°F (140°C)**
Critical temp.	**150°F (65°C)**
Coefficient of friction	**0.12–0.15***
Elongation at break	**3%–4%**
Fiber water absorption	**<0.1%**
UV resistance	**good**
Wet abrasion	**superior**
Dry abrasion	**superior**

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



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 email your requirements to cortland@cortlandcompany.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.

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