

FEATURES AND BENEFITS

- > Wire replacement
- > Abrasion resistant
- > Flexible
- > Excellent grip
- > Lightweight
- > Floats
- > Easy to handle
- > Easy to inspect
- > Easy to splice

Quantum-12 is a lightweight, high-strength, floating rope that grips hardware. The patented DPX™ fiber technology provides superior abrasion and cut resistance, but with a higher coefficient of friction than other high modulus polyethylene ropes. The 12-strand construction provides added flexibility, improved handling, and easy splicing. The vivid green Samthane coating provides excellent visibility and additional abrasion resistance.

APPLICATIONS

VESSEL MOORING

- > General working line
- > Primary mooring line
- > Secondary mooring line

TUG

- > Barge tie-up line
- > H-bitt working line
- > Mainline
- > Pendant
- > Winch line

OFFSHORE

- > Lifting sling
- > Winch line
- > Working line

COMMERCIAL FISHING

- > Other fishing lines

SIZE DIAMETER INCHES	SIZE CIRC. INCHES	WEIGHT PER 100 FT. POUNDS	SAMSON MBS* POUNDS	SIZE DIAMETER MILLIMETERS	WEIGHT PER 100 m KILOGRAMS	SAMSON MBS* METRIC TONS	ISO 2307 STRENGTH** METRIC TONS
3/4"	2-1/4"	11.8 lb	40,800 lb	18 mm	17.6 kg	18.5 t	20.5 t
7/8"	2-3/4"	15.2 lb	56,300 lb	22 mm	22.6 kg	25.5 t	28.4 t
1"	3"	21.0 lb	74,300 lb	24 mm	31.2 kg	33.7 t	37.4 t
1-1/8"	3-1/2"	25.5 lb	94,500 lb	28 mm	37.9 kg	42.9 t	47.6 t
1-1/4"	3-3/4"	31.0 lb	118,000 lb	30 mm	46.1 kg	53.5 t	59.4 t
1-5/16"	4"	33.0 lb	131,000 lb	32 mm	49.1 kg	59.6 t	66.2 t
1-3/8"	4-1/8"	37.5 lb	146,000 lb	34 mm	55.8 kg	66.1 t	73.5 t
1-1/2"	4-1/2"	44.7 lb	172,000 lb	36 mm	66.5 kg	78.0 t	86.6 t
1-5/8"	5"	50.0 lb	203,000 lb	40 mm	74.4 kg	92.3 t	103 t
1-3/4"	5-1/2"	60.8 lb	239,000 lb	44 mm	90.5 kg	108 t	120 t
2"	6"	79.4 lb	314,000 lb	48 mm	118 kg	142 t	158 t
2-1/8"	6-1/2"	89.6 lb	357,000 lb	52 mm	133 kg	162 t	180 t
2-1/4"	7"	100 lb	403,000 lb	56 mm	149 kg	183 t	203 t
2-3/8"	7-1/8"	112 lb	453,000 lb	57 mm	167 kg	205 t	228 t
2-1/2"	7-1/2"	125 lb	506,000 lb	60 mm	186 kg	229 t	255 t
2-5/8"	8"	138 lb	563,000 lb	64 mm	205 kg	255 t	284 t
2-3/4"	8-1/2"	155 lb	614,000 lb	68 mm	231 kg	278 t	309 t
3"	9"	179 lb	726,000 lb	72 mm	266 kg	329 t	366 t
3-1/4"	10"	213 lb	849,000 lb	80 mm	317 kg	385 t	428 t
3-5/8"	11"	266 lb	1,050,000 lb	88 mm	396 kg	476 t	529 t
4"	12"	324 lb	1,272,000 lb	96 mm	482 kg	577 t	641 t
4-1/4"	13"	366 lb	1,428,000 lb	104 mm	545 kg	648 t	720 t
4-5/8"	14"	447 lb	1,682,000 lb	112 mm	665 kg	763 t	848 t
5"	15"	523 lb	1,956,000 lb	120 mm	778 kg	887 t	986 t
5-1/4"	16"	577 lb	2,138,000 lb	128 mm	859 kg	970 t	1,078 t
5-1/2"	16-1/2"	634 lb	2,316,000 lb	134 mm	943 kg	1,050 t	1,167 t
5-5/8"	17"	737 lb	2,422,000 lb	142 mm	1,097 kg	1,099 t	1,221 t
6"	18"	755 lb	2,703,000 lb	152 mm	1,123 kg	1,226 t	1,362 t
6-1/4"	19"	820 lb	2,884,000 lb	158 mm	1,220 kg	1,308 t	1,453 t
6-5/8"	20"	922 lb	3,221,000 lb	168 mm	1,372 kg	1,461 t	1,623 t
7"	21"	1,030 lb	3,576,000 lb	178 mm	1,533 kg	1,622 t	1,802 t
7-1/4"	22"	1,105 lb	3,813,000 lb	184 mm	1,644 kg	1,730 t	1,922 t
7-5/8"	23"	1,188 lb	4,170,000 lb	194 mm	1,768 kg	1,891 t	2,102 t
8"	24"	1,308 lb	4,563,000 lb	204 mm	1,946 kg	2,070 t	2,300 t

*Spliced strength ** This standard replaces BS EN 919 and ISO 2307:1995 and is for unspliced strengths.

SPECIFICATIONS¹

FIBER: DPX™ fiber technology: a Dyneema®polyester blend

SPECIFIC GRAVITY: 0.99 (floats)

STANDARD COLOR: Vivid Green

ELASTIC ELONGATION PERCENTAGE

At % of break strength

10% 0.65%

20% 0.75%

30% 0.90%

SPLICE: 12-strand Class II

¹Due to our continued research and development of product performance, the specifications listed herein are subject to change. For the most current sizes, weights, and strengths, go to SamsonRope.com.



CONSIDERATIONS FOR LARGE DIAMETER ROPE

Sizes 3-5/8" (88-mm) diameter and above

CONSIDERATIONS IMPACTING STRENGTH

Connecting hardware:

- > The size of connecting hardware (i.e., thimbles, shackles, links, etc.) relative to the rope can impact rope strength.
- > For grommet and endless loop configurations Samson recommends a 1.6x multiplier for determining grommet strength. However, this can be greatly impacted by hardware size, and attention should be given when calculating theoretical strength values.

For grommets used in static applications Samson recommends a MINIMUM diameter for connecting hardware of 3x the rope's diameter:

- > This D/d ratio impacts the grommet and rope strength, and care should be taken in the design and selection of rigging hardware.

CONSIDERATIONS IMPACTING ELONGATION

Elongation characteristics vary for new and broken-in ropes:

- > For details on elongation characteristics, please contact customer service or engineering.

CONSIDERATIONS FOR ORDER PLACEMENT

- > The minimum order length requirement is 100 ft. Orders between 100 and 300 ft will be accepted with an additional set-up charge.
- > If the required strength is not listed in the charts, please contact customer service for assistance.

CONSIDERATIONS FOR SPLICING & RIGGING



Samson recommends a minimum distance of 5 ft between the ends of each splice:

- > Some applications may require shorter lengths. Careful consideration should be given to ensure that splices do not come into contact with any bearing points under tension.
- > The distance required between splices (clear rope) will impact the minimum sling fabrication length. All hardware and connections should be figured into the overall length of the rope prior to designing the final sling configuration.
- > Rope will increase in diameter in the splice area. This change is on average 1.75x the ropes diameter.

