

QUANTUM™ X Product Code: 847



TECHNICAL SPECIFICATIONS†

FIBER: Dyneema®Polyester Blend

SPECIFIC GRAVITY: 0.99 (floats)

COLOR: Orange with a black longitudinal line

ELASTIC ELONGATION PERCENTAGE

At % of break strength

10% 0.65%

20% 0.75%

30% 0.90%

SPLICE/CLASS: 12-strand Class II

FEATURES & BENEFITS

- > Reduced creep in applications with static load
- > Enhanced abrasion resistance
- > Enhanced grip from patented DPX™ fiber technology
- > High coefficient of friction
- > Snag resistant
- > Easy to handle
- > Easy to inspect
- > Easy to splice
- > Flexible
- > Floats
- > High strength
- > Lightweight
- > Samthane coated

APPLICATIONS

- > Barge Tie-Up Line
- > H-Bitt Working Line
- > Mainline
- > Pendant
- > Winch Line
- > Primary Mooring Line
- > Secondary Mooring Line
- > Lifting Sling
- > General Working Line

QUANTUM™ X—BUILDING ON SUCCESS

Samson engineers have taken one of our most popular and dependable working lines, QUANTUM™12, and added the latest high-performance fiber technology and construction enhancements. The result is the newest addition to our line of high-performance ropes, QUANTUM-X. This 12-strand rope has been engineered for X™tra performance: better snag resistance, higher coefficient of friction, enhanced cyclical bend over sheave (CBOS), and creep performance. It is lightweight, high-strength, floats, is flexible, and easy to handle and splice.

QUANTUM-X utilizes Dyneema® SK78 fiber, a new fiber based on the same technology that has made Dyneema® high modulus polyethylene (HMPE) fiber the best performing, most consistent fiber for use in rope and cordage products. It also utilizes Samson's patented DPX™ fiber technology. This unique process incorporates a textured fiber on the surface of the high modulus Dyneema® fiber yarns. The result is a rope that maintains the advantages of Dyneema®; extreme strength and light weight, cut and abrasion resistance, and adds a higher coefficient of friction for use where enhanced grip is critical.

A high-visibility orange Samthane coating provides additional abrasion resistance while a black longitudinal line aids in identifying twist to help mitigate the damage it can cause.

SK78: The Next Generation in Fiber Technology

Dyneema® SK78 is the next generation of HMPE fiber resulting from the constant refinement and development efforts at Dyneema®. Their objective is to produce a range of fibers that bring new levels of performance to products created from them.

Samson's testing confirms that, compared to Dyneema® SK75, SK78 brings improved service life in applications where creep results from long-term static loads; roughly 2X that of SK75. In addition, SK78 has better fatigue performance in cyclic bending applications.

SIZE DIAMETER INCHES	SIZE CIRCUMFERENCE INCHES	WEIGHT PER 100 FT. POUNDS	MINIMUM BREAKING STRENGTH* POUNDS	SIZE DIAMETER MILLIMETERS	SIZE CIRCUMFERENCE MILLIMETERS	WEIGHT PER 100 m KILOGRAMS	MINIMUM BREAKING STRENGTH* METRIC TONS	BS EN ISO 2307:2010 STRENGTH** METRIC TONS
3/4"	2-1/4"	12.6 lb	43,700 lb	18 mm	54 mm	18.7 kg	19.8 t	22.0 t
7/8"	2-3/4"	16.8 lb	58,200 lb	22 mm	66 mm	25.0 kg	26.4 t	29.3 t
1"	3"	21.6 lb	76,100 lb	24 mm	72 mm	32.1 kg	34.5 t	38.4 t
1-1/8"	3-1/2"	26.4 lb	93,600 lb	28 mm	84 mm	39.3 kg	42.5 t	47.2 t
1-1/4"	3-3/4"	32.7 lb	119,000 lb	30 mm	90 mm	48.7 kg	53.9 t	59.9 t
1-5/16"	4"	34.2 lb	127,000 lb	32 mm	96 mm	50.9 kg	57.6 t	64.0 t
1-3/8"	4-1/8"	38.9 lb	144,000 lb	34 mm	100 mm	57.9 kg	65.3 t	72.6 t
1-1/2"	4-1/2"	45.5 lb	168,000 lb	36 mm	108 mm	67.7 kg	76.3 t	84.8 t
1-5/8"	5"	52.7 lb	196,000 lb	40 mm	120 mm	78.4 kg	89.0 t	98.9 t
1-3/4"	5-1/2"	61.6 lb	232,000 lb	44 mm	132 mm	91.7 kg	105 t	117 t
2"	6"	78.2 lb	301,000 lb	48 mm	144 mm	116 kg	136 t	152 t
2-1/8"	6-1/2"	89.4 lb	344,000 lb	52 mm	156 mm	133 kg	156 t	173 t
2-1/4"	7"	97.8 lb	374,000 lb	56 mm	168 mm	146 kg	170 t	189 t
2-1/2"	7-1/2"	123 lb	488,000 lb	60 mm	180 mm	183 kg	221 t	246 t
2-5/8"	8"	134 lb	532,000 lb	64 mm	192 mm	199 kg	241 t	268 t
2-3/4"	8-1/2"	146 lb	586,000 lb	68 mm	204 mm	217 kg	266 t	295 t
3"	9"	174 lb	701,000 lb	72 mm	216 mm	259 kg	318 t	353 t
3-1/4"	10"	205 lb	833,000 lb	80 mm	240 mm	305 kg	378 t	420 t

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

†Due 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.

DPX™ and QUANTUM™ are trademarks of Samson Rope Technologies, Inc.

Dyneema® is a registered trademark of Royal DSM N.V. Dyneema is DSM's high-performance polyethylene product.

© 2015 Samson Rope Technologies, Inc. All rights reserved. S/W/D #109004 7/2015

2090 Thornton Street, Ferndale, WA 98248 USA

Tel 01.360.384.4669 | Fax 01.360.384.0572

www.SamsonRope.com



samson
THE STRONGEST NAME IN ROPE