

### Class II

Samson's patented DPX™ technology provides this high-performance, lightweight single braid with better grip.

#### FEATURES:

- > Good grip on capstans and H-bitts
- > Excellent abrasion resistance
- > Floats
- > Easily spliced

#### APPLICATIONS:

- > Heavy lift slings and grommets
- > Winch lines — standard and tapered
- > Primary and temporary vessel and barge mooring lines

#### SPECIFICATIONS:

**Specific Gravity:**  
0.99

**Elastic Elongation Percentage:**  
At % of break strength  
10%.....0.65%  
20%.....0.75%  
30%.....0.90%

**Splicing Procedures Required:**

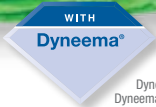
- > **EYE SPLICE**  
12-Strand/Class II Rope  
12-Strand Tuck-Bury Splice
- > **END-FOR-END SPLICE**  
12-Strand/Class II Rope

Quantum-12 combines the best qualities of Dyneema® SK-75 HMPE fiber with Samson's exclusive DPX™ fiber technology into a patented construction with enhanced grip. The DPX™ surface yarns provide the extra coefficient of friction needed in some rope applications. Quantum-12, like AmSteel®Blue, is a torque-free, buoyant, lightweight single braid that provides similar performance features with only a slight sacrifice in tensile strength.



Size Diameter* INCHES	Weight Per 100 feet POUNDS	SRT MBS** POUNDS	Size Diameter* MILLIMETERS	Weight Per 100 meters KILOGRAMS	SRT MBS** METRIC TONS	ISO/BS EN919 MBS METRIC TONS
2 in.	93.2 lb	314,000 lb	48 mm	139 kg	142 t	158 t
2-1/8 in.	105 lb	357,000 lb	52 mm	156 kg	162 t	180 t
2-1/4 in.	118 lb	403,000 lb	56 mm	176 kg	183 t	203 t
2-3/8 in.	131 lb	453,000 lb	57 mm	195 kg	205 t	228 t
2-1/2 in.	146 lb	506,000 lb	60 mm	217 kg	229 t	255 t
2-5/8 in.	161 lb	563,000 lb	64 mm	240 kg	255 t	284 t
2-3/4 in.	176 lb	614,000 lb	68 mm	262 kg	278 t	309 t
3 in.	210 lb	726,000 lb	72 mm	312 kg	329 t	366 t
3-1/4 in.	246 lb	849,000 lb	80 mm	366 kg	385 t	428 t
3-5/8 in.	306 lb	1,050,000 lb	88 mm	455 kg	476 t	529 t
4 in.	373 lb	1,272,000 lb	96 mm	555 kg	577 t	641 t
4-1/4 in.	421 lb	1,428,000 lb	104 mm	626 kg	648 t	720 t
4-5/8 in.	498 lb	1,682,000 lb	112 mm	742 kg	763 t	848 t
5 in.	583 lb	1,956,000 lb	120 mm	868 kg	887 t	986 t
5-1/4 in.	642 lb	2,138,000 lb	128 mm	955 kg	970 t	1,078 t
5-1/2 in.	705 lb	2,316,000 lb	136 mm	1,049 kg	1,050 t	1,167 t
6 in.	839 lb	2,703,000 lb	144 mm	1,248 kg	1,226 t	1,362 t
6-1/4 in.	910 lb	2,884,000 lb	158 mm	1,354 kg	1,308 t	1,453 t
6-5/8 in.	1,023 lb	3,221,000 lb	168 mm	1,522 kg	1,461 t	1,623 t
7 in.	1,142 lb	3,576,000 lb	178 mm	1,699 kg	1,622 t	1,802 t
7-1/4 in.	1,225 lb	3,813,000 lb	184 mm	1,823 kg	1,730 t	1,922 t
7-5/8 in.	1,355 lb	4,170,000 lb	194 mm	2,016 kg	1,891 t	2,102 t
8 in.	1,491 lb	4,563,000 lb	203 mm	2,219 kg	2,070 t	2,300 t

\*Diameter measured under load  
\*\*Spliced strength



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



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THE STRONGEST NAME IN ROPE

# Considerations for Large Diameter Rope

Information specific to selecting, ordering and using Samson large diameter ropes.



## 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.

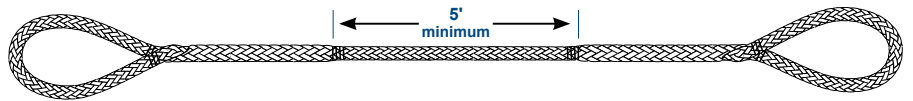
## CONSIDERATIONS IMPACTING ELONGATION

### Elongation characteristics vary for new and broken-in ropes:

- > Elastic elongation shown represents properties for broken-in rope.
- > For details on elongation characteristics, please contact customer service or engineering.

## CONSIDERATIONS FOR ORDER PLACEMENT

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



## CONSIDERATIONS FOR SPLICING & RIGGING

### Samson recommends a minimum distance of 5 feet 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.



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