SELDIS polysteen

PRODUCT INFORMATION

TEXTILE ROPE

Synthetic Ropes Physical

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Fact Sheet
Synthetic Ropes Physical

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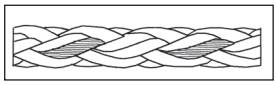
Since plaited synthetic ropes first had been supplied for use as mooring lines on seagoing ships, diversity of constructions grew considerably. This publication is supposed to reduce the existing range of names to its real essence, and to ensure clarity. It explicitly does not refer to material properties (chemical consistency, composition of multi- or monofilaments), which must be consulted to evaluate efficiency and performance of ropes as a whole.

The summary of distinctive features indicated against relevant rope constructions, is shown hereunder:

Twisted fibre rope of 3 or 4 strands

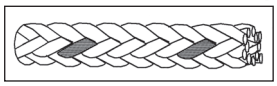
Common general purpose small size rope.
Sensitive to kinking.

Square plaited fibre rope of 8 (4x2) strands



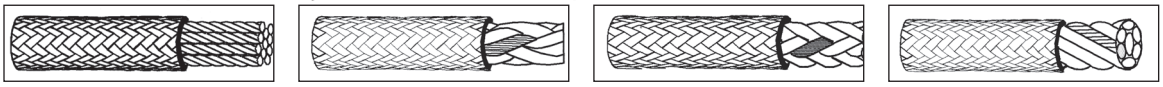
Most common plaited construction.
Oldest, most frequently used construction worldwide. Well established. Recommended, as long as no special requirements exist. Commonly used as auxiliary mooring lines, tails, and towing stretchers.

Circular braided fibre rope of 12 (12x1) or 24 (12x2) strands



Limited availability due to missing production facilities.
Braided rope with rounded cross section. Consequently better surface contact with winch drum or rollers. Very flexible. Important: 12-strand ropes have almost no disadvantages, but offer advantages compared with 24-strand ropes, namely higher resistance to inside wear (less strand-to-strand intersection points between strands), less strength reduction by abrasion owing to larger cross section of strands. Most recommended winchline next to synthetic wire rope (like Atlas).

Jacketed fibre rope, braided jacket(cover), with independent core



of circular braid, or of paralleled twisted strands. Less common. Indivdually designable for special applications, owing to variety of possible core designs. Cross section perfectly round-shaped. Higher purchase cost due to elaborate producion processes. Advantages: Good surface contact, jacket protecting core from mechanical impact. Disadvantages: Difficult splicing process, jacket not counted as load bearing element, inside of rope not available for visual inspection.

Cross lay synthetic wire rope of 6 (6x1) strands around a fibre core (twisted)
Common (successful for decades)

Solid wire rope construction. Higher purchase cost due to elaborate production process. Almost perfect on mooring winches. Combines design related advantages of wire rope construction (stability, resistance against lateral pressure) with material related advantages of synthetic wires, and yarns (low weight, no corrosion). No intersection of yarns, wires, or strands inside the rope, thus no cutting pressure under load. However, less flexible, than unjacketed plaited or braided ropes, therefore use on winches only, not loose around bollards. (Product names: Atlas, Dura Winchline)