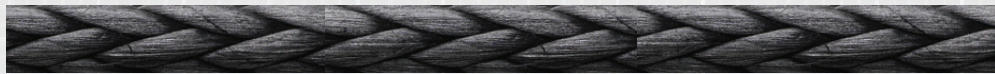


Marlow[®] DATASHEET

DYNALINE MAX 78 AND 99

Marlow's Dynaline Max takes the wire rope replacement concept of Dynaline a stage further by adding Marlow's "Max" super pre-stretching process. Dynaline Max offers much higher strength than a standard Marlow Winch Line rope. The higher break load for a given diameter offers a higher factor of safety or the possibility to down size the rope, thereby allowing a longer length to be fitted on the winch.



APPLICATIONS

Winching

MATERIAL

MANUFACTURED FROM DYNEEMA:

HMPE (High-Modulus Polyethylene)
Very light weight - 8x lighter than steel wire for a given strength
High strength - 70% stronger than steel wire for a given diameter
Low stretch - see graph below
Good resistance to chemicals and UV
Zero water shrinkage
Low creep HMPE fibre

CONSTRUCTION

TWISTED FIBRE CONSTRUCTION:

12 STRAND BRAIDED CONSTRUCTION:

Improved abrasion resistance
Optimised pitch to yarn twist - improves strength & longevity
Firmer rounder rope, aids handling
Easy to splice
Flexible product and easily handled
Torque balanced
Maximises strength/diameter ratio
Minimises elongation

HEAT SET AND PRE-STRETCHED:

COATING OPTIONS

MARLOW ARMOURCOAT:

Specially formulated polyurethane coating
Improves abrasion resistance and durability
Increases friction, aids handling & splicing
Provides colour coding (black as standard, other colour options available on request)

PROPERTIES

RELATIVE DENSITY:

0.97 (floats)

CHEMICAL RESISTANCE:

Excellent resistance to most chemicals (additional information available on request)

UV RESISTANCE:

Very good

MELTING POINT:

140°C

CRITICAL TEMPERATURE:

80°C (exposure to temperatures over this will result in permanent strength loss)

TERMINATIONS

SPLICED EYE

TERMINATION:

12 strand splice

An allowance of 60x rope diameter should be made for the overall length of the splice.

To optimise the efficiency of a soft eye splice (without a thimble), the angle formed at the neck of the splice should be 30° or less, meaning that when flat, the length of the eye must be 2.7x the diameter of the object over which the splice will be used.

In a sling configuration, attention must be paid to the distance between the two splices. For optimum strength realisation, Marlow recommend the minimum distance between splices of 35x rope diameter.

A splice will normally increase the diameter of the rope between 1.5x and 1.75x.

N.B. KNOTS WILL SIGNIFICANTLY REDUCE THE STRENGTH OF ANY ROPE. THIS PRODUCT WILL TYPICALLY RETAIN APPROXIMATELY 30% OF ITS STRENGTH IF TERMINATED WITH A KNOT. THE EXACT FIGURE WILL DEPEND ON THE TYPE OF KNOT USED AND OTHER FACTORS.

ELONGATION

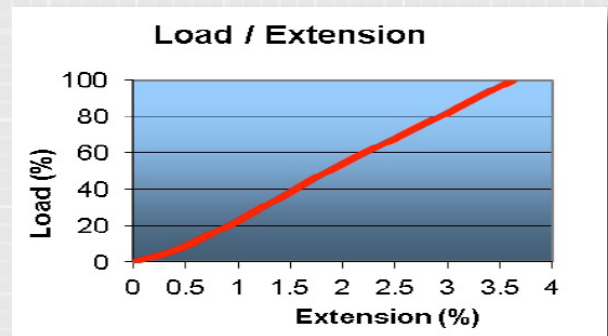
Permanent elongation on first loading: Up to 5%

Typical working elongation (for a bedded in rope):

@ 10% of break load: 0.51%

@ 20% of break load: 0.89%

To break: 3.60%



DYNALINE MAX SK78

| DIAMETER | | MASS | | AVERAGE SPLICED STRENGTH | | | MIN SPLICED STRENGTH | | |
|----------|-------|------|-----------|--------------------------|-------|------|----------------------|-------|------|
| mm | Inch | g/m | lb/100 ft | kg | lb | kN | kg | lb | kN |
| 5 | 3/16 | 15.6 | 1.05 | 3200 | 7050 | 31.4 | 2980 | 6560 | 29.2 |
| 6 | 7/32 | 22.3 | 1.50 | 4570 | 10100 | 44.8 | 4250 | 9380 | 41.7 |
| 7 | 1/4 | 35.6 | 2.39 | 7510 | 16600 | 73.7 | 6980 | 15400 | 68.5 |
| 8 | 5/16 | 44.5 | 2.98 | 9390 | 20700 | 92.1 | 8730 | 19200 | 85.6 |
| 9 | 3/8 | 54.0 | 3.62 | 10800 | 23800 | 106 | 10000 | 22100 | 98.1 |
| 10 | 13/32 | 63.0 | 4.22 | 12600 | 27800 | 124 | 11700 | 25800 | 115 |
| 11 | 7/16 | 75.5 | 5.06 | 15100 | 33300 | 148 | 14100 | 31000 | 138 |
| 12 | 15/32 | 90.0 | 6.04 | 18000 | 39700 | 177 | 16700 | 36900 | 164 |
| 13 | 1/2 | 107 | 7.18 | 21100 | 46600 | 207 | 19700 | 43400 | 193 |
| 15 | 9/16 | 134 | 8.99 | 26400 | 58300 | 259 | 24600 | 54200 | 241 |
| 17 | 11/16 | 184 | 12.3 | 32900 | 72400 | 323 | 30600 | 67400 | 300 |

DYNALINE MAX SK99

| DIAMETER | | MASS | | AVERAGE STRENGTH | | | MIN STRENGTH | | |
|----------|-------|------|-----------|------------------|-------|------|--------------|-------|------|
| mm | Inch | g/m | lb/100 ft | kg | lb | kN | kg | lb | kN |
| 5 | 3/16 | 15.6 | 1.05 | 3810 | 8380 | 37.4 | 3500 | 7710 | 34.4 |
| 6 | 7/32 | 22.3 | 1.50 | 5440 | 12000 | 53.4 | 5010 | 11000 | 49.1 |
| 7 | 1/4 | 35.6 | 2.39 | 8940 | 19700 | 87.7 | 8220 | 18100 | 80.7 |
| 8 | 5/16 | 44.5 | 2.98 | 11200 | 24600 | 110 | 10300 | 22600 | 101 |
| 9 | 3/8 | 54.0 | 3.62 | 12500 | 27500 | 123 | 11500 | 25300 | 113 |
| 10 | 13/32 | 63.0 | 4.22 | 14600 | 32100 | 143 | 13400 | 29600 | 132 |
| 11 | 7/16 | 75.5 | 5.06 | 17500 | 38600 | 172 | 16100 | 35500 | 158 |
| 12 | 15/32 | 90.0 | 6.04 | 20900 | 45900 | 205 | 19200 | 42200 | 188 |
| 13 | 1/2 | 107 | 7.18 | 24500 | 54000 | 241 | 22600 | 49600 | 221 |
| 15 | 9/16 | 134 | 8.99 | 30700 | 67500 | 301 | 28200 | 62100 | 277 |
| 17 | 11/16 | 184 | 12.34 | 38100 | 83800 | 374 | 35100 | 77100 | 344 |

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