Marlow®

DATASHEET

DYNALINE

Dynaline is made with high strength, light weight UHMPE (Dyneema®) fibre and is designed to replace steel wire winch ropes on 4x4's and recovery vehicles. Dynaline enables significantly quicker and safer deployment and recovery than traditional steel wire ropes, virtually eliminating dangerous recoil if fittings or attachments fail or in the unlikely event of rope failure.

APPLICATIONS:	Winching
MATERIAL:	UHMPE (High-Modulus Polyethylene) Dyneema®
BENEFITS:	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.
CONSTRUCTION	
TWISTED FIBRE CONSTRUCTION:	Improved abrasion resistance
12 STRAND BRAIDED CONSTRUCTION:	Optimised pitch to yarn twist - improves strength & longevity. Firmer round rope, aids handling. Easy to splice. Flexible product and easily handled. Torque balanced.
HEAT SET AND PRE-STRETCHED:	Maximises strength/diameter ratio. Minimises elongation.
COATING	
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).
PHYSICAL PROPERITIES	
RELATIVE DENSITY:	0.97 (floats).
CHEMICAL RESISTANCE:	Excellent resistance to most chemicals (additional information available).
UV RESISTANCE:	Very good.
MELTING POINT:	140°C.
CRITICAL TEMPERATURE:	80°C.

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

DIAMETER	CIRCUMFERENCE	MASS		AVERAGE STRENGTH			MIN STRENGTH		
mm	Inch	g/m	lb/100 ft	kg	lb	kN	kg	lb	kN
6	7/32	16.0	1.07	3130	6900	30.7	2880	6350	28.3
8	5/16	30.9	2.07	6340	14000	62.2	5830	12900	57.2
9	23/64	38.0	2.55	7640	16800	75.0	7030	15500	69.0
10	13/32	48.6	3.26	9530	21000	93.5	8770	19300	86.0
11	7/16	57.1	3.83	11700	25800	114.9	10800	23800	105.7
12	15/32	66.4	4.45	13400	29500	131.4	12300	27200	120.9

N.B. AVERAGE AND MINIMUM STRENGTH DETAILED BELOW IS FROM A SPLICED CONDITION AS TESTED AND AS TERMINATED IN USE.

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