

Marlow[®] DATASHEET

OCEANUS SK78 32 PLAIT

Marlow Oceanus is a high strength, low elongation "Jacketed" rope. Firm and round in profile, Oceanus has been specifically designed for use on captive or traction winches. The Dyneema / Technora cover significantly improves abrasion and cut resistance, whilst offering excellent grip and protection of the load bearing core. Oceanus has excellent drum spooling properties.



APPLICATIONS

Winch lines, Lifting lines, Seismic arrays, Escort and ocean towing lines

MATERIAL

CORE:

Manufactured from Dyneema SK75
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 weight
Low stretch - see table below
Good resistance to chemicals and UV
Zero water shrinkage

ADDITIONAL FEATURES OF DYNEEMA SK78:

Very low creep HMPE fibre
Exhibits approximately 20% of the creep experienced by SK75.
Further information available.

COVER:

Hyperblend: Dyneema / Technora blend, excellent abrasion and cut resistance, very good heat resistance, increased coefficient of friction over 100% Dyneema.

CONSTRUCTION

12 STRAND BRAIDED CORE CONSTRUCTION:

Optimised pitch to yarn twist - improves strength & longevity
Easy to splice
Flexible product and easily handled
Torque balanced
Marlow GripCoat supplied as standard for core / cover bonding and self healing properties
Core can be used without covered

32 PLAIT BRAIDED COVER CONSTRUCTION:

Protects load bearing core from dirt and abrasion
Round and firm construction

SPECIAL OPTIONS

FILTER FABRIC LAYER: DYNEEMA XBO:

Prevent ingress of marine particulates
Improves flex fatigue experienced in continuous cyclic bending
Reduces yarn on yarn abrasion and heat generation by a factor of 5
Applied at yarn manufacture stage - can be used in conjunction with any of the coatings

MACHINE FINISHED SPLICE: Improved finish and splice protection

PROPERTIES

RELATIVE DENSITY:

1 (Neutrally buoyant, exact figure will vary with rope size)

CHEMICAL RESISTANCE:

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

UV RESISTANCE:

Very good

MELTING POINT (CORE):

140°C

CRITICAL TEMPERATURE (CORE):

80°C

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

TERMINATIONS

SPliced EYE TERMINATION:

12 strand bury splice (core)

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.

ELONGATION

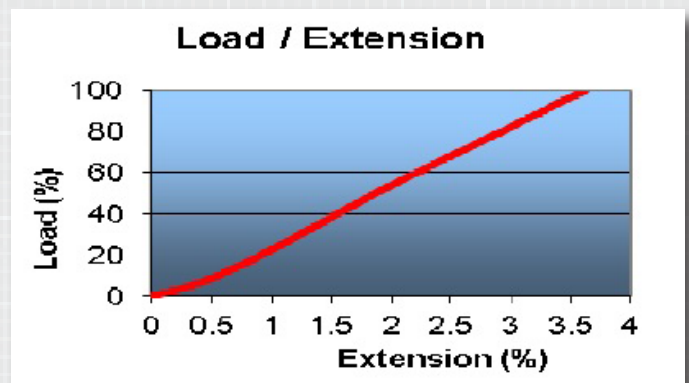
Permanent elongation on first loading: Up to 2%

Typical working elongation (for a bedded in rope):

@ 10% of break load: 0.51%

@ 20% of break load: 0.89%

To break: 3.60%



PERFORMANCE

DIAMETER	CIRCUMFERENCE	MASS		AVERAGE STRENGTH			MIN STRENGTH		
		mm	Inch	g/m	lb/100 ft	kg	lb	kN	kg
22	2 3/4	272	20.5	35,000	77,200	343	31,500	69,500	309
24	3	332	23.4	40,200	88,700	395	36,200	79,800	355
26	3 1/4	419	32.5	50,000	110,000	491	45,000	99,200	442
28	3 1/2	490	38.4	59,700	132,000	586	53,700	118,000	527
30	3 3/4	530	41.1	66,800	147,000	655	60,100	133,000	590
32	4	587	46.0	73,800	163,000	724	66,400	146,000	652
34	4 1/4	644	48.8	80,700	178,000	792	72,200	160,000	713
36	4 1/2	742	57.5	94,900	209,000	931	85,200	188,000	838
38	4 3/4	816	63.6	102,000	224,000	997	91,500	202,000	897
40	5	889	69.6	108,000	239,000	1060	97,400	215,000	956
42	5 1/4	963	74.6	115,000	253,000	1130	103,000	228,000	1,010
44	5 1/2	1061	82.2	128,000	283,000	1260	116,000	255,000	1,130
46	5 3/4	1175	91.0	142,000	314,000	1400	128,000	282,000	1,260
48	6	1289	99.7	156,000	344,000	1530	141,000	310,000	1,380
50	6 1/4	1420	109.6	169,000	373,000	1660	152,000	336,000	1,500

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