DATASHEET

Marlow®

EXCEL MATRIX

Excel Matrix is a high performance dinghy sheet. It does not kink or absorb water and is easy to taper thanks to thicker Dyneema core and thinner cover. High grip, blended cover of Dyneema and Polypropylene means great performance through ratchets and cleats with high resistance to abrasion.

APPLICATIONS	Sheets
MATERIAL	
CORE:	Manufactured from Dyneema SK78 HMPE (High-Modulus Polyethylene) Very light weight - more than 8x lighter than steel wire for a given strength High strength - 80% stronger than steel wire for a given weight Low stretch - see table below Good resistance to chemicals and UV Zero water shrinkage Low creep Low water absorption
COVER:	Manufactured from Dyneema Polypropylene blend Good abrasion Very light weight Very low water absorption
CONSTRUCTION	
TWISTED FIBRE CONSTRUCTION:	Improved abrasion resistance
12 STRAND BRAIDED CORE CONSTRUCTION:	Optimised pitch to yarn twist - improves strength and longevity Firmer rounder rope, aids handling Flexible product and easily handled Torque balanced
8 PLAIT BRAIDED COVER CONSTRUCTION:	Protects load bearing core from dirt and abrasion Round and firm construction

PROPERTIES

RELATIVE DENSITY: 0.95 (Floats) Exact figure varies with diameter

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

MELTING POINT: 140°C

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

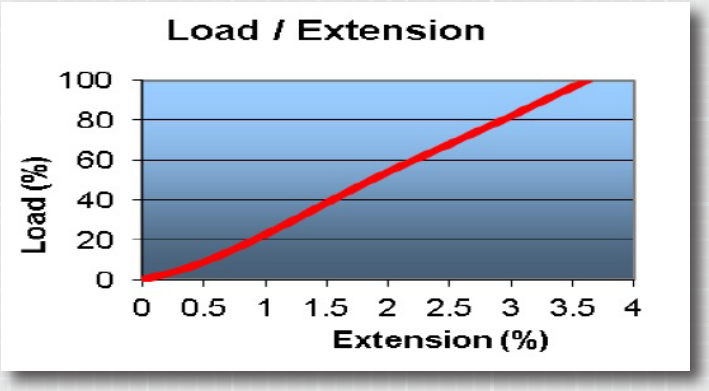
TERMINATIONS

SPLICED EYE TERMINATION: 12 strand uncovered core splice
An allowance of 50x core 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

ELONGATION

Typical working elongation (for a bedded in a rope):

@ 10% of break load: 0.51%
@ 20% of break load: 0.89%



PERFORMANCE

DIAMETER	CIRCUMFERENCE	MASS		AVERAGE STRENGTH			MIN STRENGTH		
mm	Inch	g/m	lb/100 ft	kg	lb	kN	kg	lb	kN
6	7/32	19.4	1.30	1768	3890	17.3	1070	2354	10.5
7	1/4	27.6	1.85	1915	4213	18.8	1520	3344	14.9

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