DATASHEET

Marlow®

DEFENDER

Specifically designed for use in the harshest working environments. The Defender is manufactured with a D12 Max 99 or D12 Max 78 core and a thin protective Dyneema cover that ensures optimum strength is maintained without significant diameter increase.

Manufactured using a 12x1 12-strand construction and colour coated with Marlow's propriatory ArmourCoat, the Defender's core undergoes our "Max" special heating and pre-stretching process which takes the Dyneema material to it's limits, but delivers class leading strength and low stretch.

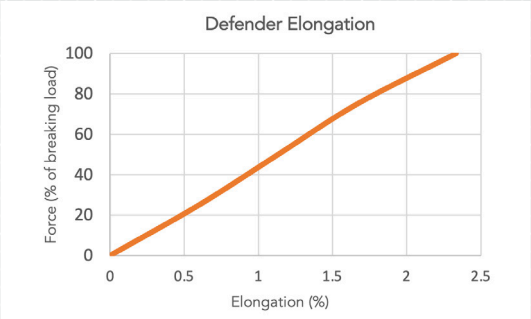
The Dyneema cover is tough and cut resistant, but the contrasting core & cover colour provides clear retirement criteria if the cover is compromised. All Defender Ropes are factory terminated and machine finished and can be supplied with a choice of hook depending on the application.

Material	Nominal Diameter		Mass (Weight)		Minimum Linear Strength ISO 2307			Minimum Spliced Strength			Average Spliced Strength		
Dyneema®	mm	Inch	g/m	lb/100ft	kg	lb	kN	kg	lb	kN	kg	lb	kN
SK78	7	1/4	30.8	2.07	4,722	10,422	46.3	4,250	9,380	41.7	4,570	10,100	44.8
SK78	8	5/16	48.4	3.25	7,756	17,111	76.1	6,980	15,400	68.5	7,510	16,600	73.7
SK78	9	3/8	57.3	3.84	9,700	21,333	95.1	8,730	19,200	85.6	9,390	20,700	92.1
SK78	10	13/32	71.1	4.77	11,111	24,556	109	10,000	22,100	98.1	10,800	23,800	106
SK78	12	15/32	88.6	5.94	13,000	28,667	128	11,700	25,800	115	12,600	27,800	124
SK78	14	9/16	110	7.35	15,667	34,444	153	14,100	31,000	138	15,100	33,300	148
SK78	15	19/32	124	8.32	18,556	41,000	182	16,700	36,900	164	18,000	39,700	177
SK78	16	5/8	141	9.46	21,889	48,222	214	19,700	43,400	193	21,100	46,600	207
SK78	18	11/16	185	12.4	27,333	60,222	268	24,600	54,200	241	26,400	58,300	259
SK78	20	25/32	235	15.8	34,000	74,889	333	30,600	67,400	300	32,900	72,400	323

Material	Nominal Diameter		Mass (Weight)		Minimum Linear Strength ISO 2307			Minimum Spliced Strength			Average Spliced Strength		
Dyneema®	mm	Inch	g/m	lb/100ft	kg	lb	kN	kg	lb	kN	kg	lb	kN
SK99	7	1/4	30.8	2.07	5,567	12,222	54.6	5,010	11,000	49.1	5,440	12,000	53.4
SK99	8	5/16	48.4	3.25	9,133	20,111	89.7	8,220	18,100	80.7	8,940	19,700	87.7
SK99	9	3/8	57.3	3.84	11,444	25,111	112	10,300	22,600	101	11,200	24,600	110
SK99	10	13/32	71.1	4.77	12,778	28,111	126	11,500	25,300	113	12,500	27,500	123
SK99	12	15/32	88.6	5.94	14,889	32,889	147	13,400	29,600	132	14,600	32,100	143
SK99	14	9/16	110	7.35	17,889	39,444	176	16,100	35,500	158	17,500	38,600	172
SK99	15	19/32	124	8.32	21,333	46,889	209	19,200	42,200	188	20,900	45,900	205
SK99	16	5/8	141	9.46	25,111	55,111	246	22,600	49,600	221	24,500	54,000	241
SK99	18	11/16	185	12.4	31,333	69,000	308	28,200	62,100	277	30,700	67,500	301
SK99	20	25/32	235	15.8	39,000	85,667	382	35,100	77,100	344	38,100	83,800	374

Ropes designed in accordance with ISO 10325:2018

Linear MBL refers to unspliced ropes determined in accordance with ISO2307:2019



Dyneema®	Load	Temperature	Creep Rate	Creep Lifetime
SK78	20%	16 Deg. C	0.5% / yr	15 Years
SK99	20%	16 Deg. C	1.1% / yr	10 Years

Key Specifications:

Material:	Dyneema SK99 /SK78
Construction:	12 x 1 single braid construction
Coating:	Marlow ArmourCoat Polyurathane
Relative Density:	0.97 (floats)
Chemical Resistance:	Excellent resistance to most chemicals
UV Resistance:	Very good
Melting Point:	140°C
Critical Temperature:	80°C (exposure to temperatures over this will result in permanent strength loss)
Creep:	Creep is a factor of load, temperature and time. Increasing any of these factors will increase creep.