

Marlow®

Winch Lines

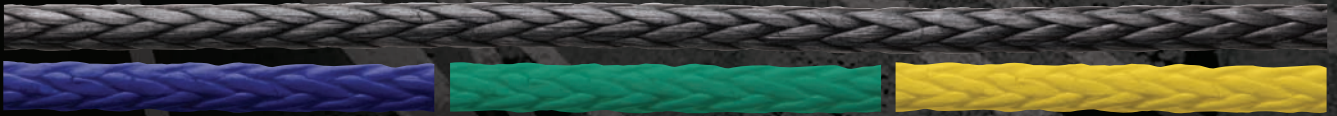
Wire rope replacement with synthetic fibre ropes offers significant strength, handling and safety benefits and Marlow Ropes offers a range of Dyneema® based rope solutions designed for all winching applications.



Technical Fibre Winch Lines

Developed specifically for wire rope replacement, our range of Dyneema® winch lines caters for all winching applications from offroad 4x4 to commercial vehicle recovery and high loads

Dynaline



Wire rope replacement is becoming increasingly important in many winching applications due to the significant strength, handling and safety benefits to be gained from modern synthetic ropes. 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

Marlow Dynaline is a synthetic fibre rope made from Dyneema® SK75 and is specifically designed to replace wire winch ropes. Dynaline has a low stretch, high strength 12-strand construction and is protected with Marlow ArmourCoat to improve abrasion resistance and protect from the ingress of dirt, grit and oil.

Originally designed for use in off road winching and vehicle recovery, Dynaline can be used in all manner of winching and wire replacement applications.

Construction	12 Strand Dyneema® SK75, Pre-stretched, Marlow ArmourCoat	Diameter (mm)	6	8	9	10	11
Features & Benefits	8 x lighter than steel wire for a given strength, 70% stronger than wire for a given weight, Dynaline will not kink, No hazardous wire splinters, No strength loss when overlapped on winch drum, Dynaline floats, Virtually no recoil in the unlikely event of failure	Min Break Load (kN)	28.24	57.19	68.93	85.97	105.65
		Weight (g/m)	16.0	30.9	38.0	48.6	57.1
		Diameter (mm)	12				
		Min Break Load (kN)	120.83				
		Weight (g/m)	66.4				

Dynaline Max



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 and lower stretch than a standard Dynaline 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.

Construction	12 Strand Dyneema® SK75 "Max" Super pre-stretched Marlow ArmourCoat	Diameter (mm)	7	9	11	12	13
		Min Break Load (kN)	68.49	98.45	137.79	164.08	192.86
		Weight (g/m)	35.6	54.0	75.5	90.0	107.0

D12 Plus



For larger winches and high load applications Marlow also manufacture a full range of 12 strand Dyneema® SK75 products up to 40mm diameter and 1255 kN (128 tonnes) break load.

Where even higher break loads for a given diameter are required, D12 Plus is also available in Dyneema® SK90. For applications where flex fatigue is a critical factor, such as two drum traction winches, D12 Plus is available in Dyneema® XB0, a treatment applied at yarn manufacturing stage which increases resistance to bending fatigue.

For detailed specifications or to discuss specific project requirements, please contact our technical department. T: +44(0) 1323 444444 @: technical@marlowropes.com

Construction	12 Strand Dyneema® SK75, SK90 or XB0, Marlow ArmourCoat	Diameter (mm)	16	18	20	22	24
		Min Break Load* (kN)	234.38	310.87	389.32	461.89	490.33
		Weight (g/m)	123	165	210	252	270
		Diameter (mm)	28	30	32	36	40
		Min Break Load* (kN)	665.87	769.86	869.85	1059.12	1255.25
		Weight (g/m)	375	438	501	625	750

* figures for SK75 construction

Technical Comparison

Yield Point

At approximately 60% of it's breaking load, steel wire reaches it's yield point. At and beyond this point steel wire becomes permanently and irrevocably deformed. Not only does any stretch not recover, but the wire becomes stiffer and brittle and must be retired immediately.

An important feature of Dynaline Dyneema® winch lines is that unlike steel wire, Dyneema does not have a yield point and even winch lines taken to just before the point of break, will suffer no damage to the rope and no change in strength or stretch characteristics.

In many applications this has been a critical factor in the calculation of safe working loads.

Dynaline / Wire Rope Comparisons

Diameter (mm)	Minimum Break Load (kN)	
	Dynaline	Wire
9mm	68.93	50.99
10mm	85.97	63.00

Diameter (mm)	Weight (g/m)	
	Dynaline	Wire
9mm	38.0	322.0
10mm	48.6	398.0

Options & Assemblies

We offer a range of innovative cover solutions for different operational conditions as well as factory spliced assemblies and high load Tow Ropes

Dynaline Protech Covers



MGP D 100



MGP T 100



MGP D Tech 50



MGP Tech 50



MGP R 100

In situations of extreme wear and tear or where additional protection is required, Dynaline, Dynaline Max and D12 Plus can be supplied with Protech Covers.

Manufactured from high tenacity polyester, Technora® or Dyneema® or a blended combination, Protech Covers offer outstanding resistance to heat and abrasion and have been used in applications ranging from roadside recovery to military battlefield operations.



Protech Covers	Material	Abrasion Resistance	UV Resistance	Heat Resistance	Friction	Colour
MGP D 100	100% Dyneema®	Outstanding	Very Good	Low	Low	White
MGP T 100	100% Technora®	Excellent	Good	Very High	High	Black
MGP D Tech 50	Dyneema® & Technora® 50/50 blend	Excellent	Very Good	High	Good	White / Black Blend
MGP Tech 50	Technora® & Polyester 50/50 blend	Very Good	Good	High	High	Black / Any Colour
MGP R 100	100% Polyester	Good	Good	Good	Good	Any Colour

Spliced Dynaline Assemblies

Dynaline and Dynaline max are also available in pre-spliced made to order assemblies.

Factory spliced with a tubular steel thimble and a choice of Standard or "Competition" hooks, Dynaline pre-spliced winch lines are available in a range of lengths (or tailor made) with either terminal or tapered end for connection to the winch.

Technora tails for specific high friction / high heat applications can also be added to spliced assemblies.

Standard spliced lengths of 25m, 30m and 38m in all diameters.

Please contact us for further details.

Marlow
DYNALINE



Marlow
DYNALINE
MAX



D-TECH TOW ROPES

Extremely lightweight and strong with virtually no recoil, D-Tech Tow Ropes are specifically designed to eliminate safety concerns that can arise with both wire and nylon kinetic recovery ropes.

The lightweight, high strength Dyneema® core reduces overall vehicle weight and allows deployment by a single person whilst the Technora® cover has excellent heat,

cut and abrasion resistance, improving durability in extreme operating environments.

Construction: 12 Strand Dyneema® core with a braided Technora® cover

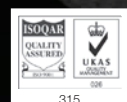
Colours: Black

Termination: 250mm soft eye splice each end

Gross Vehicle Weight (tonnes)	Rope Diameter (mm)	Assembly Length (m)	Assembly Weight (Kg)	Minimum Break Load (Kg)	Colour
0.0 - 7.5	18	4.0	1.1	16,500	Black
0.0 - 12.5	24	4.8	2.2	23,900	Black
0.0 - 25.0	32	4.8	4.6	50,000	Black
0.0 - 40.0	40	6.6	10.5	88,700	Black
0.0 - 65.0	48	8.0	18.7	128,000	Black



Technora



Made in the United Kingdom

Dyneema is a registered Trade Mark of Royal DSM N.V.

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