

# Performance Racing

## Performance Overview

Marlow pioneered the use of synthetic fibers for yachting ropes and in the world of performance racing they still lead the field when it comes to innovation and application – Marlow ropes are designed for and dedicated to the task.

What makes the arena of performance racing unique is the intense level of competition. Only excellence is acceptable in this most demanding of environments where running rigging is constantly subjected to punishing shock loads, particularly in the heavy seas of offshore racing. As boats have become faster and stiffer, the need to eliminate and reduce rope stretch becomes even more important to limit damage to sails and enhance trim.

This drives the design team at Marlow to maximize technological advances in the field of rope production developing some of the lightest performance ropes available. Marlow meets the challenge providing high strength, low weight and low stretch ropes without compromising safety or durability. Feedback from ocean and Olympic racers is constantly incorporated into the research and refinement of new products.

However it isn't just the high-profile campaigns that have benefited from Marlow products. Marlow has re-written the book on rope performance and words such as Dyneema, Nomex, PBO, Spectra and Vectran are now part of every competitive sailor's language.



### MARLOW GRAND PRIX

The new range of high performance covers designed specifically for use with carbon winch drums and in high load applications. With a choice of PBO, Vectran or Dyneema SK75 cores. Choose the core required for your application. Information on performance of these materials is on pages 10-12.

### MGP Nomex

This high performance rope has been specifically designed for use with carbon winch drums and is constructed with some of the strongest fibers available. The cover is a combination of Nomex and continuous filament polyester. MGP Nomex cores can be either PBO, Vectran or Dyneema SK75. The high melting point of Nomex means it can withstand easing and releasing on the winch under the highest loads without melting, while the polyester gives outstanding grip and control.

#### Features:

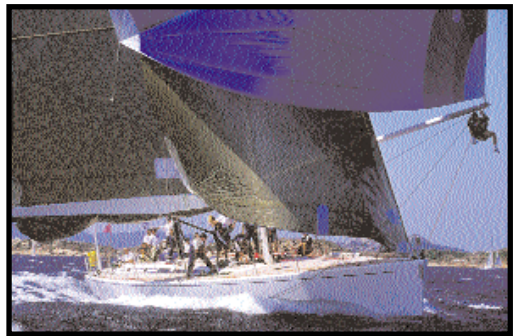
- Precise control under ultra high loads; e.g. runners & mainsheet
- Smooth interaction with winch drums under high loads
- Carbon drum optimized
- Suitable for all winch drums
- Easily spliced
- Will not melt on the winch

### MGP Aramid

This high specification rope has a blended cover of MGP Aramid/ polyester, giving it high wear resistance and its high decomposition point means it won't melt on the winch. MGP Aramid offers outstanding grip on the drum allowing a reduced number of wraps going into and coming out of a tack. This makes it ideal for sheets, but it can also be used for halyards and guys.

#### Features:

- Allows minimal winch wraps
- Constant and precise sail trim
- Carbon drum optimized
- Low stretch – suitable for headsails
- Suitable for all winch drums
- Easily spliced
- Will not melt on the winch



### PBO Racing

The key feature of PBO Racing is that it delivers up to 20% more strength than Vectran and HMPE (Dyneema/Spectra). For example an existing 12mm Dyneema or Vectran line may be substituted for a 10mm PBO line – so less is more.

Features:

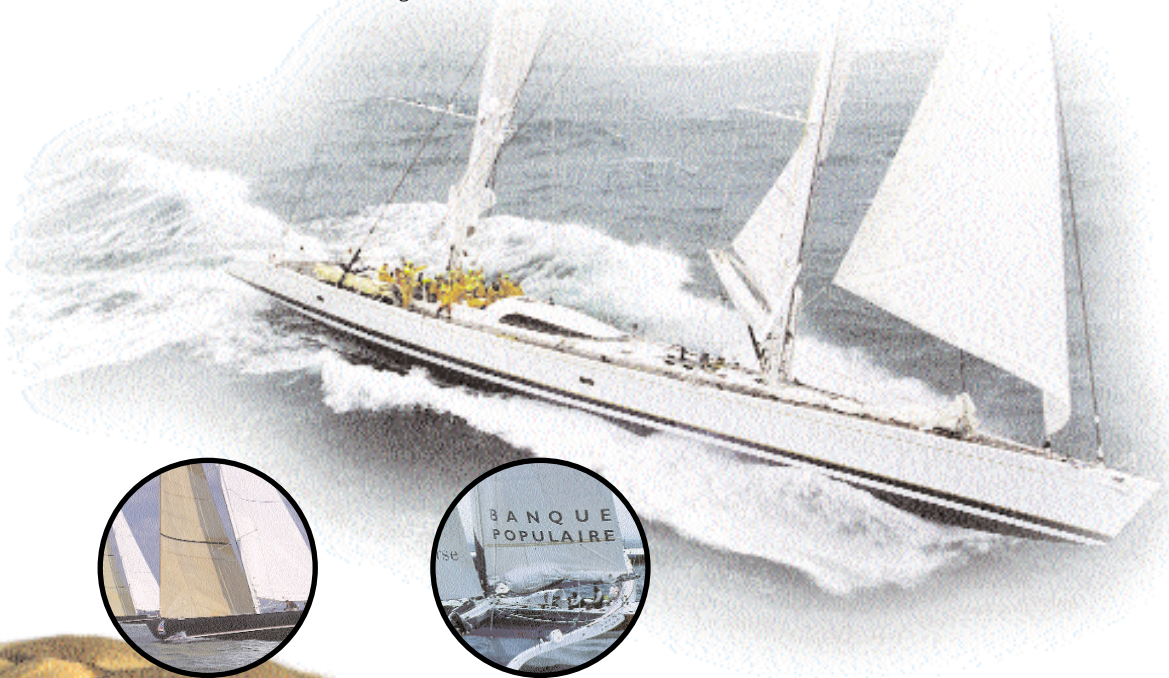
- Allows reduced rope diameters without compromising safety or performance
- Excellent resistance to creep
- Better thermal resistance than Aramid

### Runner Tail

A sophisticated combination of materials are used on Runner Tails to withstand high loads and retain runner tensions and rig control.

Features:

- Blended Aramid/polyester cover withstands high temperatures and friction
- Polyester provides easy handling and excellent grip on winches
- Vectran load bearing core means minimal stretch

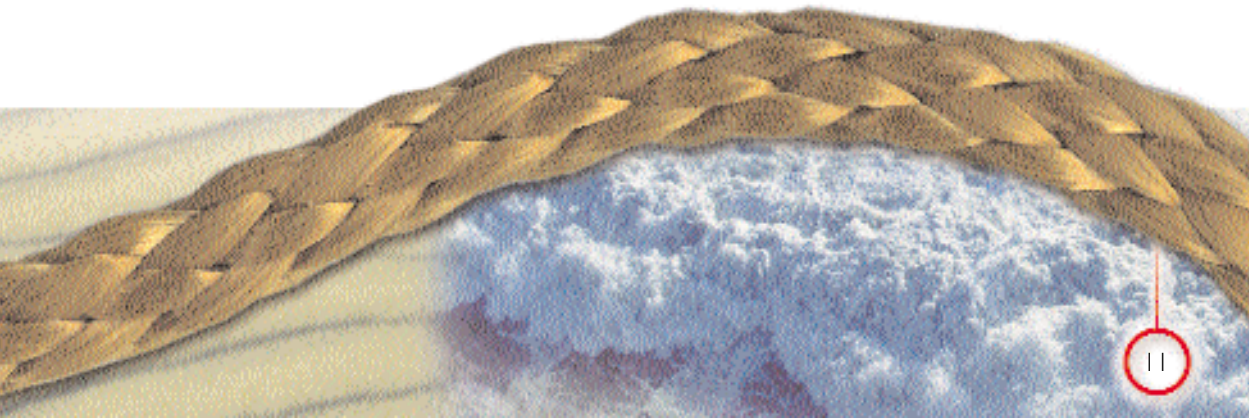


### Vectran Racing

Vectran Racing's low stretch performance makes it ideal for racing halyards, runners, foreguys and outhauls. It is made from a high performance thermoplastic yarn spun from liquid crystal polymer. The outstanding property of this material is that at 50% of the breakload Vectran shows no sign of stretch or creep – most working loads are at 20/30% of the breakload. VR proved itself on the windward sections of the last Whitbread race when there was no distortion of the foresails even in heavy seas with the boat slamming.

#### Features:

- Maintains perfect sail shape and trim
- No noticeable stretch at working loads
- Constant re-tensioning of halyards not required
- Compatible with tight radii of modern deck gear
- Dedicated high performance for racing applications

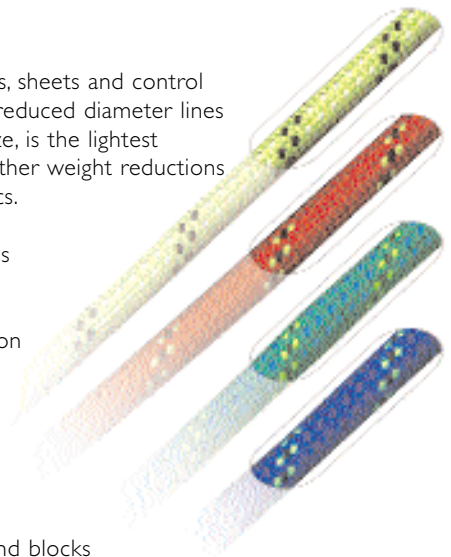


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## D2 Racing











D2 is a highly versatile Dyneema SK75 line suitable for halyards, sheets and control lines. Ideal for racing, it is equally suitable for cruising allowing reduced diameter lines for easier and lighter rope handling. Dyneema SK75, size for size, is the lightest technical fiber in production and stripping the cover allows further weight reductions by 65% while retaining strength, stretch and wear characteristics.

Tapering the cover on spinnaker sheets for example, means less weight at the clew to let the spinnaker fly higher. However, the cover needs to be retained for handling around winches. The inner core is coated with polyurethane to improve adhesion between core and cover giving outstanding performance in clutches and jammers and improving abrasion resistance when uncovered.



### Features:

- Lightweight, high strength, UV stable
- Smoother profile cover to reduce wear on rope and blocks
- Less friction gives faster running and quicker boat maneuvers
- Lightest technical fiber, cover can be stripped
- Dyneema SK75 polyurethane coated inner core
- All cores come Marlow Pre-stretched for added strength
- Suitable for racing and cruising

					<i>uncovered</i>													
6 $\frac{7}{32}$	~	~	~	~	~	~	~	2130	2.1	2.60	1.75	~						
8 $\frac{5}{16}$	3478	3.42	4.4	2.96	1.48	0.99	3008	2.96	4.70	3.16	3490	3.43	4.34	2.92	3008	2.96	4.70	3.16
10 $\frac{7}{16}$	4808	4.73	5.9	3.96	2.23	1.5	4700	4.62	7.35	4.94	5789	5.7	6.64	4.46	4700	4.62	7.35	4.94
12 $\frac{1}{2}$	6665	6.56	9.4	6.32	3.56	2.39	6786	6.68	10.58	7.11	7693	7.57	9.20	6.18	6786	6.68	10.73	7.21
14 $\frac{9}{16}$	9274	9.13	10.6	7.12	4.45	2.99	9212	9.06	14.41	9.68	~	~	~	~	9212	9.06	14.61	9.82
16 $\frac{5}{8}$	11592	11.41	14.0	9.41	5.35	3.59	12032	11.84	18.82	12.65	~	~	~	~	~	~	~	~
18 $\frac{3}{4}$	14919	14.68	19.9	13.37	7.53	5.06	15228	14.98	23.81	16	~	~	~	~	~	~	~	~
20 $\frac{13}{16}$	16171	15.91	24.5	16.46	9.27	6.23	18800	18.50	29.40	19.75	~	~	~	~	~	~	~	~
22 $\frac{7}{8}$	19823	19.51	29.7	19.96	11.23	7.55	22748	22.38	35.57	23.9	~	~	~	~	~	~	~	~
24 1	23474	23.10	35.3	23.72	13.86	9.31	27072	26.64	42.34	28.45	~	~	~	~	~	~	~	~



Diameter  
(mm inches)



Average Break  
Load (kg tons)



Weight  
(kg/100m  
lbs / 100ft)