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Taking Care of your New England Ropes Product

MARNING

The misuse of ropes can be dangerous. Our products may only be used for the purpose they are designed for. The user is responsible for the proper application and supervision of the rope's use and assumes the user is familiar with the necessary safety precautions. We recommend a splice as end connection for all of our products. For Dyneema® products (such as Endura 12 for example) a splice is the only option that should be used, as knots can come undone under a load.



Grand Prix Racing

New England Ropes High Performance Lines have been featured in America's Cup programs as well as on One-Design and Grand Prix Racing Circuits worldwide. Competition and regatta tested by the premier sailors in the industry, we have the right products to optimize your performance on all types of yachts.



Custom Products





24 Carrier Zylon®

Dyneema® SK78 Vectran®, or Zylon®

The ultimate in custom performance, this high performance protective cover is made out of 100% zylon® and is used in specialized applications. As with all custom products, grand prix racing enthusiasts should consult a rigging professional for proper use and application.

Applications: sheets, guys, and runner tails.

Pro-PBO



12-strand Coated Zylon®

Pro-PBO features an extremely durable, 24-carrier polyester cover and a 12-strand coated zylon® core. Pro-PBO comes in 8mm, 9mm, and 11mm sizes.

Applications: sheets, halyards, and guys.

Vec-Tec



24 Carrier Vec Tec



For increased durability and abrasion resistance, Vec-Tec is perfect for use with high tech cores or twelve strands (Endura-12, V-12 or PBO). Very tough and abrasion resistant, Vec-Tec is easily taperable for halyard ends. Sizes: 8-10mm, 10-12mm.

Applications: sheets, halyards, guys, and strops.

PoTeGo



24 Carrier Potego



Potego features a blend of Technora®, polyester, and Gore® fibers. The Gore® fibers will aid in the rope's use on winches in high load applications. Sizes: 5-10mm (custom).

Applications: sheets, halyards, guys, and strops.

Ø Diameter	5mm	8mm 5/16"
Tensile	4,400	9,475
Weight	1.54	3.54

Spinnaker Furling Line



Aramid Core with Polyester Cover

Spinnaker Furling Line is a stiff, compact, high tech rope with a tightly braided polyester cover and a multi-stage braided aramid core. This tight construction yields a highly torque resistant furling cable which can be terminated using mechanical end fittings.

Applications: Can be used with any top down furling system. Highly engineered to resist torque allowing it to transfer rotation from the furler at the bottom of the system to the swivel at the top of the sail and at all points in-between allowing for faster and more even furling of large headsails, gennakers, code zeros and spinnakers.

Ø Diameter	9mm	11mm	33/ ₆₄ "	15mm
Tensile	6,025	7,500	10,000	10,800
Weight	5.20	8.75	12.10	13.00

Dyna-Tec





Technora®, Polyester, Dyneema®







Dyna-Tec is constructed with the ideal balance of Technora®, polyester, and Dyneema® fibers. Offering excellent abrasion resistance, heat dissipation and cut resistance as well as a lower friction coefficient, Dyna-Tec yields the optimum levels of performance.

Applications: runner tails, mainsheets, genoa sheets, and spinnaker sheets.

Ø Diameter	6mm	8mm	10mm	12mm
Tensile	4,600	7,300	11,860	20,600
Weight	1.75	2.95	4.00	6.40

^{*} Tensile specifications represent the average tensile strength of a new rope without terminations.

Poly Tec



24 Carrier Poly Tec

Dyneema®









Ideal balance of Technora® fiber and polyester, engineered to the demanding standards of riggers worldwide, Poly tec offers excellent abrasion and heat dissipation with excellent cut resistance and a level of grip that other high tech fibers don't offer. Poly tec is ready to be used with a variety of cores including our Endura-12 or V-12.

Applications: runner tails, mainsheets, genoa sheets, and spinnaker sheets Also available in cover only. Larger sizes available.

Ø Diameter	6mm	8mm 5/16"	10mm	12mm	14mm 9/16"
Tensile	3,950	8,840	13,100	19,440	21,900
Weight	1.77	4.40	5.40	6.83	8.73

Arc



Technora®, Nomex®, Polyester

Vectran® or Dyneema®

identification.







Applications: runner tails, mainsheets, genoa sheets, and spinnaker sheets.

"Bullet proof"cover with Vectran® or Dyneema® core that utilizes our hybrid performance technology. Arc (abrasion resistant cover) combines the heat resistant fibers Technora® and Nomex® with colored polyester to improve abrasion resistance and aid in line

Ø Diameter	8mm 5/16"	10mm
Tensile	7,500	11,500
Weight	3.50	6.70

Dyneema® Chafe Sleeve



Dyneema®

This Dyneema® cover is perfect for use with high tech cores or twelve strands (Endura-12, V-12 or PBO). It is very tough and abrasion resistant and easily taperable for halyard ends.

Applications: sheets, halyards, guys, and strops sizes:

Sizes: extra small (3-4mm core), small (5-8mm core), Medium (8.5 - 11mm core), Large (12-16mm core).

Endura Braid Euro Style



Polyester

Dyneema® SK78









Applications: all running rigging requiring a durable, low stretch, lightweight line, such as sheets, halyards, guys, topping lifts, reef lines, or low-stretch control.

Endura Braid Euro Style was developed in conjunction with leading riggers worldwide and was tested in the harshest of conditions. The result was that it surpassed the standards of performance time and again. Endura Braid Euro Style features a Dyneema® 12-strand core.

Ø Diameter	5mm	6mm	8mm	10mm	11mm	12mm	14mm
Tensile	3,100	4,500	8,100	10,200	14,900	21,500	25,200
Weight	1.10	1.80	3.00	3.80	5.40	6.60	8.60

V-100



Polyester

Vectran®









The ultimate in high load performance, V-100 features a braided 100% Vectran® 12-strand single braid core treated with our unique marine-tech coating with a highly durable and attractive polyester cover. V-100 is a very strong, low stretch, high-tech line for its size and it has good abrasion resistance and virtually no creep.

Applications: main halyards, genoa halyards, afterguys, and guys.

Ø Diameter	5mm	6mm	8mm 5/16"	9mm 23/ ₆₄ "	10mm	11mm 7/16"	12mm	14mm 9/16"	16mm 5/8"	18mm 3⁄4"
Tensile	2,400	4,600	8,600	9,100	12,600	17,200	19,200	23,500	26,000	33,620
Weight	1.50	2.10	3.50	4.40	5.30	6.50	7.10	9.90	13.40	17.50

WR² Ultra





Dyneema®

WR² Ultra is designed as a wire rope replacement. It's core is prestretched using our proprietary STS Stronger Than Steel Technology and it's protective sheath is comprised of Dyneema® that is coated for increased UV resistance and cover/core bonding.

Applications: life lines, stays, wire rope replacement.

Ø Diameter	4mm	5mm	7mm
Tensile	4,600	6,400	8,800
Weight	0.93	1.34	1.82

STS - STRONGER THAN STEEL®

When looking for a particularly high performing rope, one will automatically think of steel wire ropes. But now we have STS - Stronger Than Steel® Technology.

team, fiber ropes made using this technology, by their very nature, are not only considerably lighter than steel wire ropes, but also take performance

Engineered by TEUFELBERGER's development to a higher level. This has become possible thanks to its combination of high tech fibers, its optimized rope design, and an unprecedented stretching process that changes the rope's structure in a

way that makes it ideally suited for most industrial applications.

Why STS - Stronger Than Steel® Technology?

Generally, ropes used for industrial applications are expected to meet high standards in terms of breaking strength, abrasion resistance, and durability. These parameters have a direct impact on rope performance and consequently on the costs for users. Even if these characteristics are ultimately the deciding factors for many, there are several other details that influence the quality and thus the outstanding customer benefit of STS -Stronger Than Steel® Technology.

The low weight of STS - Stronger Than Steel® Technology ropes (approx. 1/7th of wire ropes of the same diameter) makes them extremely easy to handle. Their highly compact construction gives these ropes tremendous breaking strength in spite of their

- very small cross-section (greater breaking strength than steel wire ropes of the same diameter).
- This makes it possible to sheathe the cores of ropes that are made with this technology, if necessary. Even though the diameter of their core is smaller, such ropes will then still achieve the same breaking strength as a steel wire rope of the same external diameter.
- The extremely firm and circular cross-section obtained as a result of the stretching and compacting processes ensures the smooth running behavior required by industrial applications.
- The stretching process takes the major part of the initial plastic elongation out of the rope and allows users to operate with the same minimal length tolerances that they would get when using wire ropes.
- The compact rope structure with a nearly closed surface and the individual coating of all fibers keep any ingress of dirt to a minimum. This helps reduce internal abrasion and prolongs the rope's service life.
- Their low weight makes ropes made with STS Stronger Than Steel® Technology buoyant. Therefore, they can be used for a vast variety of industrial applications, especially for work in deep water.

HSR



Single braid Heat-set Dyneema® SK75

Comprised of Dyneema® fiber, Stronger Than Steel™ HSR is heat-set which at a microscopic level reorients the molecular chains in a linear fashion, thus ensuring greater load bearing capacity throughout the rope. This process increases the rope's breaking strength through the use of increased temperature and tension and achieves a uniform fiber distribution.

Ø Diameter	1mm	2mm	3mm	4mm 9/32"	5mm	6mm	8mm 7/16"
Tensile	5,200	9,475	12,385	18,700	23,600	26,025	31,530
Weight	0.60	1.30	1.70	2.50	3.30	4.30	5.10



HTS-99



Solid Black



Dyneema® SK99

Ultra-light and exceptionally strong, HTS-99 utilizes 100% Dyneema® SK-99 fiber. The use of this high modulus fiber results in increased strength and excellent creep resistance.

Applications: strops, loops, halyard cores, wire rope replacement.

Ø Diameter	1mm	2mm	3mm	4mm ⁵ / ₃₂ "	5mm	6mm	8mm ⁵ /16"
Tensile	600	2,000	3,500	5,200	10,400	14,000	20,800
Weight	.08	.24	.40	.62	1.18	1.71	2.75

HTS-78







Dyneema® SK78



Very high strength, low stretch, ultra low creep, HTS-78 features 100% Dyneema® fiber. This 12-strand single braid is treated with our unique marine-tech coating for excellent abrasion and uv resistance. This ultra low creep line yields the highest levels of performance, time and again. Benefits include ultra high tensile, low weight, low stretch, and it floats.

Applications: cascade lines, halyards, wire rope replacement, cunninghams, and vang systems.

Ø Diameter	2mm	2.5mm	3mm	4mm	5mm	6mm	8mm	10mm	11mm	12mm	14mm	16mm	18mm	22mm
Tensile	1,000	2,200	2,800	4,300	6,050	9,700	14,500	18,800	24,000	34,300	42,000	58,000	67,000	97,500
Weight	0.20	0.28	0.50	0.65	1.20	1.70	2.55	3.40	4.20	6.15	7.20	10.10	14.74	18.80

Endura 12





single braid is treated with our unique marine-tech coating for excellent abrasion and uv resistance. Benefits: include high tensile strength, low weight, low stretch, and it floats.

Low stretch and very high strength, Endura 12 features 100% Dyneema® fiber. This 12-strand

Dyneema® SK75





Ø Diameter	2mm	2.5mm	3mm	4mm 5/32"	5mm	6mm	8mm 5/16"	10mm	11mm	12mm	14mm	16mm	18mm	22mm
Tensile	1,000	2,200	2,800	4,300	6,050	9,700	14,500	18,800	24,000	34,300	42,000	58,000	67,000	97,500
Weight	0.20	0.28	0.50	0.65	1.20	1.70	2.55	3.40	4.20	6.15	7.20	10.10	14.74	18.80

9



Perfomance Racing

Our Peformance Racing products blend the latest high tech fibers with polyester to offer sailors outstanding levels of performance at a truly great value. By partnering with builders, riggers, and champion sailors, our products will exceed your expectations both on and off the race course.



Endura Braid





Polyester

Dyneema® SK78















Performance, strength, and durability, Endura Braid features a specially engineered 12-strand Dyneema® core, with marine-tech coating, and a 24 carrier braided polyester cover that was created with the competitive sailor in mind. Size for size, Endura Braid outperforms any other HMPE line! Benefits include a very high strength-to-weight ratio, very low stretch, low creep and outstanding durability. Its coated braided core is ideal for durable, tapered sheets and halyards.

Applications: all running rigging requiring a durable, low stretch, lightweight line, such as sheets, halyards, guys, topping lifts, reef lines, or low-stretch control lines.

Ø Diameter	5mm	6mm	8mm 5/16"	10mm	11mm	12mm	14mm	16mm	18mm
Tensile	3,100	4,500	8,100	10,200	14,900	21,500	25,200	29,000	40,000
Weight	1.10	1.80	3.00	3.80	5.40	6.60	8.60	11.80	15.80



Endura Braid Euro Style



Polyester

Dyneema® SK78

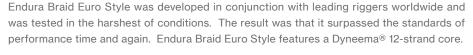












Applications: all running rigging requiring a durable, low stretch, lightweight line, such as sheets, halyards, guys, topping lifts, reef lines, or low-stretch control.

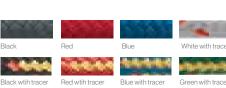
Ø Diameter	5mm 3/16"	6mm	8mm 5/16"	10mm	11mm	12mm	9/16"
Tensile	3,100	4,500	8,100	10,200	14,900	21,500	25,200
Weight	1.10	1.80	3.00	3.80	5.40	6.60	8.60

V-100



Polyester

Vectran®



The ultimate in high load performance, V-100 features a braided 100% Vectran® 12-strand single braid core treated with our unique marine-tech coating with a highly durable and attractive polyester cover. V-100 is a very strong, low stretch, high-tech line for its size and it has good abrasion resistance and virtually no creep.

Applications: main halyards, genoa halyards, afterguys, and guys.

Ø Diameter	5mm	6mm	8mm 5/16"	9mm 23/64"	10mm	11mm 7/16"	12mm	14mm 9/16"	16mm 5/8"	18mm 3/4"
Tensile	2,400	4,600	8,600	9,100	12,600	17,200	19,200	23,500	26,000	33,620
Weight	1.50	2.10	3.50	4.40	5.30	6.50	7.10	9.90	13.40	17.50

T-900







Polyester

Dyneema® and Technora®







White w/green fleck White w/blue fleck White w/red fleck

A low stretch and low creep main halyard, T-900 features our pioneering blend of Dyneema® and Technora® in its core with a durable polyester jacket. A combination of high strength, low weight plus low creep, T-900 is an excellent choice for static loads and is a more economical option to V-100.

Applications: halyards and guys.

Ø Diameter	6mm	8mm	10mm	11mm	12mm
Tensile	4,700	6,800	11,000	14,300	15,700
Weight	2.30	3.20	5.10	5.50	6.40

VPC



Polyester

Vectran® and Polyolefin











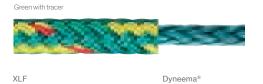
VPC is a unique mid-tech product for sheets and halyards, utilizing hybrid performance technology. It features a strong blended Vectran® and polyolefin core with a durable polyester cover. VPC fills the gap between performance polyester lines and ultra high performance racing lines.

Applications: Designed with the casual racer and offshore cruiser in mind, VPC will result in noticeable performance improvements when used for mainsheets, halyards, or jib sheets.

Ø Diameter	6mm	8mm	10mm	11mm	12mm
Tensile	3,200	5,500	6,500	8,500	10,200
Weight	1.80	4.75	4.80	5.90	6.40

Flight Line











Strong and lightweight sheets, perfect for tapering, Flight Line will certainly take-off with its lightweight, non-absorbent xlf cover and its 100% braided Dyneema® core. Flight Line is a strong, lightweight, flexible, low-stretch line with a braided core that is easily tapered. It's soft on the hands and gets even softer with use.

Applications: In general, Flight Line is used as a light air spinnaker sheet, mainsheet, control lines, and topping lifts. It's perfect as a light air spinnaker sheet on larger one designs such as ynglings, lightenings, and thistles. Also used as a mainsheet for performance dinghies.

Ø Diameter	6mm	8mm	9.5mm
Tensile	2,500	4,000	4,700
Weight	1.40	2.20	3.20

Nexus Pro





Dyneema® with Spun Filament Polyester

Dyneema® SK78





The latest innovation from New England Ropes, Nexus Pro has been developed in cooperation with our competitive sports partners and sailers. It is now the gold standard for performance-minded sailors. Nexus Pro has a durable, lightweight cover that offers excellent grip and holding power. The core is pure Dyneema® for ultra-strength and lowstretch.

Applications: Designed for today's newest one design sheets and control lines. Perfect for boats that require high tensile such as J70, Etchells, Melges, J24, and larger one-design

Ø Diameter	5mm	6mm	7mm	8mm	10mm
Tensile	2,500	3,600	6,000	7,300	11,000
Weight	.97	1.15	1.75	2.40	3.40

Salsa Line



Dyneema® and Spun Filament Polyester







Salsa Line is ultra strong, ultra soft, and the perfect sheet for larger one designs and keelboats. Your hands will love this soft and exceptionally strong single braid constructed of Dyneema® and spun filament polyester. It's very easy to splice.

Applications: Perfect for boats that require high tensile, such as J24s, Sonars, Finns, and larger performance boats. Mainsheets, genoa sheets, and traveler line.

Ø Diameter	6mm	8mm	9.5mm
Tensile	2,850	4,000	5,000
Weight	1.80	2.90	3.50





Dinghy and One Design Racing

Our full line of dinghy and one design racing products can fully outfit prams to sport boats and everything else in between. These small diameter lines are strong, low stretch, and lightweight ensuring peak performance every time.



Poly Tec Dinghy Range





Poly Tec Dinghy Range is the ideal balance of Technora® and polyester fibers, engineered to the demanding standards of riggers worldwide. Poly Tec Dinghy Range offers excellent abrasion and heat dissipation, excellent cut resistance, and a level of grip that other high tech fibers just don't offer. Poly Tec Dinghy Range is ready to be used with a variety of cores including our Endura-12 or V-12.

Applications: runner tails, mainsheets, gena sheets, and spinnaker sheets.

Also available in cover only.

Ø Diameter	3.5mm 5/32"	5mm	6mm	7mm 5/16"
Tensile	1,860	3,000	5,590	8,840
Weight	0.90	1.50	3.00	4.20

Spyder Line















This dinghy control line got its name because of its spider web-like strength thanks to its Dyneema® core and twill pattern (smooth) cover. Spyder Line is just the right small diameter line needed for higher load applications. It is very strong and low stretch, and is flexible yet firm enough to be fed through small leads, micro blocks, and purchase systems. Sizes over 1.8mm have a braided core, allowing for additional performance modifications.

Applications: Dinghy and small one design cunninghams, traveler lines, vang systems, trapeze lines, outhauls, topping lifts, halyards, and twings. The 1.8mm and 2.8mm lines are perfect sail ties for the performance Opti sailor.

Ø Diameter	1.8mm	2.8mm	3.8mm	4.8mm
Tensile	350	1,250	1,860	3,000
Weight	0.20	0.50	0.85	1.40

Finish Line



Polyester

Polyester







The strongest pre-stretch line on the market, Finish Line is made from high tenacity tensionset polyester with an 8-strand "nubby" cover and continuous filament core.

Applications: Dinghy outhauls, vang systems, cunninghams, hiking strap lines, centerboard lines, topping lifts, and halyards. Perfect all-purpose control line for 420s, V-15s, FJs, JY15s, Flying Scots, Laser IIs, & Hobies.

Ø Diameter	3mm	4mm 5/32"	5mm	6mm
Tensile	500	920	1,550	2,000
Weight	0.60	0.80	1.30	1.70

Mini V



Mini V has a tight polyester cover and a flexible Vectran® core. It is ideally suited for dinghy control lines where a high strength to size ratio is needed along with low stretch, no creep, and excellent knotability.

Applications: A good choice for small-boat control lines or other applications needing a micro-sized no-stretch braid.

Ø Diameter	2mm 5/64"	3mm	4mm 5/32"
Tensile	270	930	1,440
Weight	0.20	1.90	0.90

Bzzz Line



It's single braid construction makes Bzzz Line kink-free, while the unique combination of spun polyester and multi-filament polypropylene makes it soft on the hands and lightweight. Unlike other single braids that flatten out after time or squish in cleats, Bzzz Line retains its round shape allowing for better grip and ease of cleating. It also runs smoothly through blocks and stays soft use after use.

Applications: Perfect mainsheet for Lightenings, Lasers, Optimists, and Stars. Works well on larger boats as control lines and mainsheet fine-tunes.

Ø	7mm	8mm
Diameter	9/32"	5/16"
Tensile	1,750	3,000
Weight	1.90	2.50

Regatta Lite



12-Strand Multi-Filament Polypropylene



Lightweight and great to handle, Regatta Lite is a 12-strand, single braid, multifilament polypropylene line that is extremely lightweight (either wet or dry), does not kink, and is easy to handle.

Applications: dinghies / small keel boats, mainsheets, control line. Ideal line for halyard tail on larger boats. 8mm meets USCG specification 46 CFG 180.70 as a life line on a ring life buoy.

Ø Diameter	6mm	8mm	10mm
Tensile	1,050	2,560	3,200
Weight	1.30	2.20	2.90

One-Design Tow Line



16-Strand Multi-Filament Polypropylene

Bouyant, lightweight line that's perfect for small one-design Bow/Tow Lines. One-Design Tow Line is a braided 16-plait of XLF fibers that allow it to float easily. It's round, firm shape, is ideal for handling and tying a knot for security.

Ø Diameter	6mm	8mm	10mm
Tensile	787	1,460	2,020
Weight	0.94	1.60	2.55





Performance Cruising

New England Ropes performance cruising products have been staples on cruising sailboats for decades All of our cruising products provide the best levels of performance at an unparalleled value.



Sta-Set Solid Colors

Blue



Double Braid Polyester

Braided Polyester







Sta-Set is the quintessential proven performance double braid. As the #1 double braid in America, Sta-Set is a strong, flexible, and long wearing line. It is high strength, low stretch, and extremely durable, yet it still remains soft over time. Sta-Set is both easy to handle and splice.

Applications: A true multi-purpose line used for sheets and controls on a wide range of boats from 420s and Flying Scots to Keelboats. The ideal line for collegiate programs and sailing schools looking for a high quality line with superior durability and dependability. Perfect for mainsheets, jib sheets, and control lines.

Ø Diameter	5mm	6mm	8mm 5/16"	10mm	11mm	12mm	14mm	16mm	18mm
Tensile	1,400	2,350	3,850	5,100	7,000	10,100	11,700	16,900	23,500
Weight	1.10	2.00	3.10	4.30	6.00	7.80	10.10	11.90	17.00

The tensile strengths for the solid color versions of sta-set is approximately 5% less than the white version.

Sta-Set Fleck Colors



Double Braid Polyester

Braided Polyester







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Ø Diameter	5mm	6mm	8mm	10mm	11mm	12mm	14mm	16mm	18mm
Tensile	1,400	2,350	3,850	5,100	7,000	10,100	11,700	16,900	23,500
Weight	1.10	2.00	3.10	4.30	6.00	7.80	10.10	11.90	17.00

The tensile strengths for the solid color versions of sta-set is approximately 5% less than the white version.

Sta-Set X

White with tracer



Spun and Filament Polyester

Parallel Fiber Polyester







look w/tracer Plus flook w/tracer Creen flook w/tracer

A high strength, low stretch line with a patented parallel fiber core and a braided cover made from a blend of spun and filament polyester. The strongest and lowest stretch polyester line available. Excellent value - an ideal replacement for wire halyards.

Applications: On cruising boats, use for halyards, spinnakers, and guys.

Ø Diameter	5mm 3/16"	6mm	8mm	10mm 3/8"		12mm	14mm 9/16"	16mm 5%"	18mm 3/4"
Tensile	1,900	2,800	4,400	5,300	7,700	9,700	13,200	14,500	21,600
Weight	1.30	2.20	3.40	4.50	6.10	8.40	9.50	11.80	17.70

Regatta Braid



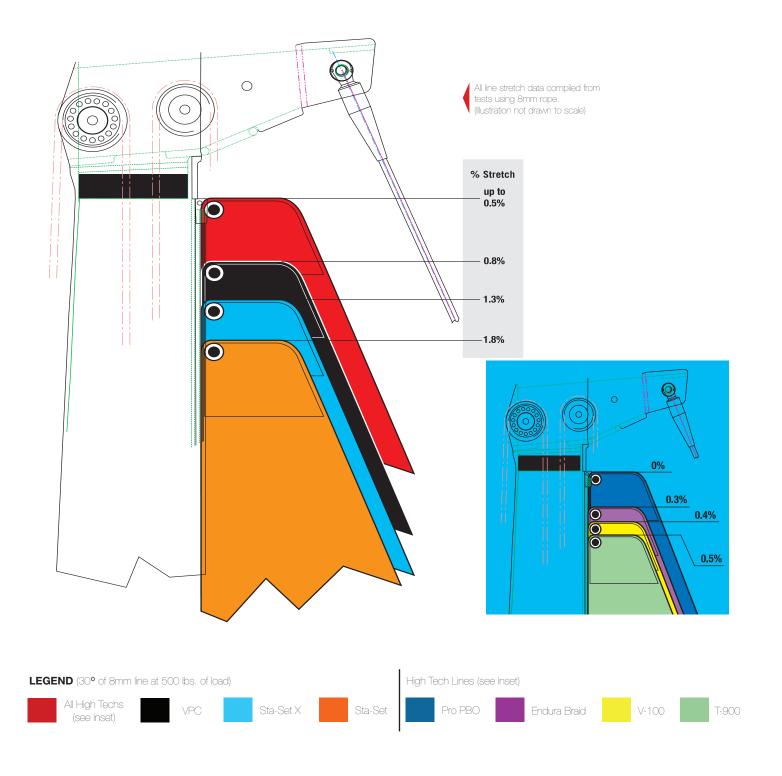
Spun and Filament Polyester

Flexible and easy to handle, Regatta Braid is 12-strand single braid made from spun and filament polyester. This soft and supple line runs freely and does not kink.

Applications: Mainsheets and furling lines.

Ø Diameter	6mm	8mm 5/16"	10mm	11mm 7/16"	12mm	16mm
Tensile	2,550	3,300	4,800	6,500	8,000	12,400
Weight	2.20	3.00	4.00	6.30	7.00	10.30





Line Stretch in the Real World

Comparing the strentch of some of New Engalnd Ropes' High Tech Lines



New England Ropes 50th Anniversary

New England Ropes is proud to celebrate it's 50th Anniversary of producing quality, innovative products that provide solutions to our customers on the water.





"Congratulations on 50 successful years!! Without New England Ropes there would be no West Marine! What a great long term synergistic relationship! "

Randy Repass, CEO, West Marine

"Great products made by great people - New England Ropes is such a valued business partner. Wishing you another 50 years as good as the first!"

Wayne Hamilton, Owner, Hamilton Marine





"On my TP52, Melges 24, my Moth, and more, New England Ropes always has the right size products made with the right material to keep me in the game. That's why I don't use anything else. Congrats on 50 years! "

Bora Gulari, Olympic Racer and New England Ropes Sponsored Athlete

"The crew at the Oyster Bay Boat Shop, in partnership with New England Ropes, have continued to supply the industry's demand for a premium product line of cordage at an exceptional value and quality second to none! We look forward to a continued long term relationship with our most important vendor - here's to another 50 years!!"

Bam Miller, Oyster Bay Boat Shop





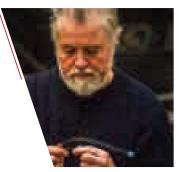
Many thanks to our fine customers for the last 45 years and our partnership with New England Ropes and Sailing Services, Inc. to make the rest of our products work so well !

Bring on the next 50 years of happy customers!

Brooks Jones, Sailing Services

"I have been working with New England Ropes throughout my career, and I can always depend on their products and great service! Our latest project we are working on is the Disney replica of the Columbia Rediviva. The original ship, built in Massachusetts, was the first U.S. vessel to circumnavigate, and the Columbia River was named after it."

Brion Toss, Brion Toss Rigging





""One of the main reasons for our decision to acquire the company New England Ropes 10 years ago, was that we knew we would benefit from a very strong and valuable brand for pleasure marine ropes. We are excited that our experienced associates continue to develop the customer value through innovative products and outstanding service. This is the essence of the most recognized brand in the boating community in the United States of America, New England Ropes."

Florian Teufelberger, CEO, Teufelberger Holding AG



Traditional Rigging

If you're outfitting yesterday's classic vessel but are looking for strong durable lines with today's technology, look no further than our lines for traditional vessels. Our traditional rigging lines are all easy to handle, flexible, extremely strong, and abrasion resistant all while maintaining that classic look you desire.



Vintage 3-Strand

Natural

3-Strand Spun and Filament Polyester



Low stretch running rigging available in a classic shade just perfect for the traditional vessel. Excellent abrasion resistance with low stretch and high strength. Easy to splice.

Applications: On dinghies and traditional boats, Vintage 3-Strand is used for halyards and control lines.

Ø Diameter	4mm 5/32"	6mm	8mm	10mm	11mm	12mm	16mm	18mm	24mm
Tensile	730	1,450	2,100	3,450	4,150	6,200	12,400	11,000	Call
Weight	0.67	1.67	2.60	4.40	5.10	7.30	15.00	16.50	28.75

Vintage Sta-Set



Braided Polyster

Braided Polyester

The #1 double braid in America is now available in a traditional classic shade! High strength, low stretch, extremely durable, Vintage Sta-Set still remains soft over time. It is both easy to handle and splice.

Applications: Perfect for mainsheets, jib sheets, and control lines.

Ø Diameter	6mm	8mm 5/16"	10mm	11mm	12mm	14mm 9/16"
Tensile	1,700	2,700	4,500	5,600	7,500	8,500
Weight	2.10	3.50	5.45	6.10	6.70	10.60

Endura Classic



Dyneema® SK75, Technora®, XLF

Dyneema

The perfect compliment for the traditional vessel, Endura Classic has a specially engineered 12-strand Dyneema® core with marine-tech coating along with a 24 carrier braided polyester cover which is available in a classic color.

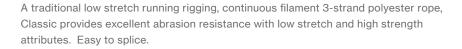
Applications: all running rigging requiring a durable, low stretch, lightweight line, such as sheets, halyards, guys, topping lifts, reef lines, or low-stretch lines.

Ø Diameter	8mm 5/16"	11mm	12mm	13mm	14mm	16mm 5/8"
Tensile	7,900	10,500	15,400	21,800	23,500	Call
Weight	2.90	4.50	5.45	6.65	8.60	Call

Classic



3-Strand Continuous Filament Polyester



Applications: On dinghies and traditional boats, use for halyards and control lines.



Ø Diameter	5mm 3/16"	6mm	8mm 5/16"	10mm 3/8"	11mm 7/ ₁₆ "	12mm	16mm 5/8"	18mm	22mm 55/64"	24mm 1"
Tensile	1,090	2,150	2,650	4,400	5,700	7,500	11,600	14,650	18,500	25,450
Weight	1.10	2.00	2.90	4.80	5.90	7.90	11.60	15.90	22.80	29.70

Spun Classic



3-Strand Spun Polyester

For a traditional look and feel, a conventional 3-strand spun polyester rope, Spun Classic is a soft, free running rope that resists jamming and kinking.

Applications: On classic boats and dinghies, use for sheets, halyards, and control lines. Also use as sail maker's bolt rope.

Ø Diameter	5mm	6mm	8mm 5/16"	10mm 3/8"	7/16"	12mm	14mm 9/16"		18mm 3/4"	20mm 7/8"	22mm
Tensile	1,200	1,330	2,000	2,650	3,250	4,700	5,250	6,700	10,000	15,225	Call
Weight	1.40	1.90	2.70	3.60	4.80	6.00	8.90	10.10	13.30	19.29	Call

Spun Polypropylene



3-Strand XLF

Spun polypropylene bridges the gap between modern cordage and traditional appearance. Extremely light fibers make spun polypropylene long-lasting, abrasion-resistant, low-stretch, and resistant to water absorption. Its advantages in comparison to traditional cordage are low stretch, durability, resistance to abrasion, and lack of water absorption. It can also be used for decorating purposes.

Ø Diameter	8mm 5/16"	10mm 3/8"	12mm	14mm 9/16"	16mm 5/8"	18mm	20mm	22mm 55/64"	24mm 1"	28mm 17/64"
Tensile	2,160	3,215	4,560	6,270	7,860	10,120	12,365	15,065	16,860	22,700
Weight	1.95	3.00	4.90	6.30	8.30	9.50	12.30	14.70	17.00	23.30





Mega Yachts

From rigging lines to docking and mooring lines, New England Ropes come in larger diameters that are constructed to outfit the largest ships sailing the seas.



Endura Braid







Polyester

Dyneema®





Performance, strength, and durability for the competitive sailor, Endura Braid features a specially engineered 12-strand Dyneema® core, with marine-tech coating, and a 24-carrier braided polyester cover.

Applications: All running rigging requiring a durable, low stretch, lightweight line, such as sheets, halyards, guys, topping lifts, reef lines, and low-stretch control lines.

Ø Diameter	14mm	16mm	18mm	22mm	24mm	28mm
Tensile	25,200	29,000	40,000	53,900	70,000	96,000
Weight	8.60	11.80	15.80	20.90	27.10	34.40

T-900



White with red and blue tracers



Polyester

Dyneema & Technora®









A low stretch and low creep main halyard, T-900 features our pioneering blend of Dyneema® and Technora® in its core with a durable polyester jacket. A combination of high strength, low weight plus low creep, T-900 is an excellent choice for static loads and is a more economical option to V-100.

Applications: halyards and guys.

Ø Diameter	14mm 9/16"	16mm	18mm	20mm 7/16"	22mm	24mm	26mm
Tensile	21,750	29,800	35,000	48,000	58,000	64,840	74,300
Weight	8.80	11.90	13.00	17.30	20.30	27.60	21.10

HTS-78





Dyneema® SK78









Very high strength, low stretch, ultra low creep, HTS-78 features 100% Dyneema® fiber. This 12-strand single braid is treated with our unique marine-tech coating for excellent abrasion and uv resistance. This ultra low creep line yields the highest levels of performance, time and again. Benefits include ultra high tensile, low weight, low stretch, and it floats.

Applications: cascade lines, halyards, wire rope replacement, cunninghams, and vang systems.

Ø Diameter	14mm	16mm 5/8"	18mm	22mm	24mm	28mm	30mm	33mm 15/16"	34mm 13/8"	36mm 1½"	40mm 15%"	42mm 1¾"	48mm 2"	56mm 21/4"
Tensile	42,000	58,000	67,000	97,500	114,000	148,000	171,000	190,000	212,000	228,000	283,000	335,000	381,000	537,000
Weight	7.20	10.10	14.74	18.80	23.40	31.00	36.60	40.50	45.40	48.80	64.40	70.00	82.20	114.50

Mega Braid



12-Strand Nylon



Mega Braid's unique 12-strand, single braid construction offers a combination of good looks, superb handling characteristics, excellent strength, and controlled elongation. It's flexible, easy to handle, resists kinking, and is both easy to coil and flake. Available in 600' spools or custom spliced.

Applications: Anchor and dock lines for boats over 40'.

Ø Diameter	16mm	18mm	22mm	25mm 1"	28mm	30mm 1½"	36mm
Tensile	10,300	13,400	21,100	24,900	34,900	41,000	48,000
Weight	9.90	14.00	17.20	25.80	34.00	36.00	55.50

Double Braid Nylon

White / Gold with trace



Double Braid: high-grade marine nylon















The perfect combination of high-grade marine nylon, special torque balanced construction, and a unique stabilization process produces this long wearing line that resists kinking. Double Braid Nylon has superb handling and the largest assortment of colors on the market. Available by the spool or in packaged, factory-spliced dock and anchor lines.

Applications: Dock lines, anchor lines (available in white/gold only) and mooring lines.

Ø Diameter	5mm	6mm	8mm 5/16"	10mm 3/8"	11mm	12mm	9/16"	16mm	18mm	22mm	24mm 1"	28mm 1 1/8"	30mm 1 1/4"
Tensile	1,200	2,100	2,900	4,800	6,700	8,000	12,300	13,100	20,500	24,750	32,750	43,700	60,250
Weight	0.90	1.60	2.60	4.20	5.20	7.00	9.20	10.00	15.00	19.30	24.70	34.50	41.00

to handle and splice.

Sta-Set



Double Braid Polyester

Braided Polyester















Applications: A true multi-purpose line used for sheets and controls on a wide range of boats from 420s and Flying Scots to Keelboats. The ideal line for collegiate programs and sailing schools looking for a high quality line with superior durability and dependability.

Perfect for mainsheets, jib sheets, and control lines.

Sta-Set is the quintessential proven performance double braid. As the #1 double braid in America, Sta-Set is a strong, flexible, and long wearing line. It is high strength, low stretch, and extremely durable, yet it still remains soft over time. Sta-Set is both easy

Ø Diameter	5mm	6mm	8mm 5/16"	10mm	11mm	12mm	9/16"	16mm	18mm
Tensile	1,400	2,350	3,850	5,100	7,000	10,100	11,700	16,900	23,500
Weight	1.10	2.00	3.10	4.30	6.00	7.80	10.10	11.90	17.00

The tensile strengths for the solid color versions of sta-set is approximately 5% less than the white version.

^{*} Larger Sizes Available. Please contact us for specifications.





Anchoring and Docking

When it's time to anchor or tie up your vessel, place your trust in New England Ropes. Whether you choose our Premium 3-Strand Nylon, Double Braid Nylon, Mega Braid, or Mega Plait, you can be sure that every line will be easy to handle, flexible, extremely strong and long lasting.



Premium 3-Strand Nylon



3-Strand high grade marine Nylon

Premium 3-Strand Nylon is a long-wearing, flexible and easy-to-handle rope that has greater strength and better abrasion resistance than all other 3-strand nylon lines. The highest tenacity nylon treated with our proprietary Marine Tech coating increases its wet strength and improves its fiber-to-fiber abrasion.

Applications: dock lines, anchor lines, and mooring lines.



Ø Diameter	6mm		10mm		12mm						
Tensile	2,100	3,000	4,250	6,000	7,500	8,800	11,650	17,150	22,300	27,700	35,800
Weight	1.60	2.40	3.50	4.60	6.30	8.00	9.60	13.70	18.70	24.30	31.10

Double Braid Nylon



Double Braid: high-grade marine nylon



Black

The perfect combination of high-grade marine nylon, special torque balanced construction, and a unique stabilization process produces this long wearing line that resists kinking. Double Braid Nylon has superb handling and the largest assortment of colors on the market. Available by the spool or in packaged, factory-spliced dock and anchor lines.

Applications: Dock lines, anchor lines (available in white/gold only) and mooring lines.

Ø Diameter	5mm 3/16"	6mm	8mm 5/ ₁₆ "	10mm	11mm	12mm	14mm 9/16"	16mm	18mm	22mm	24mm 1"	28mm 1 1/8"	30mm 1 1/4"
Tensile	1,200	2,100	2,900	4,800	6,700	8,000	12,300	13,100	20,500	24,750	32,750	43,700	60,250
Weight	0.90	1.60	2.60	4.20	5.20	7.00	9.20	10.00	15.00	19.30	24.70	34.50	41.00

^{*} Larger Sizes Available. Please contact us for specifications.

Dinghy Tow Rope



Double Braid: high-grade marine nylon



Dinghy Tow Rope is a durable, brightly colored, spliceable tow line that floats on the surface of the water for improved visibility. This double braided rope of nylon over polypropylene is torque free and non hockling. It's braided design is easily spliced and easy to handle. Dinghy Tow Rope retains its strength when wet or dry.

Aplications: Dinghy tow rope or dinghy painter.

Ø Diameter	10mm 3/8"	11mm
Tensile	2,900	5,050
Weight	3.60	5.30

Mega Braid



12-Strand Nylon



Navy

Mega Braid's unique 12-strand, single braid construction offers a combination of good looks, superb handling, excellent strength and controlled elongation. It's flexible and is easy to coil or flake. Comes in 600' spools or custom spliced.

Applications: Anchor and dock lines for boats over 40'.

Ø Diameter	16mm	18mm	22mm	25mm 1"	28mm	30mm 1½"	36mm 1½"
Tensile	10,300	13,400	21,100	24,900	34,900	41,000	48,000
Weight	9.90	14.00	17.20	25.80	34.00	36.00	55.50

Plait



Tandem Braid High-Grade Marine Nylon

An anchor line specially designed for use in popular mechanical windlasses, Plait strikes a balance between a supple, firm, easy handling line that can be used in mechanical windlasses without abraiding or fraying. Engineered to work in most major windlass models and uniquely designed to be spliced to chain.

Applications: anchor lines (particularly for motorized windlasses).

Ø Diameter	12mm	14mm 9/16"	16mm
Tensile	8,000	9,200	10.400
Weight	6.10	7.40	9.20

Mega Plait

White



Tandem Braid High-Grade Marine Nylon

Mega Plait strikes a balance between a supple, firm, easy handling line that can be used in mechanical windlasses without abrading or fraying. Its unique tandem braid design results in a cube-shaped rope that functions well in mechanical windlasses. It will not abraid or become frayed as a result of its unique shape and is heat-set to increase its performance and durability when put into service.

Applications: anchor lines (particularly for motorized windlasses).

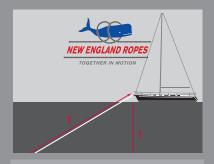
Ø Diameter	12mm	14mm 9/16"	16mm	18mm
Tensile	8,000	9,500	11,000	15,000
Weight	6.20	8.00	9.30	14.00

WHAT SIZE AND HOW MUCH LINE?

The size, length and type of line will depend on a number of factors including the length, weight and type of boat. The following information is intended as a guide only. Docking in exposed waters, strong winds or tides may require larger or additional lines.

SIZE SELECTION TABLE

Boat	Dock	Anchor	Mooring
Length	Line	Line	Pendant
up to 20'	3/8"	3/8"	1/2"
20'-30'	1/2"	1/2"	5/8"
30'-35'	1/2"	1/2"	3/4"
35'-40'	1/2"	5/8"	7/8"
40'-45'	5/8"	3/4"	1"
45'-55'	5/8"	7/8"	1"
55'-65'	3/4"	1"	1 1/4"



HOW MUCH SCOPE?

Scope is the ratio of water depth to anchor line paid out. A scope of 7:1 will usually achieve appropriate holding power. In crowded anchorages a shorter scope may be required, and in stronger winds a longer scope is recommended.



TYPICAL DOCKLINE ARRANGEMENT

Fore & Aft Lines are usually ²₃ of the length of the boat. SPRING LINES are usually equal to the length of the boat. The position of the cleats on your boat and dock may affect the length of the dock line.

Packaged Dock Lines



Professionally manufactured and finished by New England Ropes trained associates, our pre-packaged Premium 3-Strand and Double Braid dock lines ship to you ready to use.

Premium 3-Strand nylon dock lines are made utilizing a four-stage balanced construction with heat stabilization for a durable, long-lasting rope. This attention to detail produces a dock line that is easy to handle and will not harden with age. They are professionally hand spliced with five tucks, a whipped bitter end and a 12" eye.

Our Double Braid is the strongest and easiest-to-handle line you can buy that stays flexible throughout its service life. The core and cover are constructed from the highest quality treated nylon. The combination of high-grade marine nylon, special torque-balanced construction, and a unique stabilization process produces a long-wearing, easy-to-handle line that resists kinking. Our double braid lines offer controlled elongation and excellent abrasion resistance. Double braid lines stretch slightly less but are stronger than three-strand lines. Each line has a professionally spliced 12" eye.

Packaged Anchor Lines



Premium Three-Strand Nylon lines are designed to handle the dynamic shock loads caused by boat motion and are treated for maximum abrasion-resistance. New England Ropes anchor lines are made of high-quality premium nylon using a uniform construction process and a marine coating that creates an extremely abrasion-resistant, snag-resistant and long-lasting line. Each anchor line is factory eye-spliced with a high-quality stainless steel thimble at one end and a heat-sealed bitter end. We package a variety of sizes and lengths to accommodate all your anchoring needs.

Splicing Tools and Instructions



New England Ropes unifid kit includes all that you need to splice your very own custom goods at home. Our kits include detailed splicing instructions for a multitude of different splices, applications, and lines. New England Ropes also has a channel on youtube that shows various splicing videos for further instruction.

New England Ropes selma fid kit consists of a 5 piece needle set and Instructions to do your own splices. Selma fids are made from highly polished stainless steel and are patented worldwide. Splice hollow braids to three-strand ropes to double braid lines all with selma fids.

Tow Fid



New England Ropes in collaboration with riggers and a leading manufacturer of precision machined parts designed a unique, patented new fid kit for use on all types of ropes. The patented design allows the daily user to easily push core material through with little resistance to snagging. The geometry and design have been adapted to minimize any friction while splicing. The set comes in a range of 5 fids, 5mm – 12mm. Each fid is a solid, machined piece of aluminum that is tumbled to a high finish. The New England Ropes Tow Fid is the ultimate tool for professionals splicing on a routine basis.

3-Strand Mooring Pendants



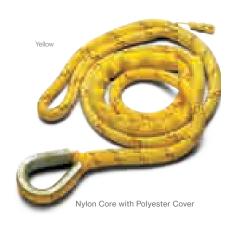
3-Strand High-Grade Marine NylonMarine Nylon

3-strand mooring pendants are manufactured from our Premium 3-Strand Nylon line. Each pendant has a factory-spliced heavy duty galvanized thimble on the buoy end and a 12" soft eye on the boat end. Optional Cordura® chafe sleeve may be applied to enhance abrasion resistance. New England Ropes recommends the use of a swivel placed at the buoy to help eliminate twisting of the rope which can cause hockels or the rope to fall out of lay.

Ø Diameter	16mm 5/8"	18mm 3/4"	25mm
Tensile	11,650	17,150	27,700
Weight	9.60	13.70	24.30

Additional sizes available upon request

Poly/Nylon Mooring Pendants



Poly/Nylon mooring pendants combine the strength and elasticity of nylon in the core with tough, durable abrasion resistant polyester in the cover. Poly/Nylon mooring pendants come standard with a thick yellow-tinted marine-tech coating that improves abrasion resistance and enhances visibility. Each pendant has a factory-spliced heavy duty galvanized thimble on the buoy end and a professionally spliced soft eye on the boat end. Poly/Nylon mooring pendants have a durable Cordura® chafe sleeve.

Ø Diameter	16mm	18mm	25mm
Tensile	15,000	20,900	35,340
Weight	11.10	15.90	30.50

Additional sizes available upon request

Cyclone Mooring Pendants



12 strand Dyneema® with Cordura® Chafe Sleeve

The ultimate in mooring pendants, made from out Endura 12 rope, Cyclone Mooring Pendants are comprised of Dyneema® fiber which has extremely high tensile strength and ultra low elongation. The Cyclone Mooring Pendant floats, has an excellent strength-to-size ratio, excellent wet/dry retention, is easily spliced, and has a marine-tech coating which improves abrasion resistance. The Cyclone Mooring Pendant is used in conjunction with a traditional mooring pendant making it the ultimate in storm pendants.

Ø Diameter	12mm	16mm	18mm	22mm	24mm
Tensile	34,300	58,000	69,000	97,500	115,900
Weight	5.90	9.10	13.20	18.30	20.40

Braided Luffline



Braided Polyester

Stiff, durable, and strong. 100% Braided polyester has internal market strands to indentify luffline by size.

Applications: lufflines, sailboard harness loops, and foredeck netting.

Ø Diameter	3mm	4mm	5mm	5.5mm	6mm	7mm 9/ ₃₂ "	8mm 5/16"	10mm	11mm 7/16"
Tensile	370	750	1,050	1,275	1,500	1,800	2,350	2,675	3,500
Weight	0.47	0.81	1.19	1.76	2.20	2.40	3.30	4.50	6.00

Shock Cord



is used in our shock cord, which makes it compact, stable, and durable. The outer cover is made of extremely abrasionresistant polyester.

Top quality rubber

Diameter	3mm	4mm	5mm	6mm	7mm	8mm	10mm
Tensile	63	126	135	148	198	250	373
Weight	0.40	0.90	1.10	1.70	2.50	3.00	5.40

T-100



Braided Polyester

Technora

Strong, low-stretch, durable cord. 100% Technora® fiber core and a braided polyester cover. Very low stretch.

Applications: light-air spinnaker sheets, tie-downs for windsurfers and dinghies, and leech lines.

Diamete		3mm	4mm	5mm	6mm	8mm 5/16"
Tensil	e 1,050	2,000	2,900	3,100	5,050	6,750
Weigh	t 0.35	0.60	0.93	1.23	1.90	3.20

Whipping Twine



Our waxed whipping twine is made of colored polylester and is particularly easy to handle and impresses users with the high quality of twisted PES twine.

Γ	Ø Diameter	0.5mm	0.8mm	1mm	1.5mm
	Meters	100	80	46	32

Braided Polyester Cord



Braided Polyester



Filament Polyester

Lightly braided polyester line. Ideal for general purpose use such as flag halyards and tiedowns.

Applications: Flag Halyards and tiedowns.

Ø Diameter	2mm	3mm	4mm	5mm
Tensile	450	580	790	1140
Weight	0.30	0.50	0.70	1.00

3-Strand Polypropylene



3-Strand Polypropylene

Lightweight floating rope for non-critical use: 3-strand polypropylene floats, has very little stretch, and is resistant to chemicals. Perfect for heaving lines, water-ski tow rope, life-ring lanyards, and quiots.

Ø Diameter	6mm	7mm	8mm	10mm 3/8"	11mm 7/16"	12mm	16mm	18mm
Tensile	1,060	1,680	2,250	3,900	4,650	5,700	8,200	11,400
Weight	0.70	1.20	2.10	3.00	3.90	4.60	7.30	9.90

LINE SELECTION GUIDE

New England Ropes makes line selection easy:

- **1. Choose your application** e.g. (Main Halyard)
- 2. Choose type of sailing e.g. (Cruiser)
- 3. Select your boat size e.g. (35 ft.)
- **4. Match color code** in recommended cell to product type on right. This will give you the best selection and diameter of line for given application.

To upgrade in any case, modify your selection in type of sailing category. In most cases, choosing a better performing line will substantially lower the

stretch and in most cases allow you to reduce diameter by 10-15%. The net result will be a line, which will have low stretch, is lightweight and will control sail shape more precisely.

1	APPLICATION	2	TYPE OF SAILING	3	BOAT SIZE IN FEET >	15	2	0	25					
		CR	UISING		8	mm			10mm					
	MAINSHEET	CLUB RACING GRAND PRIX RACING		CLUB RACING		CLUB RACING			8	mm			10mm	
					6mm		8mm							
		CRUISING		6mm			8mm							
	JIB SHEET	CLU	JB RACING		6mm		8n	ım						
		GR	AND PRIX RACING		6mm		8n	ım						
		CR	UISING			mm			8mm					
	SPIN SHEET	CLU	JB RACING		6	mm			8mm					
		GR	AND PRIX RACING		6	mm				8mm				
	LIGHT AIR		UISING			mm				6mm				
	SPIN SHEETS		JB RACING		6	mm				6mm				
		-	AND PRIX RACING					6mm						
	TD 1) /51 5D		UISING			mm				8mm				
	TRAVELLER		JB RACING			mm				8mm				
		_	AND PRIX RACING		6	mm				8mm				
	AFTER GUY		UISING	<u> </u>			Not App							
			JB RACING	<u> </u>			Not App							
		-	AND PRIX RACING				Not App							
	\/\A\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	-	UISING		6mm		8n	ım						
	VIAIN HALYARD		JB RACING		6	mm			8mm					
		-	AND PRIX RACING		Comm		6mm							
	JIB HALYARD	_	UISING		6mm		8n	ım						
			JB RACING				6mm							
		_	AND PRIX RACING	_	C	mm	6mm		0,000					
	SPIN HALYARD	_	UISING		0	111111	C		8mm					
		_	JB RACING				6mm							
		_	AND PRIX RACING		_	mm	6mm	6mm						
	SPINNAKER	_	UISING			mm mm		6mm	6mm					
	TOPPING LIFT	_	JB RACING AND PRIX RACING		5	1111/1	6mm		OIIIIII					
		_			_	mm	6mm	6mm						
	FORE GUY		UISING JB RACING			mm		OIIIII	6mm					
	FUNE GUY					mm			6mm					
		GR	AND PRIX RACING		5	mm			6mm					

REPLACE YOUR WIRE HALYARDS WITH ALL ROPE HALYARDS

Rope halyards are easier to handle and significantly lighter than wire halyards. Sta-Set X or VPC is an ideal replacement for wire halyards on cruising yachts. For race boats and large cruising yachts use V-100 or T-900.

WIRE HALYARD REPLACEMENT	GUIDE				
7 x 19 Wire Size	1/8"	5/32"	3/16"	7/32"	1/4"
Sta-Set X & VPC Replacement Size	5/16"	3/8"	7/16"	1/2"	9/16"
V-100 and T-900 Replacement Size	6mm	6mm	8mm	10mm	12mm





FIBER TYPES

Overview

Monofilaments

A few comparatively thick fibers (Ø 0.3mm) are fed in parallel to the braiding process.

- Multifilaments

Many very thin fibers (0.001mm) are used as a bundle during the braiding process. This is the most widely used kind of construction in yachting ropes.

Textured fibers

The fibers are not arranged in parallel in the bundle but exhibit a more or less random type of arrangement. This is why the fiber bundle has a comparatively rough surface.

Base materials in detail

Dyneema[®]

The starting material for Dyneema® is polyethylene. It is modified at a molecular level and stretched in one direction. The stretched molecule chains increase breaking strength and decrease elongation. Therefore, Dyneema® exhibits the lowest elongation at break of all synthetic fibers. Dyneema® has very low specific gravity, which makes it buoyant. The only downside of this fiber is that it creeps. This means that the fiber will show permanent elongation under load. Dyneema® is used as a core material in high tech yachting ropes. The core bears the load, while the cover merely serves as a protection against abrasion and light. Therefore, it is certainly possible to remove the cover from the rope ends without reducing the rope's breaking strength. Dyneema® also exhibits good abrasion resistance and resistance to sunlight. Dyneema® is the most widely used high tech fiber in yachting ropes and can be used for a vast variety of high quality products such as sheets, halyards, and trim lines.

- Liquid crystal polymer (LCP)

Liquid crystal polymers (LCP's) are extremely complex, modified polyester chains. Vectran® is a brand name of Hoechst Celanese in the U.S. Vectran® is very expensive. Therefore, it is used only in high tech cordage. This product stands for low stretch combined with ultimate breaking strength. However, its UV resistance is not very high. Furthermore, LPC's exhibit very high temperature resistance and low vulnerability to bending across sharp edges. The big advantage of Vectran®, however, is the absence of creep. Vectran® is an absolute high tech fiber mainly designed for competition. Its low UV resistance makes using a cover indispensable, which must not be removed, not even for weight reduction purposes.

Polybenzoxazole, Crystal Polymer (PBO)

PBO is a high tech fiber. Produced by Toyobo in Japan, it combines extreme breaking strength, high temperature resistance, and very low elongation. Its weakness, however, is its low resistance to sunlight.

Aramid/Technora®

Aramid fibers provide extremely high breaking strength combined with almost no elongation. They are sensitive to sunlight, bending across sharp edges, and abrasion. In yachting ropes, aramid only plays a minor role. This fiber is produced by DuPont (Kevlar*) and Teijin (Twaron*). In the Yachting Rope segment, aramid fibers are mainly used in places where high temperature resistance is essential, for example on winches. They are ideally suited for use on winches. However, due to their low resistance to bending over sharp edges, they should not be used on stoppers.

Polyester (PET)

PET stands for good breaking strength and low elongation. It offers both chemical and physical benefits such as resistance to seawater, good abrasion resistance (in both dry and wet conditions), and good resistance to sunlight. This makes PET a go-to choice in the production of many yachting lines. It is used as a core material for halyards, sheets, mooring lines, and anchor lines. On high tech cordage, polyester is used as the cover material. The outstanding characteristics of polyester speak for themselves. Since polyester sinks, it can also be used for anchor lines. For high tech yachting ropes, it is used as a cover material (UV protection), while for simple yachting ropes it is also used in the core.

Polyamide (PA)

Polyamide provides high breaking strength as well as high elongation. The abrasion resistance of PA is better in wet than in dry conditions, as the fiber tends to absorb water (up to 7%). Kept in contact with moisture for too long, the material can become stiff. Another downside of PA compared to polyester is its comparatively lower UV resistance. This is why PA is increasingly being replaced by polyester. Polyamide is still widely used for mooring ropes and allround lines.

– Polypropylene (PP) = XLF

Due to its limited technical properties, polypropylene is only used for simple applications. PP is extremely lightweight and even buoyant. Its abrasion strength and temperature resistance are adequate. Typically, it is used for simple mooring lines or for allround lines.

Overview of products

Rope	Starting material	Strength	Specific gravity	Water absorption	Resistance to sunlight	Elongation	Abrasion resistance	Creep	Melting point
	mm	daN/mm²	kg/cm ³	%		%			C°
Dyneema®/ Spectra®	VHMPE	345	0.97	0	good	3.5	very good	at high loads	140
Liquid crystal polymer	LCP	280	1.41	0	poor	3.5	good	not measur- able	330
PB0	PB0	574	1.54	0.5 – 2.0	low	2.5 - 3.5	very good	nearly not measurable	-
Aramid/ Technora®	Aramid	250	1.45	3.0	poor	3.5	very good	nearly not measurable	450
Polyester (PET)	PET	110	1.4	0.5	very good	10 – 16	very good	nearly not measurable	250
Polyamide (PA)	PA6/PA66	81	1.14	3.0	average	20 – 25	very good	low. good	250
Polypropylene (PP) = XLF	XLF Multi- filament	56	0.91	0	good	20 – 25	sufficient	at high loads	160

To the max!

Those who promise the best, must be ready for it: with every fiber!

ROPE CARE

In order to prolong the service life of your ropes, we recommend that you observe the following instructions:

- Storage

Always keep the ropes in a clean and dry place. Avoid exposing them to direct sunlight and extreme temperatures. Do not drag ropes over rough surfaces or dirty grounds, as dirt can penetrate between the fibers and cause abrasion damage. Always keep ropes away from chemicals.

If you plan to keep the ropes in storage for extended periods of time, wash them first in fresh water. Salt and dirt will reduce a rope's life span.

- Coiling up of ropes

3-strand ropes of any type could be damaged if they are taken off a coil the wrong way. Always keep this in mind and avoid kinks that would open up the 3 strands and compromise the integrity of the rope.

Braided ropes may get twisted by incorrect handling. The ideal method to coil up a braided rope is in the form of a figure 8. This avoids putting twist in the rope and will ensure its optimal running behavior when using it again. When using a reel with a braided rope, make sure that it runs freely on a central axle. This helps avoid twists and kinks in the rope.

- Sheaves, blocks

Ropes used around sheaves will experience a reduction in strength and lifetime. We suggest that you use a sheave diameter which is approx. 8-9 times the rope diameter.

The use of V-profile sheaves should be avoided as they compress the rope and cause local friction thus shortening the rope's lifetime.

Winches

The requirements for ropes used on winches differ from those for ropes only used on cleats. It is important to understand that some cover constructions are not designed to be used on abrasive winch drums, as they would degrade rapidly.

Chemicals

Exposure to chemicals may cause synthetic fiber ropes to deteriorate or be damaged. This may lead to a considerable loss in strength of a rope. Impregnating a rope with unauthorized products may alter the properties of the treated rope.

Therefore, we recommend to refrain from using any solvents or other conventional cleaning products. If in doubt, please contact your FSE Robline® dealer.

Hear

Exposure to temperatures above 40° C may change the properties of a rope temporarily or even permanently. In some cases, such changes can be positive, e.g., changes brought about by pre-stretching or heat-setting processes. Nevertheless, in most cases high temperatures lead to adverse consequences that reduce the strength of the rope. Be sure to avoid any exposure to punctual heat sources.

- Heat generated by friction

When using a rope on a winch, it may happen that friction-induced heat causes fibers of the rope to melt.

This can compromise the rope's performance. Some ropes are specifically designed to withstand extensive friction and the heat generated by it – your dealer will be happy to assist you in finding the right product for your specific application.

UV rays

Ultraviolet rays may affect the quality and lifetime of synthetic fiber ropes. Hence, it is imperative to limit the exposure of ropes to sunlight to a minimum, if possible.

Ropes with smaller diameters are affected more severely than larger diameter ropes.

Abrasion

Contact with abrasive surfaces or sharp edges will generally lead to damage on the rope. Therefore, be sure to avoid having ropes run across any type of non-movable surfaces, unless they were designed for this purpose (e.g. rings).

It is also important to avoid any situations where ropes will come into contact with sand, dirt, and other abrasive particles. The damage caused by this in a rope's interior may not be visible from the outside. However, it may significantly reduce the rope's strength.

