



CONTENTS FSE ROBLINE® INFORMATION

Information about product specifications

Product nomenclature







Ø = diameter (mm)

The nominal diameter is always the maximum diameter

length = rope length (m)

The rope's length is measured taking EN ISO 2307 into account. rope length: per spool or coil

	Length	MBL	Weight	Color/Item	no.			
n	m	daN	g/m	gray-red	green-neon green-gray	black-purple- anthracite	black-gray- anthracite	blue-gray- anthracite
	200	2,200	25	0713	3405	3410	3415	3614
					annanan	****	******	*****

MBL = minimum breaking loads

in testing in our laboratory. In practical use, these from the specified weight. values may deviate depending on the type of use. The breaking loads were determined for free
Colors and order numbers lengths of rope and will be decreased by splices

Example: the color "blue-gray-anthracite" with or knots. When defining a rope's dimensions, we Ø 6 has the Item no. 3614 recommend to apply a ratio of working load to breaking load of at least 1:5!

weight = weight per meter (g/m)

The value in daN (1 daN is about 1 kg) indicates The specified values in grams relate to one meter the load at which the rope would break. The of rope. The length of the rope can change during specified breaking loads are values determined use. As a result, there may also be deviations

Identification Field of Use



This line is ideally suited for use as a



Due to its low abrasion and minimal kink, this line is ideally suited for use as a sheet.

CROSSOVER

Over This line is suited for use as both a halyard and a sheet.



This line can be used as a control line, stretcher, or allround rope.

MOORING LINE

Dock Line Fortsjining This line is suited for mooring all kinds of boats.

ANCHOR LINE

This non-buoyant line is used for [→] anchoring.

Halyards and sheets*

Mooring and anchor lines*

Your boat	_	halyards	Main		sheets	Main	Your boat	weight	Ø mooring line	Ø anchor line
¹ m	^I Spi	¹¹ Genoa	IIVIairi	¹ Spi	Genoa		^l m	' '[mm	¹ mm
6-8	8	8	8	10	10	10	6-8	2	8-10	12
9	8	10	10	10	12	10	9	4	12	14
10	10	10	10	10	14	12	10	5	12	16
11	10	12	10	12	14	12	11	7	14	16
12	12	12	12	12	14	12	12	8	14	18
14	12	12	12	14	14	12	14	11	16	20
16	12	14	12	14	14	14	16	12	18	20
18	14	14	14	14	14	14	18	20	24	24
24	16	16	16	16	16	16	24	22	26	26

*When using lines made of Dyneema®, the diameter can be reduced by 2 mm! The specified values are experience-based values of FSE Robline®. They are average values which, however, can vary from one yacht type to another.

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 Ocean 3000 XG for example) a splice is the only option that should be used, as knots can come undone under a load.

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DEAR SAILINGENTHUSIASTS,

well-known international pro sailors have been collaborating with the experts of FSE Robline®, and, together, we have succeeded in maintaining our leading role in sailing and yachting cordage. Year after year. We are particularly proud of having been chosen to supply many participants at the upcoming Olympic Games in Rio 2016 with our equipment. Sailing crews from Austria, Kuwait, Qatar, Croatia, Brazil etc. rely on the expertise and the cordage of FSE Robline®.

This catalog brings to you the results of our intensive cooperation with various sailing industry experts and introduces our latest innovations, trends and developments as regards materials, cordage, and sailing accessories.

Tapered lines continue to gain in importance. Now, customers no longer need to cope with the laborious process of making this type of rope themselves. The product range for "Tapered Sheets" of FSE Robline® has been upgraded to also include such special lines, and in exceptional quality

Even cruising sailors, who just enjoy sailing without the stress of a competition, have high expectations when it comes to the quality of their ropes. Our newly developed, accessible Sirius 1000 lines with Dyneema® close the gap between Performance ropes and Cruising-oriented lines. With them, users do not have to do without the characteristics of a high quality Performance line.

Yet, cordage from FSE Robline® is not only used at the Olympic Games. We are also the official supplier of lines for the most active high performance sailing classes. In the RC 44, GC32, and TP 52 classes, the world's best regatta sailors challenge and support us in the development of ropes that perform to the max in any situation. This catalog introduces to you several pro sailors who compete in these classes. They tell you about their successes in sailing and provide valuable pieces of advice.

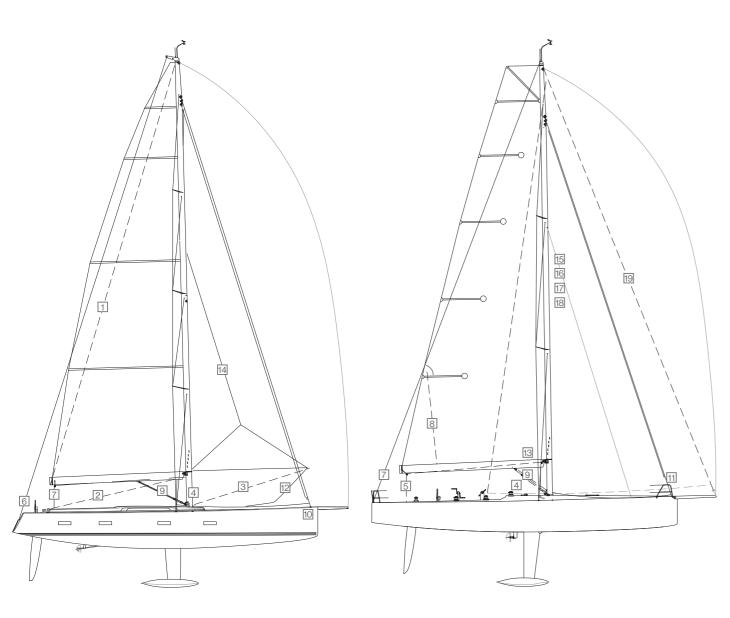
We look forward to many interesting discussions and the lively exchange of ideas and information with a great number of sailing enthusiasts. Furthermore, we assure you that, whatever challenges you intend to confront, we will be happy to accompany you on your quest.

Your FSE Robline® Team

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ROPE RECOMMENDATIONS ROPE RECOMMENDATIONS /



Typical fields of use A Racing

B Regatta

C Cruising

Dinghy & Sportsboats

E Mooring & Anchor Lines

F Sailmakers

Product groups

■ Custom-made/Racing

Performance

Cruising

Dinghy & Sportsboats

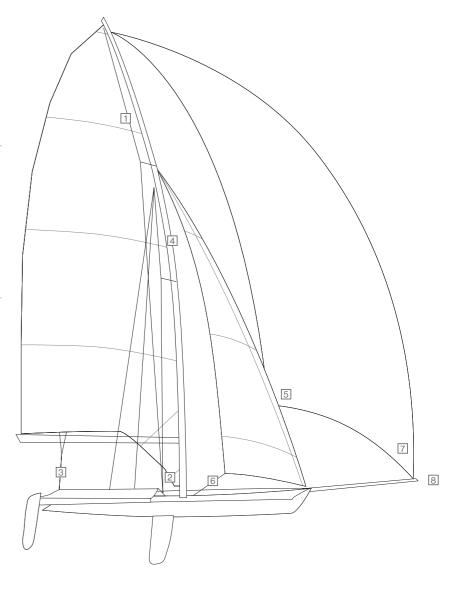
Mooring & Anchor Lines

Ready-made Products

Allround Ropes Sailmakers

Traditional Ropes

Accessories



1 Boom lift

A Custom-made

B Admiral 3000 Sirius 500/300/1000

C Orion 500/300

Neptun 500

2 Spi gennaker sheet

A Custom-made

A Globe 5000 MK2 B Admiral 5000

B Admiral 3000 B Coppa 3000

C Orion 500/300 C Sirius 500/300

3 Spi guys

A Custom-made

B Globe 5000 MK2 B Admiral 5000

B Admiral 7000

C Sirius 500/1000

4 Jib/Genoa sheet

A Custom-made A Admiral 3000

B Coppa 3000

B Globe 5000 MK2

B Admiral 5000

C Orion 500/300

C Neptun 500

5 Backstays/Runner

A Custom-made

A Ocean 3000 XG/ 5000/7000 B Admiral 7000

B Globe 5000 MK2

B Admiral 5000

6 Mooring lines

Monte Carlo XG
Rio

E Rapallo E Cormoran

E Extension Mooring E Miami

E Portofino E Riva.Flex

7 Main sheet

A Custom-made A Globe 5000 MK2

B Admiral 5000 B Admiral 3000

B Coppa 3000

C Sirius 500/300/1000 C Neptun 500

8 Reefing lines

A Custom-made B Admiral 7000

B Globe 5000 MK2 B Admiral 5000

C Sirius 500/1000 Orion 500/300

9 Boom vang

A Custom-made B Admiral 5000/7000 B Globe 5000 MK2

B Admiral 3000 B Ocean 3000 XG/ 5000/7000

C Sirius 500/300

10 Anchor line

Monte Carlo XG

E Rio **E** Rapallo E Bonifacio Winch

E Riva.Flex

11 Furling line

A Custom-made B Admiral 7000

B Globe 5000 MK2 B Ocean 3000 XG/5000 B Dinghy Star C Sirius 500/300/1000

A Custom-made B Ocean 3000 XG/5000

B Globe 5000 MK2

12 Spi boom downhaul

B Admiral 5000/7000 C Sirius 500/300/1000 C Orion 500/300

13 Cunningham

A Custom-made B Admiral 7000/5000 B Dinghy Star B Globe 5000 MK2

Sirius 500 C Orion 500/300

14 Spi pole uphaul

A Custom-made B Admiral 3000/ 5000/7000

B Globe 5000 MK2 C Sirius 500/300/1000 C Orion 500/300

15 Jib/Genoa halyard

A Custom-made B Admiral 7000

B Globe 5000 MK2 B Admiral 5000 C Sirius 500/300/1000 C Orion 500/300

16 Spi gennaker halyard

A Custom-made

B Admiral 5000/3000

C Orion 500/300

17 Code zero halyard

Admiral 7000

B Admiral 5000

B Ocean 3000 XG/ 5000/7000

B Admiral 7000 B Admiral 5000

C Orion 500/300

B Globe 5000 MK2

C Sirius 500/300/1000

A Custom-made

B Globe 5000 MK2

18 Main halyard

A Custom-made

B Globe 5000 MK2

C Sirius 500/300/1000

19 Gennaker furling line

F GFL Ultra

1 Main and gennaker halvards

Tapered Sheet

Dinghy Polytech Dinghy Star

Dinghy Star Pro Dinghy Control D Ocean 7000

Ocean 3000 XG 2 Boom downhaul

Dinghy Polytech 8 Plaited Dinghy

Dinghy Control D Ocean 7000 D Ocean 3000 XG

3 Main sheet

D Tapered Sheet Dinghy Coppa

D Coppa 3000 Dinghy Sheet

Dinghy Light Super Dinghy Sheet

4 Jib halyard

Dinghy Polytech

Dinghy Star Dinghy Star Pro

Dinghy Control Ocean 7000

Ocean 3000 XG Ocean 5000

5 Gennaker sheet

Tapered Sheet Dinghy Sheet

Dinghy Light D Coppa 3000

6 Jib sheet

Tapered Sheet Dinghy Polytech Dinghy Coppa

Dinghy Sheet Dinghy Light D Coppa 500

D Tapered Sheet

7 Tack line

Dinghy Polytech Dinghy Control

Dinghy Star Dinghy Star Pro D Coppa 3000

8 Bow line Albatros

Grand Prix Racing TP 52 Class

The TP 52 class is the formula 1 of ocean-going race yachts. The boats of this class must meet specific predefined dimensions. For example, they must not be longer than 15.85 m and feature a width between 3.95 and 4.4 m. The maximum weight of the 14-person crew must not exceed 1,273 kg. The regattas of the TP 52 class are said to be especially attractive. Most of their venues are in America and Europe. In 2014/2015, a complete range of FSE Robline® brand ropes was developed for the entire running rigging used in racing by TP 52 class boats. For half a year, the specialists behind FSE Robline worked together with pro sailors in order to provide ropes that meet the latter's every need and expectation. For a TP 52 class boat, about 40 different ropes of diameters from 3 to 11mm are required.



An interview with PIETRO MANTOVANI

Pietro Mantovani sets the sails for the Italian Gazprom Racing Team and is regarded as one of Italy's most experienced and successful sailors. In the following interview, he tells us what his greatest challenges in life are and how he prepares for his races.

a part of my life since my childhood. More precisely, I relaxation drills are most important to clear my mind. have been in sailing for 24 years. I became a pro sailor Because I am always pretty nervous before the start. at the age of 21.

the most successful. Has there been any personal children in growing up. highlight in your career so far? Yes, in fact, I am looking back on many very satisfying years as a sailor. How does your family feel about your job as as pro-This doesn't make it easy for me to single out one fessional sailor? My family supports me 100 percent achievement as the most important one. It may have in what I am doing. I am really lucky, and this is one of been my participations at the America's Cup 2003 the reasons for my success. I owe a lot to my wife who and 2007 as a part of the Italian team. Yet, also my is doing an awesome job of taking care of our family two victories in the Congressional Cup 2010 and 2013 when I am not at home. meant a lot to me, just like triumphing at the Worlds in 2014 in the RC44 class.

This makes us curious as to what a day in the life that I worked hard to gain through my successes. of such a successful sportsman looks like. In a nutshell, I start off my day with a run in the morning and a Pietro, thank you very much for this interview. substantial breakfast. Then it's off to my boat. I check all the systems and discuss with my shore crew what we could do to make the boat faster yet. After all, our objective is to always deliver top performances. And this is why my expectations regarding my equipment are extremely high.

Pietro, when did you start sailing? Sailing has been How do you prepare for a race? For me, personally,

Is it true that sports is where you find your greatest This explains why you are regarded as one of the challenges in life? Not necessarily. The greatest and most experienced sailors. But you are also one of best challenge in my life has been to accompany my

Last question: What are you particularly proud of? I would say the respect within the sailing community



»My expectations regarding the equipment are extremely high. Naturally, this also applies to my cordage. As far as I am concerned, FSE Robline® ropes are undoubtedly the best choice, especially because of their high abrasion strength and their great ease of handling. And, of course, because they are easy to process.«

Pietro Mantovani, Pitman/Rigger Gazprom Racing-Team, Italy

CUSTOM-MADES AND HIGH PERFORMANCE "TAPERED SHEETS"

In the development of new products, FSE Robline® continues to maintain close contact with regatta sailors who compete in the most challenging races. The results of our close cooperation with racing teams in the RC44, TP52, GC32, Extreme 40, M32 and Maxi classes clearly document our successful commitment to the racing segment.

Custom-mades

Customers who have special needs for their specific sailing project are contact with our racing department and provide you with the best adgiven the chance to select from a variety of high-tech rope designs so vice possible. We have individually configurable rope designs that can as to obtain the best possible product for their individual needs. Please be provided with terminations and dimensioned to meet your specific contact your competent country representative who will get you into requirements.

Available cover materials (can be mixed):

Available core materials:

- STS Ocean 5000
- SK78 Ocean 3000 XG
- SK99 Ocean 7000
- DM20 Ocean Stat20

 Technora - Aramid

Polyester

High Performance Tapered Sheets

Our new range of High Performance Tapered Sheets gives our customers Machine-tapered sheets can bridge differences in diameter of up to partners. This means that you can put together your custom-configured for core and cover. product from the specified core and cover materials. This allows you to adapt your cordage to the specific requirements of your yacht, define your Contact your FSE partner (see list of distributors on page 59) to obtain individual colors and diameters, and, where necessary, make a change information regarding prices and prospective delivery times. Usually, to the diameter - a taper.

In the Grand Prix regatta classes, but also in the Olympic classes and the Sportsboats classes, machine-tapered sheets are enjoying increasing popularity in order to achieve an even greater advantage in terms of wind resistance and friction in the block cascades.

access to the same technology that is used in racing by our development 5mm. Thus, there are almost no limitations to your choice of materials

delivery turnaround is a few weeks. The prices are determined on a case to case basis, depending on the diameter and the materials used.

Using our machine-tapered ropes provides significant advantages:

- ✔ Professional machine-tapering with even transitions
- ✔ Reduced weight and wind resistance of cordage
- Strong where it matters
- Improved handling

- ✓ Smaller line diameters generate less friction in the blocks/halyard sheaves, minimizing the required physical effort
- ✓ Less rope chaos on board



High Performance for High Performer

Cutting edge racing lines, made of premium quality fibers, top raw materials, and based on a wealth of racing experience



Required specifications for ordering

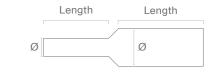
Specifications in mm:

- ✓ diameter thick ropes Ø
- ✓ length thick ropes
- ✓ diameter thin ropes Ø
- ✓ length thin ropes
- ✓ color

Available diameters (mm):

		-
- 3 on 5	4 on 10	6 on 8
- 3 on 6	5 on 8	6 on 9
- 4 on 6	5 on 9	6 on 10
- 4 on 8	5 on 10	6 on 12
- 4 on 9	5 on 12	8 on 12





Available core materials:

- STS Ocean 5000
- SK78 Ocean 3000 XG
- SK99 Ocean 7000
- DM20 Ocean STAT20

Available cover materials (can be mixed):

- Polyester
- Polyester Soft
- Technora®
- PBO

These benefits might just make the difference for you to claim victory!



Performance

Modern performance cruising yachts shine through elegance and excellent sailing characteristics. However, those characteristics become available only if the cordage used also lives up to the high demands. For, only then will it be possible to ensure good yacht speeds and great ease of handling. A typical 50-feet performance cruising yacht needs 11 ropes with diameters from 8 to 14mm and lengths between 5 and 40m. The cordage for a typical C/R yacht must permit laid-back cruising, on the one hand, while also catering to sporty, race-like of this target group in mind.



An interview with CHRISTIAN BINDER

Christian Binder has been one of the most well-known pro sailors in Austria for quite some time now. Apart from having taken part twice at Olympic Summer Games, he is also a European Champion in the Soling class and has 20 Austrian championship titles to his name. In this interview, he tells us about the most dangerous situations of his career and about his biggest successes.

am not mistaken, my first time was at the age of 12. nently important for the exact trim.

Plenty of time to celebrate victories. What were your What was the most dangerous or challenging situation

Now an equipment question: How long have you been working with FSE Robline® ropes? The answer to this
This brings us to the next question: What are you is short and easy: Ever since FSE Robline® exists. The particularly proud of? Probably that I am still able to quality of their ropes impressed me from their very keep up very well with my competitors. beginnings. Obviously, if that's the case, you don't really want to change.

denominators. Mainly, however, that in both cases it minor details. is small things that make a difference. They decide whether you win or lose.



Christian, you are one of the established names in In which way does the cordage used influence one's the sailing community, not only in Austria. When was choice of sail? The cordage doesn't necessarily have your first boarding? Well, it's been quite a while. If I an influence on one's choice of sail. Rather, it is emi-

biggest successes? Competing at the Olympics twice you had to master in your sailing career? Actually, definitely belongs to the greatest highlights of my sailing the only dangerous moments I ever faced all happened career. And winning the European Championships in in the early days of my sailing career due to a lack of the Soling class can be mentioned in the same breath. experience and routine. The greatest challenge was definitely sailing in the RC44 class.

What general piece of advice would you like to share with sailors? Well, most of them know anyhow what In fact, you are not only a sailor, but also a sail maker. is important in sailing. Maybe, one important piece Is there anything that is important for both pro- of advice would be that in sailing one should always fessions? Actually, there are quite a few common look at the whole picture and not get sidetracked by

Christian, thank you very much for this interview.

» For modern performance cruisers and racers, the cordage needs to master a balancing act that is quite challenging. In racing situations, it must live up to extreme high performance requirements. In recreational sailing, however, ensuring great ease of handling figures as the main priority. And all that for a good price/ performance ratio. Come to think of it, it is incredible that there actually exists cordage that meets all these requirements. Thank you, FSE Robline[®]! «

Christian Binder, a former pro sailor/and now a sail maker, Austria

/ PERFORMANCE

ROPE PERFORMANCE INDICATOR

Performance

The values shown in the performance indicator are intended for orientation purposes. They should assist customers in finding the most suitable product for a certain application. Please bear in mind that these are relative values meant to point out the product-specific differences within a performance category. Thus, a higher value, for example, means that the relevant rope delivers the highest performance in this parameter as compared to the rest of the product family.

Comparison of the performance criteria of Performance ropes



Admiral 10000







Polyester/Technora® 24 Dynee

Ø	Length	MBL	Weight	Color/Item no.		
mm	m	daN	g/m	gray-blue	gray-neon green	gray-neon orange
8	200	3,930	65	0285	0286	0287
10	200	5,830	80	0288	0289	0290
12	200	9,650	98	0248	0283	0284

Grand-prix-tested racing lines with Technora®/polyester cover for best abrasion resistance, easy to splice.

Admiral 7000







ster 32 Dyneema® SK78

Ø	Length	MBL	Weight	Color/I	tem no.					
mm	m	daN	g/m	white-red	white-navy	white- green	black-neon yellow	black-white	black	silver
6	200	2,300	25	3518	3521	3519	0693	0688	3517	3520
8	200	3,900	42	3523	3524	3525	0694	0689	3522	3526
10	200	5,850	65	3528	3529	3530	0695	0690	3527	3531
12	150	8,100	89	3532	3533	3534	0696	0691	3536	3535
14	100	10,500	120	3537	3538	3539	0697	0692	3541	3540
				-	-		married bear			

3337 3338 3339 0097 0092 3341 3340

Ideally suited for use as a halyard and for applications involving extremely high loads, Dyneema® SK78 core with tight 32-plait cover for optimized stability and elongation values.

Admiral 5000







lyester 24 Dyneema® SK78

Ø	Length	MBL	Weight	Color/Item	i no.			
mm	m	daN	g/m	gray-red	green-neon green-gray	black-purple- anthracite	black-gray- anthracite	blue-gray- anthracite
6	200	2,200	25	0713	3405	3410	3415	3614
8	200	3,800	43	0714	3406	3411	3416	3615
10	200	5,800	62	0715	3407	3412	3417	3616
12	150	8,000	90	0716	3408	3413	3418	3617
14	100	10,500	124	0717	3409	3414	3419	3618

Featuring a 24-plait cover in combination with a strong Dyneema® SK78 core, this rope is easy to splice and taper, while offering optimal breaking load values at the same time.

Admiral 3000







Polyester/Polyamide 32

Dyneema® SK78/XLF

Ø	Length	MBL	Weight	Color/Item no.		
mm	m	daN	g/m	red-anthracite	black-anthracite	silver-anthracite
6	200	1,600	23	3420	3426	3432
8	200	2,800	42	3421	3427	3433
10	200	4,200	60	3422	3428	3434
12	150	5,700	90	3423	3429	3435
14	100	7,400	120	3424	3430	3436
16	100	9,200	160	3425	3431	3437

Its modern cover construction makes this line ideal for use as a sheet on yachts of all sizes.

Globe 5000 MK2



Polyester 24



A completely revamped allround product for performance oriented sailors; Dyneema® in its core ensures high breaking strength and minimal elongation.

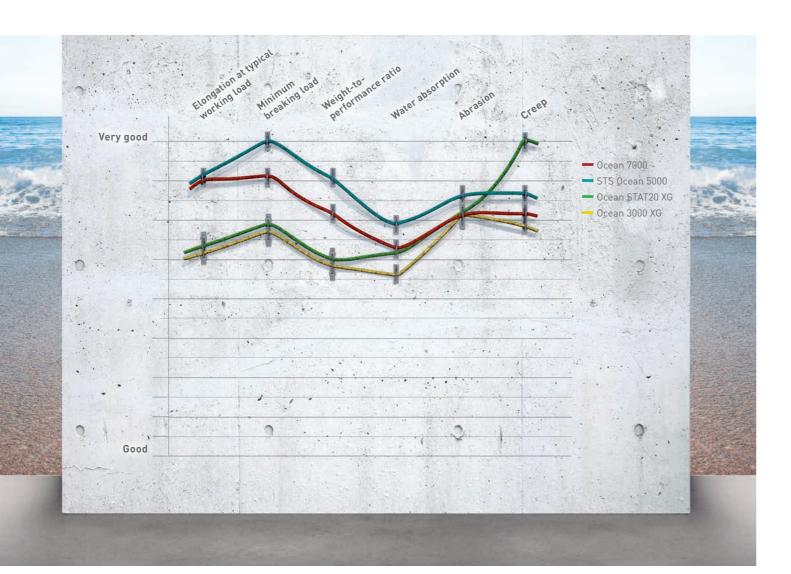


ROPE PERFORMANCE INDICATOR

Performance

The values shown in the performance indicator are intended for orientation purposes. They should assist customers in finding the most suitable product for a certain application. Please bear in mind that these are relative values meant to point out the product-specific differences within a performance category. Thus, a higher value, for example, means that the relevant rope delivers the highest performance in this parameter as compared to the rest of the product family.

Comparison of the performance criteria of Performance ropes



Ocean 7000











Ø	Length	MBL	Weight	Color/Item no.
m	m m	daN	g/m	anthracite
2	200	600	2.7	2853
3	200	1,200	5.5	2854
4	200	2,000	9.6	2855
5	200	2,900	13.9	2856
6	200	4,000	21.4	2857

This line is made of Dyneema® SK99 high performance fibers and ideally suited for all applications involving high breaking loads and, at the same time, for all uses that require a product that is easy to splice. Its typical field of use is where an enhancement of the properties of Ocean 3000 XG is needed.











STS Ocean 5000



Ø	Length	MBL	Weight	Color/Item no.
mm	l _m	daN	g/m	anthracite
3	*	2,310	9	3727
5	*	4,400	19	3728
7	*	7,700	36	3729
8	*	9,900	49	2800
10	*	12,300	64	2801
12	*	18,700	100	2802
14	*	22,000	116	2803

*Length on request



FSE Robline® employs STS - Stronger than Steel® cores for high performance applications, e.g., for cores of backstays and halyards used on race yachts such as TP52 and Mini Maxi.

Developed by the experts at FSE Robline®, the special heat stretch process, which includes a defined cooldown phase during which the

rope's structure is defined, makes it possible to achieve an enormous increase in breaking strength coupled with minimal elongation. STS Ocean 5000 should be used wherever extreme demands need to be met.

Ocean STAT20 XG



Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	black
3	100	800	5	0477
4	100	1,600	8	0478
5	100	2,300	11	0479
6	100	3,200	17	0480
8	100	4,500	28	0481
10	100	7,100	42	0476

This Dyneema® high tech fiber is the first HMPE with "zero creep". This makes this fiber and products made of it so ideal for all applications

where a defined length is to be maintained under constant loading. The coating was optimized especially with maximum UV protection in mind.

Ocean 3000 XG



Dyneema® SK78 12

Ø	Length	MBL	Weight	Color/Item no.		
mm	m	daN	g/m	red	blue	anthracite
2	200	400	2	3303	3304	3306
2,5	200	500	4	3307	3308	3310
3	200	800	5	3311	3312	3314
4	200	1,600	8	3315	3316	3318
5	200	2,300	11	3319	3320	3322
6	200	3,200	17	3323	3324	3326
8	200	4,500	28	3327	3328	3330
10*	150	7,100	42	3331	3332	3334
12*	100	9,500	54	3335	3336	3338
					NATIONAL PROPERTY AND PROPERTY	

Dyneema® SK78 is a high performance fiber which many sailing applications build on.

The upgraded coating ensures good UV stability and enhances abrasion resistance.

Cruising

in terms of both appearance and performance. Both classic oldtimers and modern classics require special cordage for their unique requirements. Long distance sailors in turn are looking for relatively long-living solutions. FSE Robline cordage can be fitted on square-rigged



An interview with MARTIN BREINER

Martin Breiner is not only a successful entrepreneur and marketing expert but also a passionate amateur sailor. Since his childhood he has sailed on various types of yacht, sometimes also in regatta races, and on one of the most successful classic yachts in the Caribbean.

Martin, it's been a while since you started to sail. What is the fascination of sailing for you personally? When exactly did you start? Well, you said it, it's It gives me the chance to seek new vistas every day been a while - about 45 years to be precise. I am from and, to me, this is what freedom is all about. Bregenz originally, and, like many other sailors, I gained

from Denmark with fantastic sailing performance.

When you sail in regatta races, which boat do you Does your family share your passion for sailing? Yes, the ANTIGUA Classic regatta, we claimed the victory enthusiastic about sailing. in our race category, and in 2015 we even won every single one of the races.

Which lines do you use on your Impala? We are very happy with the new halyards. In view of the minimal Thank you, Martin, for this interview. elongation, the sails are in a much better position and it is easier to achieve a precise trim.

You mean, apart from my crew? Well, most of all a You own a cruising yacht, which one? Only recently, cheerful atmosphere, and full focus when I sail in a I purchased a used IMPALA 48, a small-series yacht regatta. And, last but not least, quality cordage from FSE Robline®!

use? I count myself lucky to have been invited for because otherwise I wouldn't be able to leave port quite some time now to sail on the "MARY ROSE", a feeling happy and at peace with myself. My youngest Herreshoff 65 made in 1926. In the last two editions of son just finished his first OPTI course and is now also

> Do you ever get seasick? No, fortunately I haven't this hasn't happened to me yet.



» When sailing, what matters most to me is to enjoy it and have fun. This is why having comfortable, easy-to-handle ropes is so important to me. At FSE Robline®, halyards exhibit only minimal elongation, which is why they hardly ever need to be readjusted.«

Martin Breiner, a passionate amateur sailor from Austria

Sirius 1000

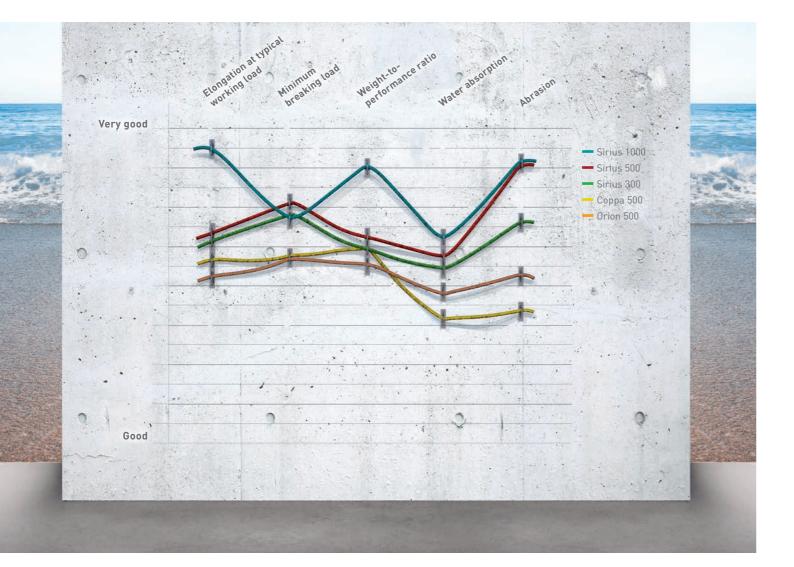






The values shown in the performance indicator are intended for orientation purposes. They should assist customers in finding the most suitable product for a certain application. Please bear in mind that these are relative values meant to point out the product-specific differences within a performance category. Thus, a higher value, for example, means that the relevant rope delivers the highest performance in this parameter as compared to the rest of the product family.

Comparison of the performance criteria of Cruising ropes



Ø	Length	MBL	Weight	Color/Item no).		
mm	m	daN	g/m	red	navy	green	black
8	200	1,500	35	0528	0527	0526	0525
10	200	2,400	67	0532	0531	0530	0529
12	150	3,100	73	0524	0523	0522	0521

This latest development of FSE Robline® closes the performance gap between the High Tech Performance and the previous Cruising products. Sirius 1000 combines several advantages of the Performance range products with a price/performance ratio known only from polyester products. Furthermore, it achieves optimal elongation values at the typical working loads that ropes are exposed to on Performance Cruising yachts.

Sirius 500



Ø	Length	MBL	Weight	Color/Item no.			
mm	m l	daN	g/m	silver-red	silver-blue	silver-green	silver-black
4	200	550	12	3438	3445	3452	3459
5	200	850	20	3439	3446	3453	3460
6	200	1,150	27	3440	3447	3454	3461
8	200	1,800	49	3441	3448	3455	3462
10	200	2,800	71	3442	3449	3456	3463
12	150	3,800	103	3443	3450	3457	3464
14	100	5,000	140	3444	3451	3458	3465







The classic from FSE Robline® featuring the optimal characteristics of a double braided polyester rope - low elongation coupled with high stability.

Sirius 300



Polyeste

Ø	Length	MBL	Weight	Color/Item no.		
mm	m	daN	g/m	white-red	white-navy	white-green
4	200	550	12	0579	0582	0581
5	200	850	20	0589	0591	0590
6	200	1,150	27	0597	0599	0598
8	200	1,800	49	0617	0619	0618
10	200	2,800	71	0633	0636	0634
12	150	3,800	103	0655	0658	0656
14	100	5,000	140	0580	0583	0584
				**************************************	****	***

The versatile allround sheet, ideal for use as a halyard, sheet, or trim line, excellent value for money.

Coppa 500



Polyester soft/Polyester 16

Ø	Length	MBL	Weight	Color/Item no.		
mm	m	daN	g/m	black-red	black-navy	black-yellow
8	200	1,100	35	0190	0191	0192
10	200	1,900	65	0193	0194	0195
12	150	2,700	102	0196	0198	0199
14	100	3,600	118	0205	0207	0208

The very soft cover and a strong polyester core make up an ideal sheet for manual maneuvering tasks on yachts featuring sheet systems with or without smooth-surfaced winches.





Orion 500





Polyester 16

Polyester













A line in modern, fresh colors and many diameters, easy to splice, and suited for various uses aboard any yacht.

Orion 300



Ø	Length	MBL	Weight	Color/Item no.						
mm	m	daN	g/m	white-red	white-blue	white-green	white	white-yellow	white-black	
4	200	400	12	1033	8993	1242	1772	2907	2909	
5	200	600	19	1243	8994	1244	1773	2908	2910	
6	200	800	24	1246	8995	1248	1774	8086	8087	
8	200	1,400	42	1038	8996	1253	1775	8088	8089	
10	200	2,000	70	1262	8997	1264	1776	8090	8091	
12	150	2,500	89	1897	8998	8892	1889	8092	8093	
14	100	3,800	120	1900	8999	8893	1890	-	-	
				200	2000	000	22224	000	000	







A versatile allround rope in a traditional design; high UV resistance, longevity, and great ease of handling make this product a benchmark for many Cruising applications.

Neptun 500



Polyester 16

Polyester

Ø	Length	MBL	Weight	Color/I	tem no.					
mm	m	daN	g/m	white	red	navy-blue	white-red	white-neon green	white-black	black
6	200	700	24	0664	0663	0662	3466	3471	3476	3481
8	200	1,200	40	0667	0666	0665	3467	3472	3477	3482
10	200	1,800	62	0669	0670	0668	3468	3473	3478	3483
12	150	2,500	86	0673	0672	0671	3469	3474	3479	3484
14	100	3,400	116	0676	0675	0674	3470	3475	3480	3485
					HEAL	12.27	1000		-	19. 9. 27. 18

It classic design and pleasant-to-touch highly UV resistant cover are the main characterizing features of this allround rope for cruising yachts.





Dinghies & Sportsboats

An interview with

THOMAS ZAJAC & TANJA FRANK

Runners-up at the Tornado Worlds, Thomas Zajac and 420er Youth World Champion Tanja Frank have been a team since 2012 and will represent Austria in the Nacra 17 class at the Summer Olympics in Rio de Janeiro. In this interview, they tell us about their greatest successes so far and about FSE Robline®.

was when she was 2.5 years old.

Both of you are still relatively young. Yet, you have already achieved impressive successes. Yes, I won so far were arguably the titles of Junior World and this is always an absolute challenge. European Champion and the runner-up spot at the Tornado World Champs. Of course, qualifying for Rio And dangerous? Oh yes! If you sail with risk, the also belongs up there with our highlights.

How long have you been sailing with FSE Robline® I even did a somersault in a regatta, shortly before ropes? I started to use them in 2002. In Tanja's case, the finish line. Luckily, nothing really happened to us. due to her age, it was not so long ago.

Did you ever have to cope with extremely challenging and good health. Thank you for this interview. situations? In Thomas' case, the nine-month break, which he had to take in 2009 following a serious climb-

At what age do you have to start sailing to make it ing accident, was such a situation. Since the two of us to the very top? There is no single correct answer to are sailing on fast Nacra 17 twin hull boats, challenging that. My first time alone in a boat was in 1992. That situations are practically part of our everyday lives. In was at the age of seven. Tanja's first time in a boat strong-wind conditions and amidst high waves, you really need to have absolute control of your boat. For me, personally, the big challenges are always the "survival conditions" during a race.

the title of ISAF Youth World Champion, which arguably What do you mean by "survival conditions"? What was one of my greatest successes so far. However, Tanja means are high waves and strong winds beyond various podium finishes in the Nacra 17 in World Cup 25 knots, conditions which we often encounter in races. and European Cup regattas have also made me very To stay the course without harm to us or the equipment happy. The greatest achievements in Thomas' career in such conditions, while pushing ourselves to the limit:

> Nacra 17 boats are really incredibly fast. And definitely dangerous. Once, at Palma de Mallorca, Thomas and

> Tanja and Thomas, we wish you continued success



» The team behind FSE Robline® is made up of absolute professionals. They know exactly what matters when it comes to racing ropes. At the end of the day, we always get ropes with exactly those characteristics that are important to us.«

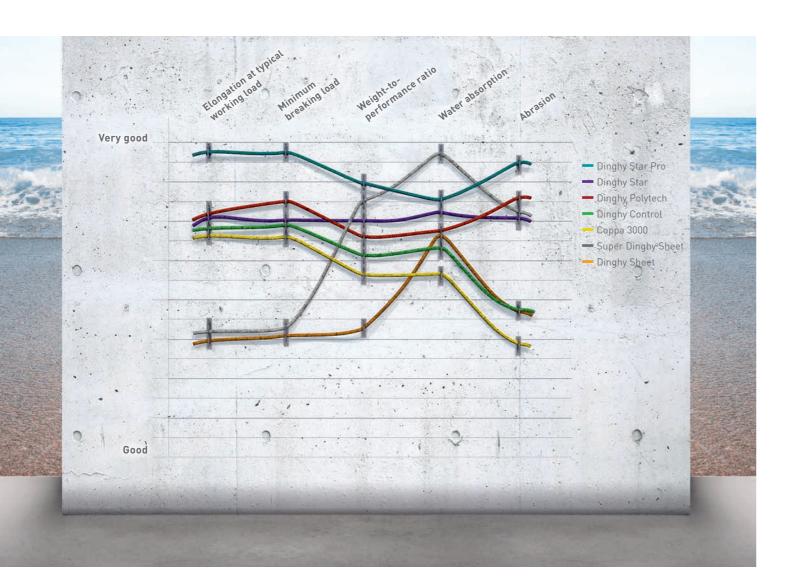
Thomas Zajac & Tanja Frank, pro sailors, Austria

ROPE PERFORMANCE INDICATOR

Dinghy & Sportsboats

The values shown in the performance indicator are intended for orientation purposes. They should assist customers in finding the most suitable product for a certain application. Please bear in mind that these are relative values meant to point out the product-specific differences within a performance category. Thus, a higher value, for example, means that the relevant rope delivers the highest performance in this parameter as compared to the rest of the product family.

Comparison of the performance criteria of Dinghy & Sportsboats ropes



Dinghy Star Pro







PBO/Dyneema* SK75 Dyneema* SK99 16/24/32

Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	white-brown
4	100	800	11	2667
5	100	1,300	16	2668
6	100	1,900	23	2669

The standard product for fast skiff and dinghy classes; ideal for applications requiring highest abrasion resistance and minimal elongation. PBO and Dyneema® SK99 and SK78 make up this perfect combination.

Dinghy Star







Dyneema® SK75/ Technora®/XLF 16/24/32/32 . 78

)	Length	MBL	Weight	Color/Item no.		
ım	lm l	daN	g/m	blue	yellow	red
	100	600	9.5	3490	3493	3496
	100	1,100	15.0	3491	3494	3497
	100	1,650	22.0	3492	3495	3498
	100	3,300	39.0	3500	3501	3499

High abrasion resistance combined with a strong Dyneema® SK78 core make for an ideal allround rope that comes in various colors. From stretchers to sheets – Dinghy Star meets your every need.

Dinghy Polytech







5.0 100

 Length
 MBL
 Weight
 Color/Item no.
 neon orange-black
 neon orange-black
 neon green-black

 100
 500
 9.2
 0214
 0215
 0211

 100
 1,200
 13.0
 0220
 0222
 0216

Made of polyester and Technora®, the Polytech cover sets a standard in bigboat racing. The abrasion resistant 16-plait cover and a color-

coded Dyneema® SK78 core make up an easy-to-splice rope for use on skiffs and dinghies.

Dinghy Control







Ø Length MBL Weight Color/Item no. IIdaN 150 2124 2129 2134 9445 9446 3.0 100 450 2125 2130 2135 8117 8120 4.0 100 700 11 2126 2131 2136 8121 8122 5.0 100 1,200 16 2127 2132 2137 2142 8123 8124 6.0 100 2128 2133 2138 2143 8125 8126 111111111 5555555 Ø 1,7 - 4 mm

Ø 5 - 6 mm

An allround high-tech control line that comes in various colors and diameters. The colored Dyneema® SK78 core also makes it easily recognizable in complex boat handling systems.

Coppa 3000









Polyester soft/XLF 16

Super Dinghy Sheet

Ø	Length	MBL	Weight	Color/Item no.		
mm	m	daN	g/m	black-yellow	black-green	black-red
6	200	1,700	20	3661	3663	3662
8	200	3,600	36	3664	3666	3665
10	200	5,600	54	3667	3669	3668
12	150	8,100	85	3670	3672	3671

0466

0468

0464

Weight Color/Item no.





0465

0467

0463

Super grip combined with the highest breaking force. The 16-plait cover made from PES staple fiber and XLF is readily spliceable and easy to handle on board. The staple fiber used in the cover makes this

The sheet for sailors looking for a durable cover with minimal water

absorption and low kinking tendency. Ideal for single-handed dinghies

Length MBL

100

100

100

daN

425

600

750

19

32

40

Ø

5.5

7.0

8.5

rope super grippy. Its 12-plait core made of Dyneema® SK78 ensures maximum breaking forces and low stretch.

XLF

250 8.0 9694 9688 9691 500 16.4 9695 9689 9692 850 29.0 9696 9690 9693

The lightweight among dinghy sheets. Dinghy Light is a rope made up of an 8-plait XLF core and a 32-plait cover. It is used wherever minimal

Length MBL

100 100

100

water absorption is crucial. This makes it particularly suitable for use as a lightweight spinnaker sheet.

8-Plaited Dinghy Pro

Dinghy Light



Ø	Length	MBL	Weight	Color/Item no.		
mm	m l	daN	g/m	red-gray	blue-gray	black-gray
4	100	390	14.7	2838	2839	2840
5	100	560	20.2	2841	2842	2843
6	100	820	31.1	2844	2845	2846

Weight Color/Item no.

8-Plaited Dinghy Pro is the result of continued development efforts. This becomes particularly noticeable in this rope's exceptional grip which makes it easier to control. In addition, 8-Plaited Dinghy Pro offers

Polyeste

better stability in the cleats. The proven benefits of 8-Plaited Dinghy such as compactness, dimensional stability, and minimal absorption of water were of course maintained.

and all applications where a low weight matters.

Technora®/XLF

Dinghy Coppa



Polyester soft/Polyester 16 XLF 16

Ø	Length	MBL	Weight	Color/Item no.		
mm	m l	daN	g/m	white-neon orange	white-neon green	white-pink
4	100	300	11	0156	0160	0161
5	100	450	16	0162	0163	0170
6	100	550	18	0171	0173	0175
7	100	900	25	0183	0184	0189
				THE PROPERTY OF	17722277000742	72579777777777

Fresh colors and good handling combined with minimal water absorption - a modern allround line for small dinghies.

Dinghy Sheet

Polyester/Polyamide 16



Ø	Length	MBL	Weight	Color/Item no.	
mm	m	daN	g/m	red-gray	black-gray
6	200	425	19	2970	2971
7	200	600	32	9032	2972
8	200	750	40	2973	2974

The kink-free sheet of Olympic champions. Dinghy Sheet combines all the characteristics one could possiblewant in a sheet. It does not kink, provides excellent grip, and has a compact and round shape. What is more,

Polyeste

its polyester/polyamide cover ensures enhanced abrasion resistance.

8-Plaited Dinghy

Polyester/Polyamide 8



Ø	Length	MBL	Weight	Color/Item no).		
mm	m	daN	g/m	red-silver	black-silver	blue-silver	white-silver
4	100	390	13	9661	9664	9662	9663
5	100	560	21	9666	9669	9667	9668
6	100	820	30	9671	9674	9672	9673
						1000	1000 S/C/C/

A strong allround rope made of prestretched polyester, dimensionally stable, compact, and minimally water absorbing.

Albatros



Ø	Length	MBL	Weight	Color/Item no.	
mm	m	daN	g/m	red-blue	yellow-red
6	200	350	14	3014	3077
8	200	650	24	3080	3081
10	200	900	38	3110	3109
					20002000

The ideal bowline or towline aboard dinghies or coachboats - buoyant, lightweight, and compact.



TAPERED LINES

The "Tapered Lines" range of the FSE Robline® brand is characterized by a wealth of outstanding properties. These include ultimate abrasion strength, minimal elongation, great handling comfort, and an attractive appearance. This is made possible by the use of premium quality raw materials from select suppliers.

Overview

Field of use	Item no.	Material	Length			Diame	eter		Color
Opti Main Sheet 7 m	7818	PES	1.5	2.5	3.0	6.5	9.0	6.5	navy-silver
Opti Main Sheet 7 m	7408	XLF	1.5	2.5	3.0	6.5	9.0	6.5	red-silver
Spi Sheet 11 m (420)	7583	PES/Dyneema® SK78	3.1	4.8	3.1	4.0	6.0	4.0	green-silver
Spi Sheet 18 m (470)	7584	PES/Dyneema® SK78	4.5	9.0	4.5	4.0	6.0	4.0	red-silver
Spi Sheet 8 m	3682	PES/Dyneema® SK78	1.0	2.0	5.0	5.0	8.0	5.0	red-silver
Cat Sheet 16 m	7457	PES	10.0	6.0	-	9.5	6.5	-	navy-silver
Spi Sheet 18 m (H-Boat)	7466	PES/Dyneema® SK78	7.5	10.5	-	5.0	8.0	-	green-silver
Spi Sheet 18 m (H-Boat)	7474	PES/Dyneema® SK78	7.5	10.5	-	5.0	8.0	-	red-silver
Spi Sheet 20 m (Kite)	7472	PES/Dyneema® SK78	7.0	13.0	-	5.2	8.3	-	green-silver
Spi Sheet 20 m (Kite)	7471	PES/Dyneema® SK78	7.0	13.0	-	5.2	8.3	-	red-silver
Spi-Sheet endless	7483	PES/Dyneema® SK78	10.0	13.0	10.0	6.0	9.0	6.0	navy-silver
Generic Tapered Sheet 20 m	8135	PES/Dyneema® SK78	10.0	10.0	-	4.0	6.0	-	green-silver
Generic Tapered Sheet 20 m	8139	PES/Dyneema® SK78	10.0	10.0	-	4.0	6.0	-	red-silver
Generic Tapered Sheet 24 m	8136	PES/Dyneema® SK78	12.0	12.0	-	6.0	9.0	-	green-silver
Generic Tapered Sheet 24 m	8140	PES/Dyneema® SK78	12.0	12.0	-	6.0	9.0	-	red-silver
Generic Tapered Sheet 30 m	7541	PES/Dyneema® SK78	15.0	15.0	-	10.0	7.0	-	green-silver
Generic Tapered Sheet 30 m	7542	PES/Dyneema® SK78	15.0	15.0	-	10.0	7.0	-	red-silver
Generic Tapered Sheet 36 m	8138	PES/Dyneema® SK78	18.0	18.0	-	8.0	12.0	-	green-silver
Generic Tapered Sheet 36 m	8158	PES/Dyneema® SK78	18.0	18.0	-	8.0	12.0	-	red-silver
Spi Sheet 18 m (470)	0484	PES/Technora®/Dyneema®	4.5	9.0	4.5	4.0	6.0	4.0	red-black
Spi Sheet 11 m (420)	0483	PES/Technora®/Dyneema®	3.0	5.0	3.0	4.0	6.0	4.0	red-black



MOORING & ANCHOR LINES

MOORINGLINES & ANCHORLINES

FSE Robline® brand yachting ropes are being used the world over and successfully so. In the case of mooring and anchor lines, what matters are abrasion strength, elongation, handling, and spliceability – properties that our FSE Robline® products incorporate to perfection.

Portofino



Polyester 12

Ø	Length	MBL	Weight	Color/Item no.	
mm	m	daN	g/m	white	black
10	200	2,500	65	2834	3486
12	150	3,100	85	2835	3487
14	150	3,700	110	2836	3488
16	150	4,500	140	2837	3489

and excellent stretch values. This mooring rope is also highly resistant to friction, and, thanks to high quality workmanship, it remains flexible in use.

The mooring line offering ultimate abrasion resistance. In view of its great success, Portofino is now available in an even greater variety of diameters. Its main benefits are its extremely high abrasion resistance

Riva.Flex



olvester 16

Polvester

Ø	Length	MBL	Weight	Color/Item no.			
mm	m l	daN	g/m	gray	black		
10	200	2,400	69	3129	3164		
12	150	3,000	98	3130	3165		
14	100	4,200	128	3138	3167		
16	150	4,900	165	3163	3168		



Excellent stretch characteristics bring peace of mind on board. Riva.

Flex is FSE Robline®'s top-of-the-line product in the mooring rope segment. By using premium quality materials for its core and cover, we achieved unparalleled stretch and abrasion characteristics that ensure

your peace of mind on board. The rope's cutting edge double weave consists of a polyester core and cover. Riva.Flex is easy to splice, UV resistant, and thus very durable.

Rio



Polyester 24

Polyester

Ø	Length	MBL	Weight	Color/Item no.		
mm	m	daN	g/m	white-black	navy	black
8	200	1,400	42	1032	9033	9045
10	200	2,000	69	1123	9034	9046
12	150	2,800	97	1862	9035	9047
14	100	3,900	127	1863	9036	9048
16	150	4,500	163	1906	9037	9049
18	100	5,500	196	1129	9038	9050
20	100	6,600	260	1130	9039	9051
24*	200	10,000	384	7946	9041	9053
28*	120	13,500	455	7948	9043	9055
32*	165	15,600	610	1 1941 1 1	2020 1020 1020 1020 1020 1020 1020 1020	7,7,7,7,7,9050,7,7,7,7,7,7
					1494949555555555	

Kink-free mooring rope for lovers of stylish design. Rio comes in a variety of diameters and colors and excels due to its immense resistance to

abrasion and its exceptional grip. Rio also impresses its users with its high breaking strength, UV resistance, and ease of splicing.

Monte Carlo XG



ester 32

Ø	Length	MBL	Weight	Color/Item no.		
mm	m	daN	g/m	white-gold	white-black	silver
9	150	1,600	51	9705	9706	2872
11	150	2,200	73	9588	9589	2873
13	150	3,000	98	0291	9591	2874
15	150	4,000	124	9592	9593	2875
17	150	4,800	155	9707 9708		2876

Highest quality with excellent stretch characteristics. Monte Carlo XG is the perfect match for boaters looking for modern design paired with

top functionality. Excellent grip, high breaking strength, UV resistance, and best spliceability are only a few of its many advantages.

Rapallo



Polyester 3

Ø	Length	MBL	Weight	Color/Item no.		
mm	m	daN	g/m	white	blue	anthracite
6	200	750	24	1052	7364	3702
8	200	1,200	43	1655	7365	3703
10	200	1,950	68	1054	7366	3704
12	150	2,700	94	1860	7367	3705
14	100	3,900	133	8470	8469	3706
16	70	4,600	163	8472	8471	3707
18	70	5,700	212	8582	8458	-
20	100	7,000	244	1673	7371	-
24*	100	10,200	351	1675	7540	-
28*	250	13,500	490	7940	7934	-
32*	125	15,300	620	7942	7936	-
36**	200	-	-	7943	7937	-
40**	150	-	-	7944	7938	-
*ooil / **	on roquest				C 76 76 78	STATE OF THE

The classic among mooring ropes featuring high abrasion resistance. Made of Polyester, the laid 3-strand Rapallo boasts excellent stretch characteristics, high abrasion resistance,

and highest UV resistance. Unsurprisingly, it has become one of the all-time classics among mooring and anchor ropes over the years.

Cormoran



XLF 3

Ø	Length	MBL	Weight	Color/Item no.		
mm	m	daN	g/m	navy	black	white
6	200	500	17	9065	9073	3169
8	200	900	29	9066	9074	3028
10	200	1,300	43	9067	9075	3049
12	150	1,800	59	9068	9076	3270
14	100	2,300	80	9069	9077	3273
16	70	3,000	106	9070	9078	1905
18	70	3,500	136	9071	9079	8581
20	100 4,000 148		9072	9080	3190	

Highly elastic, floatable, twisted mooring rope. Offering excellent value for money, Cormoran is perfect especially for those looking for an inexpensive mooring rope. Made of XLF, this twisted 3-strand mooring

rope is dirt repellent, extremely lightweight, floatable, and does not absorb water.

READY-MADE PRODUCTS

Ready-made products make your life easier. Ready for use and self-explanatory, they do not require any additional, timeconsuming customization. Pioneers in this segment, FSE Robline® Ready-made products excel, just like the rest of our vast product portfolio, through their high quality and impeccable workmanship.

3S Sirius 300 with soft shackle





Ø	Length	MBL	Weight	Boat length	Color/Item no.	
mm	m l	daN l	g/m	feet	white-navy	white-red
10	18	1,450	71	29 – 33	0631	0632
12	22	2,000	103	34 - 42	0652	0653

Technical data: Excellent abrasion resistance due to the 24-plait cover and low stretch are its hallmark characteristics. Premium quality PES fibers are used in the core, creating a perfect overall appearance.

3S Sirius 500 with shackle





Ø	Length	MBL daN	Weight g/m	Boat length feet	Color/ silver- red	Item no silver- blue	D. silver- black
8	30	1,800	49	<28	2259	2267	2385
10	35	2,600	71	29 – 33	2260	2268	2386
12	40	3,600	103	34 - 42	2261	2269	2387







Technical data: Sirius 500 consists of a highly abrasion resistant 32-plait polyester cover and an 8-plait core. Its Dyneema® splice makes sure that the breaking loads are utilized to the full extent possible.

3S Sirius 300 with snap shackle





Ø	Length	MBL	Weight	Boat length		Item no	
mm	m	daN	g/m	feet	white- red	white- navy	white- green
8	30	1,800	49	<28	0614	0616	0615
10	35	2,600	71	29 - 33	0628	0630	0629
12	40	3,600	103	34 - 42	0649	0651	0650
						eterterio del	(Word or Street

Technical data: Excellent abrasion resistance due to a woven 32-plait cover and low stretch are its hallmark characteristics. Premium quality PES fibers are used in the core, creating a perfect overall appearance.

Productbenefits:

- ✓ ready for use
- ✓ self-explanatory

- ✓ require no additional time-consuming customization
- no short lengths

Rapallo/Eye 250mm

Rapallo/Eye 350mm





Ø	Length	Color/Item no.			
mm	m	white	navy	anthracite	
10	4	9718	9722	-	
10	6	8351	7690	3689	
10	10	8350	-	3690	
12	4	9719	9723	-	
12	6	8353	7607	3691	
12	10	8352	7608	3692	

Ø	Length	Color/Item n	10.	
mm	l l _m	white	navy	anthracite
14	4	9720	9724	-
14	6	8355	7463	3693
14	10	8354	7609	3694
16	4	9721	9725	-
16	6	8357	7465	3695
16	10	8356	7464	3696
16	10	8356	7464	36

Rapallo/Thimble: plastic material







Ø	Length	Color/Item no.	
l _{mm}	m	white	navy
8	40.0	5171	-
10	2.5	8343	8702
10	4.0	8344	8701
10	40.0	5172	-
12	2.5	8345	7602
12	4.0	8346	7605
12	40.0	5173	-
14	2.5	8347	7604
14	4.0	8348	7601
14	40.0	5174	-
16	4.0	8349	7606
16	40.0	5175	-

	Color/Item no.
m l	white
20	1657
30	1658
20	1660
30	1661
30	1663
30	1668
	20 30 20 30 30

Twisted fender lines



Ø	Length	Color/Item n	Color/Item no.				
mm	l l m	white	navy	anthracite			
6	1.5	9322	9324	3697			
6	2.0	9323	9325	3698			
8	1.5	9326	9328	3699			
8	2.0	9327	9329	3700			
10	2.0	9330	9331	3701			

Rio/Eye 250mm



Ø	Length	Color/Item no.	
mm	l l _m	black-white	navy-blue
8	5.0	1184	-
10	6.0	1189	8708
10	10.0	9533	-
12	6.0	-	8707
12	7.0	1372	-
12*	10.0	1185	9827

Color/Item no.

1367

1376

1377

1128

*with chafing protection

10

12

12

14

Rio/Thimble: stainless steel

Length

30

20

30

30

Rio/Eye 350mm



Ø	Length	Color/Item no.	

Ø	Length	Color/Item no.	
mm	m	black-white	navy
14	7.0	-	8706
14*	10.0	1186	9829
16	8.0	-	8705
16	10.0	1392	-

*with chafing protection

Braided fender lines



Ø	Length	Color/Item no.	
mm	m	white	navy
6	1.5	9744	9748
6	2.0	9745	9749
8	1.5	9746	9750
8	2.0	9747	9751

Buoy Mooring Line



7153

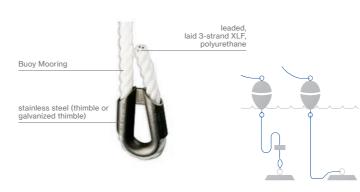
5176

32* *coil

110

9,000

594



The attachment system for mooring ropes. The technical features of Buoy Mooring Line give it a decisive edge over conventional anchor chains. Provided with a special coating, Buoy Mooring Line is unsusceptible to algae and mollusk growth.

Bonifacio Winch



Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	white
12	30	1,600	240	8464
12	50	1,600	240	8465
14	30	2,000	350	8562
14	50	2,000	350	8466
16	50	2 400	378	8524

Anchoring without a bow roller – innovation at its finest. Developed for use with anchor winches, Bonifacio Winch features a leaden core that runs along the entire length of the rope. This design permits horizontal dragging of the anchor, enhances its retention power, and also dampens the boat's movements. The spliced-in stainless-steel thimble permits quick fastening of the anchor. Delivered in a practical storage bucket, it is easy to stow aboard your vessel. When making Bonifacio Winch, great importance was attached to the use of premium quality materials for both cover and intermediate cover. PES fibers keep the Polyurethane-coated core from slipping out. This way, the rope is protected against corrosion, and the environment is protected, as well.

Poseidon



Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	white
10	50	1,700	-	2661
12	50	1,900	-	8526
14	50	2,600	-	8527
16	50	3,700	-	8528

available on request: 10mm - 30m, 12mm - 30m, 14mm - 40m

Leaded anchor rope meeting highest demands. In the case of Poseidon, lead inserts are integrated into the core over one third of its total length, which makes it easier to drag the anchor horizontally and enhances its retention power. In addition, the rope becomes easier to lift. Poseidon is delivered in a bag with a spliced-in stainless steel thimble. A high quality PES cover made out of a 16-plait weave as well as an intermediate cover also consisting of PES keep the lead insert from slipping out from the rope. A polyurethane coating affords additional protection on the insert.

READY-MADE PRODUCTS

Extension Mooring



Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	black
12	6	2,430	-	7363
14	6	2,900	-	1798
16	6	4,100	-	1799

The mooring rope with shock absorption The brilliantly integrated shock absorption system of Extension Mooring is what makes this polyamide mooring rope so unique. The integrated shock absorber gives Extension Mooring excellent stretch characteristics and makes it the ideal permanent mooring solution in harbors.

Miami





Ø	Length	MBL	Weight	Color/Item no.			
mm	m	daN	g/m	black	navy	red	
12	6	2,700	67	2917	2886	2877	
14	6	3,200	96	2918	2887	2878	
16	6	4.400	119	2919	2888	2879	







Innovative mooring rope with shock absorber. Miami combines high abrasion resistance with good stretch characteristics and a shock absorber. Made of premium quality 12-plait Polyester, the rope is provided with an integrated heavy-duty rubber shock absorber, thus ensuring optimum shock absorption characteristics. The integrated eye splice readies

Wire Lock



Ø		Color/Item no.							
'mm '	'm '	black	red-black						
9	1.0	7811	-						
9	1.5	9713	9715						
9	3.0	7700	9585						
9	5.0	7698	9587						

Security without scratching and dents. Wire Lock's backbone is a 7×19 stainless steel wire around which a 32-plait PES cover is braided that prevents abrasion and protects the core from UV-radiation. The eyes are protected by a rubber sleeve.

Mooring rope set



Ø	Length	Eye splice	Color/Item no.
mm	m	mm	black
9	4 pcs. 4m / 2 pcs. 10m	250	3583
11	4 pcs. 4m / 2 pcs. 10m	250	3584
13	4 pcs. 6m / 2 pcs. 10m	350	0455
15	4 pcs. 6m / 2 pcs. 10m	350	0456

Mooring ropes now available in a handy storage box. The Mooring Rope Set consists of 6 mooring ropes in two different lengths. The various mooring ropes are provided with a spliced eye having a diameter of 250mm and 350mm, respectively. The set comes in a handy storage box.



READY-MADE PRODUCTS ,

ALLROUND ROPES /

ALLROUND ROPES

Length MBL

900

33

10

200

Floating Security Line



3015





Easy to spot security rope made of XLF. Floating Security Line is made of a 16-plait XLF hollow weave. This makes it buoyant and easy to splice. Signal colors make it highly visible.

Polyester 16



All-purpose rope with good resistance to abrasion and stretch values. 16-plait PES cover. Twisted

Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	white
2.0	400	100	2	7770
2.5	280	150	5	7769
3.0	200	220	6	1013
4.0	200	370	10	1016
5.0	200	500	17	1019
6.0	200	600	22	1022

Weight Color/Item no.

and, from diameters of 4mm, 8-plait core.

Polyester 8



Ø	Length	MBL	Weight	Color/Item no.		
mm	m	daN	g/m	white	plastic card 20m	plastic card 50m
1	600	40	1	7771	-	-
2	400	90	2	7772	-	-
3	200	180	4	1126	3120	3121
4	200	310	7	1110	3122	3123
5	200	450	13	1736	-	-
6	200	550	19	1021	-	-
8	200	950	37	1024	-	-
10	200	1.500	54	1025	-	-

Low-stretch, grippy 8-plait all-purpose polyester rope.

Polyamide 8



Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	white
1.0	600	40	1	7762
1.5	500	60	1	7761
2.0	400	80	2	7764
2.5	280	120	3	7763
3.0	250	180	5	7765
4.0	250	310	7	7766
5.0	250	510	12	7767
6.0	100	740	18	0138
8.0	200	1,210	33	0018

Durable 8-plait all-purpose polyamide rope.

XLF8



Ø	Length	MBL	Weight	Color/Item no.		
mm	l l _m	daN	g/m	white	plastic card 20m	plastic card 50m
3	500	100	3.0	3001	3091	3090
4	500	200	5.4	3002	3097	3092
5	200	320	9.0	3004	-	-
6	200	450	16.0	3008	-	-
8	200	650	27.0	3009	-	-
10	200	1,100	40.0	3010	-	-

Buoyant 8-plait all-purpose XLF rope with high stretch.

Polyamide 16 Start



pecifically developed as an engine starter rope.
characterized by high abrasion resistance and
ninimal stretch. Featuring a 16-plait PA cover
nd an 8-plait PA core.

Ø	Length	MBL	Weight	Color/Item no.
mm	l l _m	daN	g/m	white
3.0	200	210	5.7	7760
3.5	100	290	8.8	0034
4.0	100	310	10.3	0035
4.5	100	400	12.0	0036
5.0	100	450	13.0	0037

Fully committed to every type of use

In manufacturing processes that define the latest state of the art, we make lines that are ready for anything.

SAILMAKERS /

SAILMAKERS

Dyneema® rubber line





Ø	Length	MBL	Weight	Color/Item no.
mm	ll _m l	daN	g/m	white
3	100	44	6	0447
4	100	89	13	0448
5	100	97	17	0449
6	100	105	26	0450
8	100	170	47	0451
10	100	260	85	0452

Newly developed product which, due to the excellent characteristics of Dyneema® fibers, is extremely abrasion resistant, while keeping the

rubber core from being overstretched. This rubber line is an indispensable product for modern skiff and catamaran classes.

Rubber line



Polyester Rubber

Ø	Length	MBL	Weight	Color/Item	no.			
mm	ll _m l	daN	g/m	white-red	black	blue	yellow	red
3	250	28	6	7738	9081	-	-	-
4	200	56	13	7739	9082	-	-	-
5	100	60	17	5159	5058	3355	-	3354
6	100	66	25	5160	9083	3356	-	-
7	200	88	37	3340	2935	-	-	-
8	100	111	45	5161	9084	3357	-	-
10	100	166	81	5162	9085	-	-	-
3	100	-	-	-	-	3350	3349	3348
4	100	-	-	-	-	3352	3351	3353
							NOTICE THE PARTY OF THE PARTY O	

Rubber line for high standards. The cover of the Rubber Line is made of highly abrasion resistant polyester, while its core consists of high quality rubber. This combination makes the rope compact, stable, and durable.

GFL Ultra

Special construction



Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	black
9	*	2,680	77	0486
11	*	3,330	130	0498
13	*	4,450	180	0487
15	*	4,800	193	0485

*-

GFL Ultra is an entirely newly developed special product for use with rollable flying foresails. Due to its special, innovative construction, it

transmits the torsional forces of the rolling mechanism directly along the entire length of the luff.

Profile line



ester 16 Polyeste

Ø	Length	MBL	Weight	Color/Item no.
mm	l _m	daN	g/m	white
3.0	200	150	7	1402
4.0	200	220	10	1403
4.5	200	280	15	1404
5.0	200	350	18	1405
6.0	200	450	25	1406
7.0	200	650	36	1733
8.0	200	1,000	49	1734

Compact profile line for your luff. This is a highly compact and abrasion resistant profile line featuring a smooth cover which consists of 16-plait PES of a very short lay length. The core is made of 8-plait PES.

Static Dyneema®





Ø	Length	MBL	Weight	Color/Item no.	
mm I	m l	daN	g/m	white	black
3	120	817	5.8	8384	8386
5	120	1,815	17.1	8385	8387
7	120	3,290	27.0	0135	0136

Lightweight and extremely strong. This safety line is made of 100% Dyneema® fibers. It represents a perfect alternative to steel wire ropes

for lifelines. This safety line is lighter, more flexible, and more long-living than steel ropes.

Polynite



XLF 3

Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	white
5	200	400	11	6009
6	200	650	15	6010
7	200	950	24	6011
8	200	1,300	32	6012
10	200	1,800	49	6013

Premium quality line with low creep. Polynite is a laid 3-strand rope made of high quality XLF. As a result, Polynite exhibits low creep and is therefore perfectly suited as a leech line.

Leech Line





Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	red-silver
1.7	250	130	2	9110
2.5	250	300	5	9111
3.0	200	500	7	9112
4.0	200	700	11	9113
5.0	200	1,000	16	9114

Leech line with minimal stretch. Leech Line performs at its best primarily when used with clam cleats. Its polyester cover lends to

Leech Line immense dimensional stability, and its Dyneema® core ensures its minimal stretch.

Dyneema® Cover



Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	white
5-8	100	-	13	0492
8-10	100	-	19	0493
11-15	100	-	25	0491

Dyneema® protective cover used to sheathe particularly vulnerable cordage portions.

Minispools

Polyester Colour



Ø	Length	MBL	Weight	Color/Item no.			
mm	m	daN l	g/m	red	blue	green	black
3	200	150	4	0022	0023	0024	0025
4	200	280	7	0027	0028	0029	0030
5	200	450	13	0201	0203	0204	0106
6	200	550	16	-	-	-	0032

Polyester trim or flag line. Very UV resistant, exhibits little stretch, and very abrasion resistant. Consists of 8-plait PES.

Minispools Polyester Colour



Ø	Length	MBL	Weight	Color/Item	n no.			
mm	ı m	daN	g/m	red	blue	green	black	assorted colors
3	20	150	4	0179	0182	0128	0185	0164

For use as a flag line or trim line. Low stretch, highly resistant to abrasion and UV, consists of 8-plait PES.

Minispools Orion 500



Ø	Length	MBL	Weight	Color/	Item no).					
mm	m	daN	g/m	red	blue	neonyel- low	neon- green	purple	pink	black	assorted colors
2	30	70	3	1296	1297	2962	2963	2964	2965	9086	9088
3	15	150	6	1306	1307	2966	2967	2968	2969	9087	9089
2	30	70	3	-	-	-	-	-	-	-	8133
3	15	150	6	-	-	-	-	-	-	-	8134

Extremely high quality polyester all-purpose rope. This product features a 16-plait cover combined with a yarn, both made of high quality polyester.

Minispools Classic-Tex



Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	traditional
3	15	120	5	5319

Eyecatching: the classic look of Classic-Tex. Twisted 3-strand XLF line.

Minispools XLF



Ø	Length	MBL	Weight	Color/Item no.
mm	m l	daN	g/m	white
1	50	25	1	3281
2	40	50	2	3117
3	15	100	3	3095
4	10	200	5	7119

Allround rope, very grippy, for a variety of applications. 8-plait line made of XLF.

Minispools Ocean 3000 XG

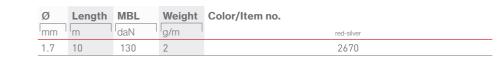




Dyneema® SK78

Minispools Leech Line





Dyneema® rope on a minispool for various applications. 12-plait cover with Dyneema® SK75 core.

Whipping twine

Whipping twine Dyneema® SK78





Ø	Length	Color/Item no.			
mm	l l _m	white	blue	green	red
1	50	4091	0228	0230	0225

Innovative whipping twine made of Dyneema® SK78. Dyneema® whipping twine excels mostly due to its high breaking loads and smooth surface. It is easy to handle and requires no additional waxing.

Waxed whipping twine



Ø	Length	Color/Item	no.				
mm	l lm	red	blue	green	black	brown	assorted colors
0.8	80	9680	9678	9679	9677	9685	0109

Whipping twine - particularly easy to handle. FSE Robline® waxed whipping twine made of colored polyester impresses users with the high quality of the twisted PES twine.

/ SAILMAKERS /

Waxed whipping twine



Ø	Length	Color/Item no.
mm	m	white
0.5	100	9635
0.8	80	9676
1.0	46	9640
1.5	32	9681

Whipping twine with a high wax content. Available as twisted whipping twine in diameters of 0.5mm and 0.8mm. From a diameter of 1mm, it is

braided and will not open because of the flat, strong seam. The special wax formula makes this whipping twine particularly easy to use.

Waxed whipping twine and needle



Ø	Length	Color/Item no.			
mm	m	white	brown	navy	
0.8	80	9716	9687	9843	

Waxed polyester twine with sailmaker needle. Available in cartons of 10 units each.





TRADITIONAL ROPES /

TRADITIONAL ROPES

It is first impressions that count. And if yachting lines actually do look like traditional ropes, are long living and abrasion resistant, chances are that they are traditional yachting ropes from FSE Robline®.

Classic 5000







Polyester 32 Polyester soft Dyneema® SK78

Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	traditional
10	200	4,200	52	2663
12	150	5,700	85	2664
14	100	7,400	119	2665
16	100	9,200	147	2666

enganggan kananan peranggan bahan kanan

Classic 5000 is a high tech yachting rope with a traditional look and offers regatta sailors on vintage yachts an attractive looking alternative to Performance category ropes.

Double Braided Classic





Polyester 32 Polyester

Ø	Length	MBL	Weight	Color/Item no.
mm	m l	daN	g/m	traditional
10	200	2,600	71	2361
12	150	3,600	103	2362
14	100	4,800	140	2363
16	100	6,500	178	2364

A traditional rope with a long life span. Based on the long standing and proven Sirius design, Double Braided Classic excels due to its ideal grip and high abrasion resistance. The 32-plait weave of this traditional

line consists of a combination of polyester staple fibers and polyester multifilaments and ensures the product's long service life.

Classic-Tex





XLF 3

Ø	Length	MBL	Color/Item no.
mm	m	daN	traditional
3	400	120	5310
4	200	165	5311
6	200	355	5312
8	200	595	5313
10	200	900	5314
12	150	1,340	5315
14	100	1,740	5316
16	150	2,180	5317
30	50	5,700	5347

A new edition of this all-time classic Made of XLF, Classic-Tex looks like a traditional rope, but behaves like a state-of-the-art yachting rope. Its benefits include a long service life, low stretch, and zero water absorp-

tion. Classic-Tex can be used as a sheet, in tackles, as a multi-purpose rope, and for decorative purposes.

Spunflex





YI F 3

Ø	Length	MBL	Weight	Color/Item no.
mm	m	daN	g/m	traditional
6	220	550	17	7170
8	220	960	29	7171
10	220	1,430	45	7172
12	220	2,030	74	7173
14	220	2,790	94	7100
16	220	3,500	124	7046
18	220	4,500	142	7047
20*	220	5,500	184	7174
22*	220	6,700	219	7175
24*	220	7,500	254	7176
26*	220	8,900	320	7177
28*	220	10,100	347	7048
32*	220	11,000	446	7178
*coil				I KARALA BELLA

A symbiosis between traditional look and cutting edge tech Spunflex bridges the gap between modern yachting ropes and traditional appearance. XLF fibers make Spunflex long living, abrasion resistant,

low-stretch, and resistant to water absorption. It is suited for use as a multi-function rope and for decorative purposes.

The classics of modernity

The result of a fusion between traditional appearance, compelling style, and cutting edge technology.

ACCESSOIRES

Safety Net & Safety Line



Item	Length	Ø	Color/Item no.
	m	mm	white
Line	100	7	5090
Net	210	2	8382
Net	70	2	5091

Important! Line and net must be ordered separately!

Stainless steel splicing set with hooks



Item	Item no.
Stainless steel splicing set with hooks	5097

For polyester and high tech yachting ropes from 3 to 10mm.

Heat-cutting device



Item	Color/Item no.			
	white			
Cutting knife	5023			
Heat-cutting device	5022			

Dyneema® Scissors



Item	Color/Item no.
	gray
Dyneema® Scissors	5379

Special scissors with microserration for high tech fibers.

Multi-Purpose bag



Practical multi-purpose sports bag of high quality workmanship.

Color: blue

Dimensions: 55 x 25 x 30cm

Item no.: 7991041

Belt



140 cm long, cutting to length is easy with a heat-cutting device

Item no.: 7991040

Polo shirts



High quality MUSTO polo shirts sporting the FSE Robline^s logo. Colors: blue, black, and white

Item numbers for sizes: S: 7999989 M: 7999963

L: 7999964 XL: 7999965 XXL: 7999966

Classic display



The ideal presentation platform for FSE Robline® products. Can be used with or without photowall and cover.

The display is available in the following color: gray (RAL 9006).

Item no.: 5279

Soft Shackle Ocean



Item	Length	Ø	Color/Item no.
	m	mm	gray
Soft Shackle Ocean	80	4	2880
Soft Shackle Ocean	95	6	2881
Soft Shackle Ocean	155	9	2882
Soft Shackle Ocean	205	12	3599
Soft Shackle Ocean	240	14	3600

FIBER TYPES

Overview

- Monofilaments

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

FSE Robline® products: Floating Security
Line

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.

FSE Robline® products: Globe 5000, Orion 300/500

- 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.

FSE Robline® products: Racing Sheet

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.

Products: Ocean 3000 XG, Admiral 7000/5000/3000, Globe 5000/3000/1000, Dinghy Control, Ocean Dyneema®

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

Products: Admiral Vectran®, Vectran® 3000, GFL

PBO (Polybenzoxazole, Crystal Polymer)

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.

Products: Custom-made

Aramio

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 Akzo (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.

Products: Ocean Dyneema®, Leech Line 3000

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.

Products: Orion 300, Sirius 500, Rio, Rapallo

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.

Products: Palermo

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. **Products:** Albatros, Cormoran

Overview of products

Rope	Starting material	Strength daN/mm²	Specific gravity kg/cm³	Water absorption	Resistance to sunlight	Elongation %	Abrasion resistance	Creep	Melting point
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
Dyneema®/ Spectra®	VHMPE	345	0.97	0	good	3.5	very good	at high loads	140
Aramide	Aramid	250	1.45	3.0	poor	3.5	very good	nearly not measurable	450
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	-

To the max!

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

ROPE CARE

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.

Heat

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

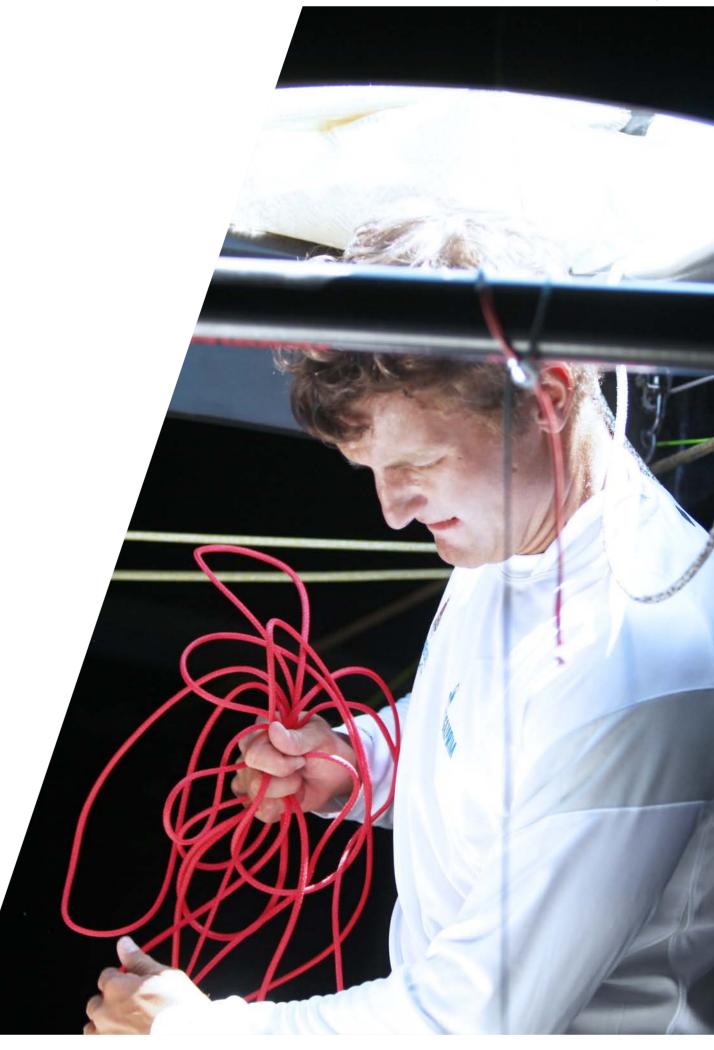
Ultraviolet rays may affect the quality and lifetime of synthetic fiber ropes. Hence, it is imperative to limit the exposure of ropes to sunlight to a minimum, if possible.

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.



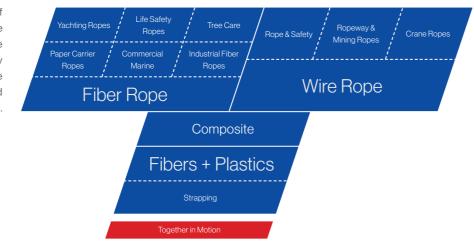
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What started back in 1790 with simple hemp ropes has since evolved into a globally successful group of enterprises specializing in the development and production of fiber and steel wire ropes, strapping, and composites.

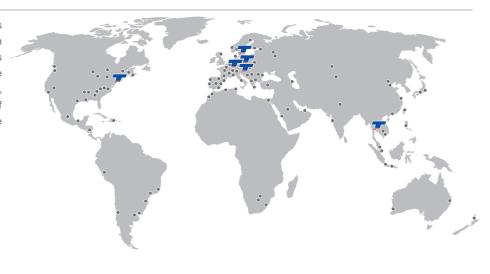
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