







ARMARE ROPES IS AN OFFICIAL SUPPLIER TO EMIRATES TEAM NEW ZEALAND FOR THE 35TH AMERICA'S CUP CAMPAIGN









ARMARE ROPES
HAS A CONSOLIDATED EXPERIENCE
IN THE SUPPLY
OF RUNNING RIGGING SOLUTIONS
FOR LARGE SUPER YACHTS.
ONE AMONG ALL,
THE PERINI NAVI "SYBARIS":
THE LARGEST SAILING YACHT
EVER LAUNCHED IN ITALY



Perini Navi "Sybaris" 70 m



Oyster Yachts "Solitaire"



Alloy yachts "Mondango III"



Atalanta II



Nautor's Swan "Muzuni" 30 m



Vitters Shipyard "Timoneer" 45 m



Royal Huisman's "Unfurled" 34 m



Raichel & Pugh "Oudream" 24 m



Fitz Roy "Ohana" 50 m



Vitters Shipyard "Lady B" 45 m



Spirit Yacht "Gaia"



Camper & Nicholsons "Orion of the Seas" 45 m



Southern Wind 100 "Fado" 30 m



Baltic 107 "Inukshuk" 33 m



Royal Huisman Shipyard "Borkumriff IV" 50.58 m



Perini Navi "Rosehearty" 56 m



Wally "Saudade" 45 m





The company, the history, the mission

Armare designs, manufactures and tests its products in Italy, in San Giorgio di Nogaro (Udine) – 4,000 m2 of twisting, stranding, braiding, special treatments, splicing, testing and hand finishing – following a long family tradition.

The wide range of Armare products, distributed in Italy and all the main European and overseas markets, includes technical solutions for both sailing and motor boats, but also cordage for aerospace, military, medical, sports, oceanographic, professional fishing and many industrial applications.

One of the hallmarks of Armare, is the ability to personalise the already wide range of products, with custom finishes: this unique offer, allows all operators, project managers, riggers, owners or shore-teams, to satisfy every possible need. Moreover, Armare is a synonym of safety and reliability, guarantee of fast delivery times and ability to make particular handmade finishings and splicings. To deal with an always quicker technological evolution and the advent of technical fibers, increasingly sophisticated and with extreme performance, Armare makes permanent investment in research and innovation to develop avant-garde solutions.

The collaboration with the most qualified riggers and the most renowned technician of the marine sector, has enabled Armare to supply composite-cables, running rigging and special textile accessories to the most famous sailing teams and prestigious shipyards, and its products are recognized as leader within the highest sectors.

Furthermore, starting from 2016, Armare has been selected as OFFICIAL SUPPLIER to Emirates Team New Zealand for the 35th AMERICA'S CUP campaign.

A sustainable development

Since its establishment, Armare has undertaken a company policy of respect towards the territory on which it was founded and continues to work, protecting the environment, not only as far as its internal operations are concerned, but also considering the materials of

production, in strict accordance with the latest concepts of environmental sustainability and environmental friendliness.

The recycling average of the Armare production chain is more than 96%.









Conventional and basic fibers

Fibers most commonly used for the production of ropes

POLYESTER = PET POLYAMIDE = PA

Technical high performance fibers

Derived from the "aromatisation" of the basic fibers.

VECTRAN (LCP) is derived from Polyester (PET).

KEVLAR® and other **ARAMID** fibers such as **TWARON**® and **TECHNORA** are derived from Polyamide (PA).

Latest generation technical fibers

Fibers completely different from each other in chemical composition and general technical characteristics, are today among the most important fibers, used for high performance applications. The acronyms are **HMPE** and **PBO**. The trade names are respectively **Dyneema®** and **Zylon®** respectively. The Dyneema® fiber, available in SK99 and SK78, while maintaining constancy in its basic characteristics, offers a wide range of performances when it is coupled to the various covers.

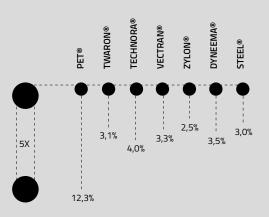
COMPARATIVE TABLE OF THE PROPERTIES OF THE FIBERS USED BY ARMARE

NAME	MATERIAL	TENACITY	ELONGATION	SPECIFIC GRAVITY	ATMOSPHERIC AGENTS RESISTANCE	ABRASION RESISTANCE	FUSION TEMP.
		[cN/dTex]	[%]	[Kg/dm³]	[-]	[-]	[°C]
DYNEEMA® SK99	UHMW-PE	42,5	3,2	0,975	Excellent	Very good	147
DYNEEMA® SK78	UHMW-PE	35,1	3,5	0,975	Excellent	Very good	147
ZYLON®	РВО	37	2,5	1,56	Very poor	Little	660
KEVLAR® / TWARON®	ARAMID	20,8	2,4	1,44	Little	Poor	430
VECTRAN®	LCP	24,2	3,3	1,41	Poor	Little	330
TECHNORA®	ARAMID	22,3	4,0	1,39	Little	Poor	500
POLYESTER	PET	7,6	12,3	1,38	Good	Very good	260



CONSIDERING THE USE OF A TECHNICAL FIBER OR THE CHOICE OF THE HPS TREATMENT, CAN PREVENT AN UNDESIRED LENGTHENING: STRETCH, CREEP, MODULUS

TECHNICAL FIBERS: ELONGATION AT BREAK



Syntetic fibers tested in accordance with ISO 2062

TO LEARN MORE ABOUT THE DIFFERENT FIBERS

CONVENTIONAL BASIC FIBERS	TECHNICAL HIGH PERFORMANCE FIBERS	LATEST GENERATION TECHNICAL FIBERS
PET = POLYESTER DACRON® PET® TREVIRA® OTHERS	LCP VECTRAN®	UHMW-PE DYNEEMA® SPECTRA®
PA = POLYAMIDE NYLON® ENKALON® PERLON® OTHERS	ARAMID KEVLAR® KEVLAR®/TWARON® TECHNORA® NOMEX®	PBO ZYLON®

Stretch

the words "elongation" and "stretch" have the same meaning and indicate the phenomenon related to the fibers of a rope that, when subjected to tension, return to their original length when the tension is released. This phenomenon is called "reversible lengthening" or "elastic". The elongation of the fiber is related to the specific "modulus" of the same and indicates how much resistance the fiber is able to oppose to elongation. The higher the value of the modulus, the lower the elongation.

Creep

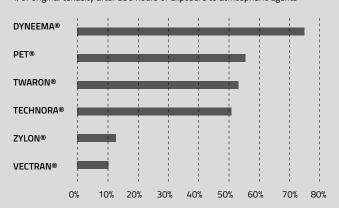
It is the characteristic of the fiber with which the rope has been made. The fiber creeps when subjected to a constant load for a given time. The result is irreversible and is called "plastic elongation." This deformation depends on the applied load, on the time which the load is maintained and on the temperature. The higher the temperature to which the line is subjected, the greater the elongation of the rope.

Low stretch ropes

When a halyard or a sheet elongates, the sail loses its correct airfoil, so the boat cannot accelerate and fully exploit its power. Furthermore, the more elastic the rope, the more energy it absorbs. This energy is taken away from the sail: the loss of energy affects acceleration, especially in gusty conditions, with the result of a continuous need for adjustment of the rope / sail and with appreciable reductions of navigation performance.

RESIDUAL STRENGTH OF TECHNICAL FIBERS

% of original tenacity after 336 hours of exposure to atmospheric agents



Simulation of aging according to standard ASTM G-155 Syntetic fibers tested in accordance with ISO 2062



THE ELONGATION OF A ROPE
MADE WITH DYNEEMA®
IS MINIMIZED THROUGH
A TREATMENT CALLED
HEAT PRESTRETCH SETTING
WHICH IS IRREVERSIBLE.
IT MAKES THE ROPE COMPACT
AND STABLE TO OBTAIN
THE BEST PERFORMANCE
FROM THE DYNEEMA® FIBER

HPS SUPER YACHT LINE

What is the HPS treatment

The Heat Prestretch Setting regulates the tensioning of the fibers that make up the rope and sets them in an optimal way, bringing them to a high-temperature and subjecting them to a constant load for a given time. The result is a rope with a very high specific modulus, without construction elongation and a higher Breaking Load if compared with non prestretched ones.

Ropes with the HPS treatment

As mentioned above, the advantages of this treatment are obvious. It is clear that the HPS treated rope is much more compact, less flexible and therefore also a few tenths of a millimeter thinner than a rope with the same non prestretched core. Therefore, when choosing a rope, we must carefully consider the technical level of our boat because, the higher the technical level of the selected rope, the higher and more appropriate the technical level of the deck equipment and of the crew should be.

Left: a braid with Dyneema® inside the infrared furnace, undergoing HPS treatment.

For which rigging is it recommended?

It really depends on the type and on the technical level of the boat. In any case, the HPS treatment is to be preferred on halyards. In this application, the slightly higher stiffness of the ropes will not be a problem, as they are used much less than other lines. On high-level racing boats, almost all the running rigging is made with prestretched ropes. These prestretched ropes can, however, be composed of different fibres and can be made up with covers of different compositions.



Single braid Dyneema® without HPS treatment: the braid is soft and "airy".



The braid after the HPS treatment: the fibers are oriented and the rope is more rigid and compact.



Construction and colour composition of the ropes

Ropes, especially the technical ones, can be single braid or double braid.

In the first case, the fiber (typically Dyneema®) is left without cover. In the second case, the fiber is protected by a second layer (the cover) with protective functions, but also to make the rope more manageable and with a better grip. The color, or mix of colors of the sock can be chosen among the many available, following the indications on the composition, by taking into account the type of construction and the fiber.

SINGLE BRAID CONSTRUCTION



Some ropes, like Vec-Tec and Dyneforce have a single braid construction. They are very easy to splice.

DOUBLE BRAID CONSTRUCTION



This is the most widely used type of construction, with an internal braided core and a protective outer braid. They are medium-difficult to splice.

COLOURS OF THE TECHNICAL FIBERS

Dyneema®



Vectran®



Kevlar®



Technora®



PBO-Zylon®



Black Technora®



Cordura + PET



AVAILABLE COLOUR COMPOSITIONS FOR DOUBLE BRAID CONSTRUCTION ROPES

SOLID COLOUR



The cover is entirely manufactured with PET solid colour, to choose among standard and special colours.

FLECK 1



The cover is completely manufactured with PET solid colour, with one coloured fleck. Choose the base colour and the colour of the flecks among standard and special colours.

FLECK 2



The cover is completely manufactured with PET solid colour, with two coloured flecks. Choose the base colour and the colour of the flecks among standard and special colours.

MARKER



The cover is entirely manufactured with PET solid colour with coloured markers. Choose the base colour, the number and the colour of the markers, among standard and special colours.

MIX



PET cover, composed of two distinct colours, but coupled in the construction. Standard: base grey with a second colour to choose between Azure, Red, Yellow, Green, Navy Blue. Custom: combination of two colours to choose among standard and special colours. SNAKE



Cover made with two fibers (technical fiber + PET), with a final snake aspect.
The technical fiber part (Kevlar®, PBO-Zylon®, Dyneema®) has the natural colour of the same. Polyester Colour to choose among standard and special colours.

MELANGE



Cover composed of two colours mixed together at random. It can be made with PET of different colours or two different fibers (eg technical fiber + PET). The technical fiber part has its natural colour. Polyester Colour to choose among standard and special colours.

MELANGE TECHNO



Cover consists of two technical fibers mixed together at random. The final result is a mixture of the two technical fibers in their natural colours, influenced only by the percentage of each of the technical fibers within the composition.



ARMARE ROPES OFFERS MANY HANDCRAFTED FINISHES ON THE ROPES THAT CAN BE CUSTOMIZED WITH SPLICES, **PROTECTIONS OR WITH** THE APPLICATION OF TIMBLES AND OTHER TERMINALS **ACCORDING TO SPECIFIC REQUESTS**

FINISHES

SUPER YACHT LINE

SINGLE BRAID



Eye splice single braid CODE LO1





Eye splice with cover double braid CODE LO3

DOUBLE BRAID



Eye splice on stainless thimble single braid / CODE LO4



Eye splice without cover on stainless thimble double braid / CODE LO5



Eye splice with cover on stainless thimble double braid / CODE LO6



Splice on lash bobbin single braid



Eye Splice without cover on lash bobbin double braid / CODE L10



Eye Splice with cover on lash bobbin double braid / CODE L11





Tapering on double braid **CODE LO7**



Dyneema® TIP on double braid **CODE LO8**



Halyard spliced loop for mousing line **CODE L14**



Halyard sewn loop for mousing line **CODE L15**



Whipping on rope end **CODE L16**

Splices, lashings, taperings

Ropes often require some splicing or different finishes, depending on the intended use, whether on board a boat, for the use by a sail maker, for an industrial application or security. These special processes are carried out by Armare, either at our laboratory or directly on board: they are very accurate both technically and aesthetically.

Important notes on splicing

For each type of construction of the lines, there is a different method of splicing (that means the creation of a loop on one or both ends of the line), designed to minimize the loss of Breaking Load which results from this process. An accurately constructed splice retains 80% to 90% of the Breaking Load of a brand new rope. An incorrect splice, can reduce the Breaking Load of a brand new rope by more than 60%; this means that the suggested working load of the rope is very closed to the Breaking Load. The same is true for knots that can halve the strength of the rope, as the fibers are strangled against each other, cutting themselves where the pressure is highest.

Advantages with handcraft

- Maintainance of almost the overall load performance.
- The immediate and practical final use of the rope.
- The preparation for prolonged use, without further action (such as the "milking" of the sock, in order to eliminate the slacks created with use).
- A pre-settling of the rope: splicing requires the application of a minimum traction load, that alligns the fibers and stretches them.





Available Cores

Dyneema® SK99







The Dyneema® SK99 delivers the highest tenacity available in a light weight polymer fiber. It shows a 7% increase tenacity over SK90 and 20% over SK75 and SK78 and the modulus is 10% higher than SK90 and 35% higher than SK75 and SK78. This translates into thinner and lighter weight lines than other ropes, made with the same diameter, but with significantly increased strength. The result is a better performance from more compact running rigging and guarantee a lower stretch, better sail performance and boat response.

Dyneema® SK78







The High Modulus fiber Dyneema® SK78, characterized by a remarkable stability under constant loads, provides the following features: low creep, elevated Breaking Load, low elongation, light weight, low level of water absorption, high resistance to U.V. rays and abrasion, great flexibility, high resistance to cutting. The lines made with Dyneema® SK78 are therefore destined to extreme performances, especially during highly demanding regattas when the permanent load is present.

Captive SK78

It preserves high Breaking Loads and low elongation thanks to the use of high modulus fibres. Moreover, it holds the essential characteristics necessary to grant the good working of a Captive Winch System like flexibility, a steady shape, no sliding between core and cover, high abrasion resistance ad excellent behaviour between sliding and grip on drums. The choice can be done among six different covers, with diverse characteristics suitable for different types of winch and yachts.



PBO-Zylon®

Unbeatable resistance to abrasion and heat. Thanks to its properties, it is the best choice among the range of technical ropes, in the application where high temperatures due to the high loads are constantly present. PBO cover is especially used for the Runners Tackles and high friction/load sheets.

BTEC/PET

Black Technora / PET

This rope is used on monotypes, oceanic boats and on Super Yachts. It combines functional characteristics of high level, with UV and abrasion resistance, and good grip. The look is also winning, thanks to the mixture among the black of Technora and the different colours of the Polyester.

PBO / Dyneema®

The resistance to abrasion is high, thanks to the great presence of PBO. The right mix with the Dyneema fibre transfers to the rope the good fluidity, when it's released under load on winch. Tests on racing boats have demonstrated that this cover has an incredibly durability to the high frequency movements. High loads and temperature don't scare the rope and it's the good solution for Afterguys and Genoa Sheets.

CRD/PET Cordura /

PET

Lightness, high breaking load, low creep and minimum elongation with a perfect grip: these are the four main characteristics, which identify this rope. It is studied to obtain an excellent grip on stopper and winch, through the use of special anti-slip fibers. Moreover, it can be chosen whether as halyard or as sheet, thanks to its soft and grip hand.

PBO/PET

PBO / PET

Good resistance to abarsion and heat with good control under load. Better identification of the line thanks to coloured Polyester. Tackles, sheets and runner backstays.

PET

Polyester

Indicated for multiple uses, as sheets, halyards and general running rigging, thanks to its good durability.

Black Technora Dyneema®

This rope is composed by two of the best fibres in terms of durability and performance. The mixture of them is carefully studied to be fairly distributed and to profit by the best quality of both fibres, in order to lead the rope to excellent results in terms of smoothness, abrasion resistance and durability. Ideal for manoeuvres of high effort and repeated mechanical stress, in particular where the wear of the cover is steadily present.

BTEC/DYN/PET Black Technora Dyneema® / PET

It is suitable for numerous boats and uses. Thanks to the presence of Polyester, it is easy to customize, and it becomes more recognizable in the distinction among different manoeuvres. In comparison with BTEC+DYN cover, it has a lightly lower strength on intensive uses, but it maintains the main characteristics, with an excellent resistance to abrasion and repeated bending. The extraordinary smoothness makes simple the control and the release on winch, without influence on the grip.



SUPER YACHT LINE

DYNEEMA® SK99 + HPS + PU

Elevated Breaking Load Minimal Elongation Ultralight Weight Highest Tenacity Low Water Absorption High UV Resistance Good Flexibility
Ultimate Top Performance

Ø		DYNEFORCE 99 SINGLE BRAID		FOR ALL COVERS	РВО	PBO/ DYN	PBO/ PET	BTEC/ DYN	BTEC/ DYN/PET	BTEC/ PET
DIAMETER	B. L.	WEIGHT		B. L.	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT
[mm]	[daN]	[g /m]		[daN]	[g /m]	[g/m]	[g /m]	[g/m]	[g /m]	[g /m]
14	25.262	110,00		14.680	142,64	140,31	141,27	138,53	137,16	139,90
15	28.748	129,00		16.495	165,86	163,15	164,26	161,07	159,48	162,67
16	30.000	145,00		18.220	189,07	185,98	187,25	183,62	181,80	185,44
17	32.300	162,00		22.177	205,88	202,51	203,90	199,94	197,96	201,92
18	34.600	180,00		25.262	222,68	219,04	220,54	216,26	214,12	218,40
20	45.900	216,00		28.748	278,36	273,81	275,68	270,33	267,65	273,00
22	55.300	278,00		30.000	323,52	318,23	320,41	314,19	311,08	317,30
24	63.500	330,00		34.600	383,40	377,13	379,71	372,34	368,65	376,02
26	74.350	355,00		45.900	441,17	433,96	436,93	428,44	424,20	432,68
28	83.460	418,00		55.300	582,97	573,44	577,37	566,16	560,55	571,76
30	91.500	497,00		63.500	724,78	712,93	717,81	703,87	696,90	710,84
32	99.920	565,33		74.350	762,52	750,06	755,19	740,52	733,19	747,86
34	108.300	636,33		83.460	850,18	836,29	842,01	825,66	817,48	833,83
36	-	-		91.500	937,85	922,52	928,83	910,79	901,78	919,81
38	-	-		99.920	1.025,51	1.008,75	1.015,65	995,93	986,07	1.005,79
40	-	-		108.300	1.113,17	1.094,98	1.102,47	1081,06	1070,36	1.091,77

NOTE ABOUT BREAKING LOAD AND DIAMETERS The average values shown above are derived from tests taken at Armare laboratory, on properly spliced new ropes, and may change without notice. Other diameters available on request. The static load of the rope must not exceed 20% of Breaking Load shown in the table. Knots may affect the Breaking Load of the rope with reductions of up to 60%. The splicing increases the diameter of the rope of about 1.5 times. The use and exposure to weather conditions, depending from the kind of rope and the time of esposure, can reduce the breaking loads of the ropes.













SK99 Single Braid

COVER Single braid without cover.

SK99 - PBO

COVER PBO®.

PRODUCT CODE NA20

CORE 12 plait with Dyneema® SK99 impregnated with polyurethane coating and special heat treatment HPS.

CORE 12 plait with Dyneema® SK99 impregnated with polyurethane coating and

special heat treatment HPS.

PRODUCT CODE NA20C56

FEATURES AND USE

Elevated breaking load Minimal elongation Ultralight weight Highest tenacity Low water absorption High UV resistance Good flexibility Ultimate top performance

protection cover.

FEATURES AND USE Unbeatable resistance to abrasion and heat. Thanks to its properties, it is the best choice among the range of technical ropes, in the application where high temperatures due to the high loads are constantly present. PBO cover is especially used for the Runners Tackles and high friction/load sheets.

STANDARD DIAMETERS From 14 to 34 mm. Other diameters on request.

Product avalaible without cover or with

STRETCH AT 30% B. L. 1,70% **STRETCH AT B. L.** 2.86%

STANDARD DIAMETERS From 14 to 40 mm. Other diameters on request.

STRETCH AT 30% B. L. 1,70% **STRETCH AT B. L.** 2.86%

COLOURS Natural PBO.

COLOURS

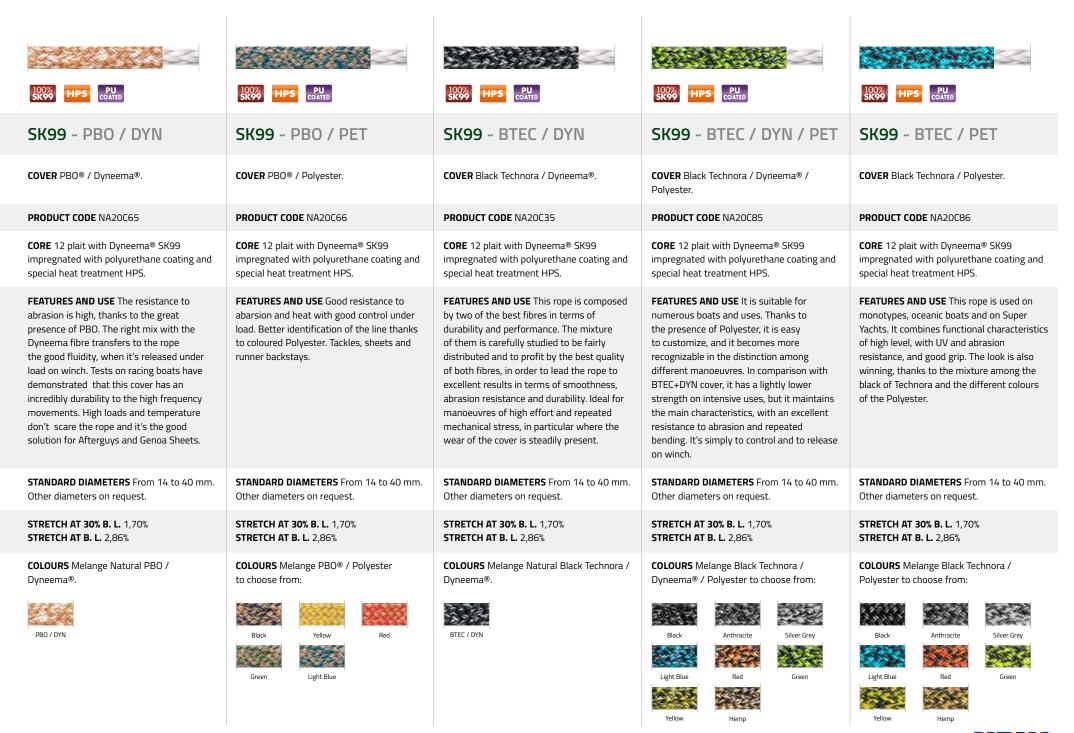














SUPER YACHT LINE

DYNEEMA® SK78 + HPS + PU

Low Creep Elevated Breaking Load Low Elongation

Light Weight Low Water Absorption High UV Resistance

Good Flexibility High Chafe Resistance

ø	DYNEFORCE 78 SINGLE BRAID		FOR ALL COVERS	PBO/ PET	BTEC/ DYN	BTEC/ DYN/PET	BTEC/ PET	CRD/ PET	PET
DIAMETER	B. L.	WEIGHT	B. L.	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT
[mm]	[daN]	[g /m]	[daN]	[g/m]	[g /m]	[g /m]	[g /m]	[g /m]	[g /m]
14	20.000	128,00	11.600	152,85	149,88	148,40	151,37	146,92	148,40
15	23.000	144,00	13.100	169,13	165,84	164,20	167,48	162,56	164,20
16	26.300	160,00	16.000	185,40	181,80	180,00	183,60	178,20	180,00
17	29.000	180,00	17.780	201,88	197,96	196,00	199,92	194,04	196,00
18	31.400	200,00	20.000	218,36	214,12	212,00	216,24	209,88	212,00
20	37.000	250,00	23.000	272,95	267,65	265,00	270,30	262,35	265,00
22	44.000	300,00	26.300	317,24	311,08	308,00	314,16	304,92	308,00
24	50.500	350,00	31.400	375,95	368,65	365,00	372,30	361,35	365,00
26	56.200	380,00	37.000	432,60	424,20	420,00	428,40	415,80	420,00
28	65.000	430,00	44.000	571,65	560,55	555,00	566,10	549,45	555,00
30	72.900	475,00	50.500	710,70	696,90	690,00	703,80	683,10	690,00
32	80.000	526,00	56.200	849,75	833,25	825,00	841,50	816,75	825,00
34	87.000	578,00	65.000	955,84	937,28	928,00	946,56	918,72	928,00
36	-	-	72.900	1.078,41	1057,47	1047,00	1.067,94	1036,53	1047,00
38	-	-	80.000	1.200,98	1177,66	1166,00	1.189,32	1154,34	1166,00
40	-	-	87.000	1.323,55	1297,85	1285,00	1.310,70	1272,15	1285,00

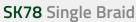
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COVER Single braid without cover.









COVER PBO® / Polyester.

PRODUCT CODE NA58C66

CORE 12 plait with Dyneema® SK78 impregnated with polyurethane coating

and special heat treatment HPS.

PRODUCT CODE NA58

CONSTRUCTION 12 plait with Dyneema® SK78 impregnated with polyurethane coating and special heat treatment HPS.

FEATURES AND USE

Low creep Elevated breaking load Low elongation Light weight Low water absorption High UV resistance Good flexibility High resistance to cutting Product avalaible without cover or with protection cover.

abarsion and heat with good control under load. Better identification of the line thanks to coloured Polyester. Tackles, sheets and runner backstays.

FEATURES AND USE Good resistance to

STANDARD DIAMETERS From 14 to 34 mm. Other diameters on request.

STRETCH AT 30% B. L. 2,16% **STRETCH AT B. L.** 3.20%

COLOURS



STANDARD DIAMETERS From 14 to 40 mm. Other diameters on request.

STRETCH AT 30% B. L. 2,16% **STRETCH AT B. L.** 3.20%

COLOURS Melange PBO® / Polyester to choose from:



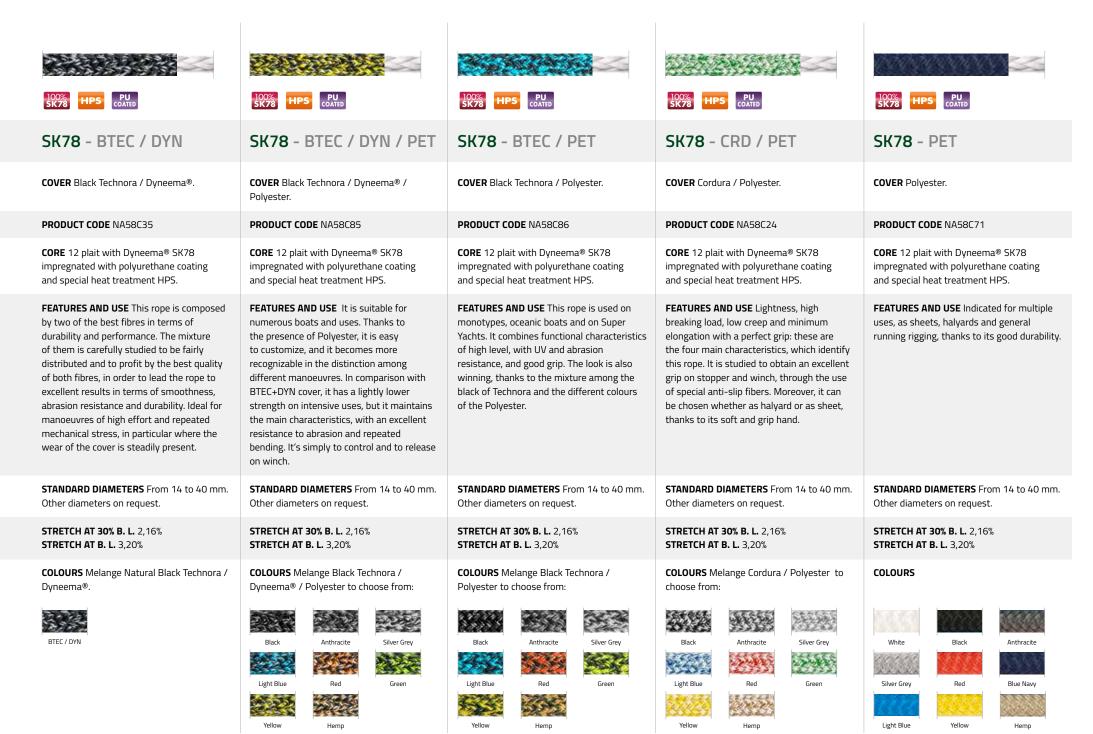






Light Blue







SUPER YACHT LINE CAPTIVE 78

Excellent Flexibility
Round Shape Preservation
High Chafe Resistance

High Strenght Low Elongation Best Captive Performance

ø	FOR ALL COVERS	BTEC/ DYN	BTEC/ DYN/PET	BTEC/ PET	KEV/ DYN/PET	CRD/ PET	PET
DIAMETER	B. L.	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT	WEIGHT
[mm]	[daN]	[g /m]	[g /m]	[g /m]	[g /m]	[g/m]	[g /m]
14	11.025	153,63	152,11	155,15	150,59	150,59	152,11
15	12.579	169,99	168,31	171,67	166,62	166,62	168,31
16	14.868	186,35	184,50	188,19	182,66	182,66	184,50
17	16.590	202,91	200,90	204,92	198,89	198,89	200,90
18	18.690	219,47	217,30	221,65	215,13	215,13	217,30
20	20.895	274,34	271,63	277,06	268,91	268,91	271,63
22	23.100	318,86	315,70	322,01	312,54	312,54	315,70
24	27.300	377,87	374,13	381,61	370,38	370,38	374,13
26	31.815	434,81	430,50	439,11	426,20	426,20	430,50
28	36.750	574,56	568,88	580,25	563,19	563,19	568,88
30	43.050	714,32	707,25	721,40	700,18	700,18	707,25
32	52.500	854,08	845,63	862,54	837,17	837,17	845,63
34	60.900	960,71	951,20	970,22	941,69	941,69	951,20
36	69.300	1083,91	1073,18	1.094,64	1.062,44	1062,44	1073,18
38	77.700	1207,10	1195,15	1.219,05	1.183,20	1183,20	1195,15
40	84.499	1330,30	1317,13	1.343,47	1.303,95	1303,95	1317,13

NOTE: Intermediate diameters on request

NOTE ABOUT BREAKING LOAD AND DIAMETERS The average values shown above are derived from tests taken at Armare laboratory, on properly spliced new ropes, and may change without notice. Other diameters available on request. The static load of the rope must not exceed 20% of Breaking Load shown in the table. Knots may affect the Breaking Load of the rope with reductions of up to 60%. The splicing increases the diameter of the rope of about 1.5 times. The use and exposure to weather conditions, depending from the kind of rope and the time of esposure, can reduce the breaking loads of the ropes.



CAPTIVE 78

Thanks to the cooperation with companies leaders in the production of Captive Winch and the supply to prestigious Super Yachts, Armare has improved and reached high performance levels also in this range of products.

Thousands of meters provided to the most important companies specialized in the "rigging works" and well-known ship yards, prove, more than many words, the steady growth and the care of Armare in the research of new solutions, in order to solve problems linked to this specific use.

Captive Winch Line preserves high Breaking Loads and low elongation thanks to the use of high modulus fibres. Moreover, it holds the essential characteristics necessary to grant the good working of a Captive Winch System like flexibility, a steady shape, no sliding between core and cover, high abrasion resistance and excellent behaviour between sliding and grip on drums. All is included in a performing product, which allows the choice among six different types of covers. Each one has diverse characteristics suitable for different types of winches and yachts, where they will be settled.

CPT78 - BTEC / DYN

COVER Black Technora / Dyneema®.

PRODUCT CODE NA58C35_CW

CORE 12 plait with Dyneema® SK78 impregnated with polyurethane coating and special heat treatment HPS.

FEATURES AND USE This rope is composed by two of the best fibres in terms of durability and performance. The mixture of them is carefully studied to be fairly distributed and to profit by the best quality of both fibres, in order to lead the rope to excellent results in terms of smoothness, abrasion resistance and durability. Ideal for manoeuvres of high effort and repeated mechanical stress, in particular where the wear of the cover is steadily present.

STANDARD DIAMETERS From 14 to 40 mm Other diameters on request.

STRETCH AT 30% B. L. 2,16% **STRETCH AT B. L.** 3.20%

COLOURS Melange Natural Black Technora / Dyneema®.



RTEC / DVN













CPT78 - BTEC / DYN / PET

CPT78 - BTEC / PET

CPT78 - KEV / DYN / PET

CPT78 - CRD / PET

CPT78 - PET

COVER Black Technora / Dyneema® / Polyester.

COVER Black Technora / Polyester.

PRODUCT CODE NA58C86_CW

COVER Kevlar / Dyneema® / Polyester.

COVER Cordura / Polvester.

COVER Polvester.

PRODUCT CODE NA58C85_CW

CORE 12 plait with Dyneema® SK78 impregnated with polyurethane coating PRODUCT CODE NA58C78_CW

PRODUCT CODE NA58C24_CW

PRODUCT CODE NA58C71_CW

CORE 12 plait with Dyneema® SK78 impregnated with polyurethane coating and special heat treatment HPS.

and special heat treatment HPS.

CORE 12 plait with Dyneema® SK78 impregnated with polyurethane coating and special heat treatment HPS.

CORE 12 plait with Dyneema® SK78 impregnated with polyurethane coating and special heat treatment HPS.

CORE 12 plait with Dyneema® SK78 impregnated with polyurethane coating and special heat treatment HPS.

FEATURES AND USE It is suitable for numerous boats and uses. Thanks to the presence of Polyester, it is easy to customize, and it becomes more recognizable in the distinction among different manoeuvres. In comparison with BTEC+DYN cover, it has a lightly lower strength on intensive uses, but it maintains the main characteristics, with an excellent resistance to abrasion and repeated bending. It's simply to control and to release on winch.

FEATURES AND USE This rope is used on monotypes, oceanic boats and on Mega Yachts. It combines functional characteristics of high level, with UV and abrasion resistance, and good grip. The look is also winning, thanks to the mixture among the black of Technora and the different colours of the Polyester.

FEATURES AND USE It preserves similar characteristics as its sister BTEC+DYN+PET, but thanks to the high point of fusion of Kevlar, it is more suitable for high speed manoeuvres and load, where the ropes reach high temperatures. It possesses one of the best grip, but the UV resistance is lower than Black Technora, which is composed by special pigments that protract the life of the rope, despite of the exposure to the UV rays.

FEATURES AND USE Lightness, high breaking load, low creep and minimum elongation with a perfect grip: these are the four main characteristics, which identify this rope. It is studied to obtain an excellent grip on stopper and winch, through the use of special anti-slip fibers. Moreover, it can be chosen whether as halyard or as sheet, thanks to its soft and grip hand.

FEATURES AND USE Indicated for multiple uses, as sheets, halyards and general running rigging, thanks to its good durability.

STANDARD DIAMETERS From 16 to 40 mm Other diameters on request.

STANDARD DIAMETERS From 16 to 40 mm Other diameters on request.

STANDARD DIAMETERS From 16 to 40 mm Other diameters on request.

STANDARD DIAMETERS From 16 to 40 mm Other diameters on request.

COLOURS Melange Cordura / Polyester to

STANDARD DIAMETERS From 16 to 40 mm Other diameters on request.

STRETCH AT 30% B. L. 2,16%

STRETCH AT B. L. 3.20%

STRETCH AT 30% B. L. 2,16% **STRETCH AT B. L. 3.20%**

STRETCH AT 30% B. L. 2.16% **STRETCH AT B. L. 3.20%**

STRETCH AT 30% B. L. 2,16% **STRETCH AT B. L. 3.20%**

STRETCH AT 30% B. L. 2,16% **STRETCH AT B. L.** 3.20%

COLOURS Melange Black Technora / Dyneema® / Polyester to choose from:



COLOURS Melange Black Technora / Polyester to choose from:



COLOURS Melange Kevlar / Dyneema® / Polyester to choose from:





choose from:

Light Blue

Yellow





COLOURS

Light Blue

















Storm Line costumized handcraft finishing

The great experience on Super-Yacht mooring lines has taken Armare to a leading position on the market. Our strength is the possibility to customize every single particular, e.g. diameters, colours, lengths, finishing ecc. The result is an exclusive rope with distinctive and prestigious elements.

Available manifactures

- Splicing on stainless-steel thimble
- Splicing with loop of every size
- Handmade leather finishing
- Possibility of embroideries on every type of protection

Types of splicing and protections

All the finishes are available on the complete range of mooring lines



Splicing on S.S. Thimble

Spliced loop



Splicing on S.S. Thimble with leather pant







Spliced loop with leather protection and pant

STANDARD COLOURS





Red

SPECIAL COLOURS









Bordeaux

AVAILABLE LEATHERS





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SUPER YACHT MOORING ROPES COMPARATIVE TABLE

Ø	SECUR LINE		SQUARE	LINE PP		M LINE .US	STORI	M LINE	ROUN	D LINE	SQUAF	RE LINE
DIAMETER	B. L.	WEIGHT	B. L.	WEIGHT	B. L.	WEIGHT	B. L.	WEIGHT	B. L.	WEIGHT	B. L.	WEIGHT
[mm]	[daN]	[g /m]	[daN]	[g /m]	[daN]	[g /m]	[daN]	[g /m]	[daN]	[g /m]	[daN]	[g /m]
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	2.000	46	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	10.000	60	-	-	-	-	2.650	68	-	-	1.600	71
11	-	-	-	-	-	-	-	-	-	-	-	-
12	12.500	80	1.560	56	-	-	3.500	97	-	-	2.100	92
14	15.000	96	2.000	78	-	-	4.200	134	-	-	2.900	128
16	18.000	110	2.500	92	-	-	4.900	144	4.160	170	3.500	152
18	-	-	3.200	115	-	-	5.400	188	5.018	195	4.100	170
20	23.000	147	4.000	160	18.200	239	8.500	288	5.460	240	4.500	225
22	-	-	5.000	178	24.400	305	11.600	365	6.045	270	5.000	255
24	28.000	192	5.500	214	30.000	366	13.500	441	6.890	350	5.700	290
26	-	-	-	-	37.000	425	14.600	510	8.099	421	6.500	360
28	34.000	230	7.000	280	45.000	477	18.500	575	10.465	550	8.400	380
30	-	-	-	-	52.000	608	20.000	640	11.648	630	9.650	470
32	39.000	250	9.500	365	61.000	740	23.600	890	12.350	710	10.870	560
34	-	-	-	-	70.000	838	-	-	-	-	-	-
36	45.000	300	13.000	471	79.000	937	25.500	1130	15.600	850	13.700	640
38	-	-	-	-	88.000	999	-	-	-	-	-	-
40	50.000	350	17.000	525	99.500	1062	31.000	1.280	17.500	1.160	15.580	830
44	55.000	400	19.000	585	-	-	36.000	1.470	20.000	1.450	19.400	1.050
48	60.000	470	22.500	645	-	-	40.800	1.760	-	-	23.300	1.200
52	-	-	24.000	705	-	-	49.900	2.050	-	-	28.100	1.320

NOTE ABOUT BREAKING LOAD AND DIAMETERS The average values shown above are derived from tests taken at Armare laboratory, on properly spliced new ropes, and may change without notice. Other diameters available on request. The static load of the rope must not exceed 20% of Breaking Load shown in the table. Knots may affect the Breaking Load of the rope with reductions of up to 60%. The splicing increases the diameter of the rope of about 1.5 times. The use and exposure to weather conditions, depending from the kind of rope and the time of esposure, can reduce the breaking loads of the ropes.



FLOATING DYNEEMA®

SECUR LINE

PRODUCT CODE NO37

CONSTRUCTION

Balanced twist 8 strand braid made with 100% Dyneema® SK78 and PU Coating.

FEATURES AND USE

Emergency anchoring and mooring rope, long mooring line from boat to land, towing line. Made of 100% Dyneema® SK78. High Breaking Load, light, floating and low elongation, almost zero water absorption, high visibility of the rope and high resistance to abrasion and cut.

STANDARD DIAMETERS From 10 to 48 mm.





STANDARD COLOURS



















SQUARE LINE PP

STORM LINE PLUS

STORM LINE

PRODUCT CODE NO20

ROUND LINE

PRODUCT CODE NA40

SQUARE LINE

PRODUCT CODE NA43

CONSTRUCTION

PRODUCT CODE NA90_SLP

CONSTRUCTION

CONSTRUCTION

CONSTRUCTION

PRODUCT CODE NA41

Strand braid in H.T. Polypropylene with UV treatment.

Balanced twist Dyneema® braided core, Polyester cover.

Balanced twist Polyester braided core, Polyester cover.

12 strand braid in Polyester.

8 strand braid in Polyester.

FEATURES AND USE

Multi-use floating line, for long moorings and towing.

FEATURES AND USE

CONSTRUCTION

Storm Line Plus brings a significant improvement to the lives of the crew, ensuring extreme safety ropes, thanks to the very high breaking loads and small diameters. Furthermore, the weight is halved, in comparison with ropes with equal load in Polyester/Nylon, thanks to the core in Dyneema®, which also has a low water absorption. The choice of Storm Line Plus for the mooring of your boat provides an economic benefit over time, thanks to the extraordinary durability.

FEATURES AND USE

Ideal for Maxi Yachts but also for emergency or long moorings of small and medium size

FEATURES AND USE

For the mooring of small boats to maxi yachts. Always smooth, even after prolonged use. Easy to splice.

FEATURES AND USE

For the mooring of all types of boats, up to maxi yachts. Anchoring, temporary and long moorings of medium and small boats.

STANDARD DIAMETERS From 12 to 44 mm.

STANDARD DIAMETERS

STANDARD COLOURS

From 20 to 40 mm.

STANDARD DIAMETERS From 12 to 52 mm.

STANDARD DIAMETERS From 16 to 44 mm.

STANDARD DIAMETERS From 10 to 52 mm.

STANDARD COLOURS























STANDARD COLOURS

SPECIAL COLOURS

Bordeaux







SPECIAL COLOURS





Light Blue

SPECIAL COLOURS

















White





Bordeaux







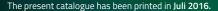
Bordeaux

English Green



Would you like to know which of our Dealers is the closest to you?

Contact us on info@armare.it or call us at +39 0431 65575



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