

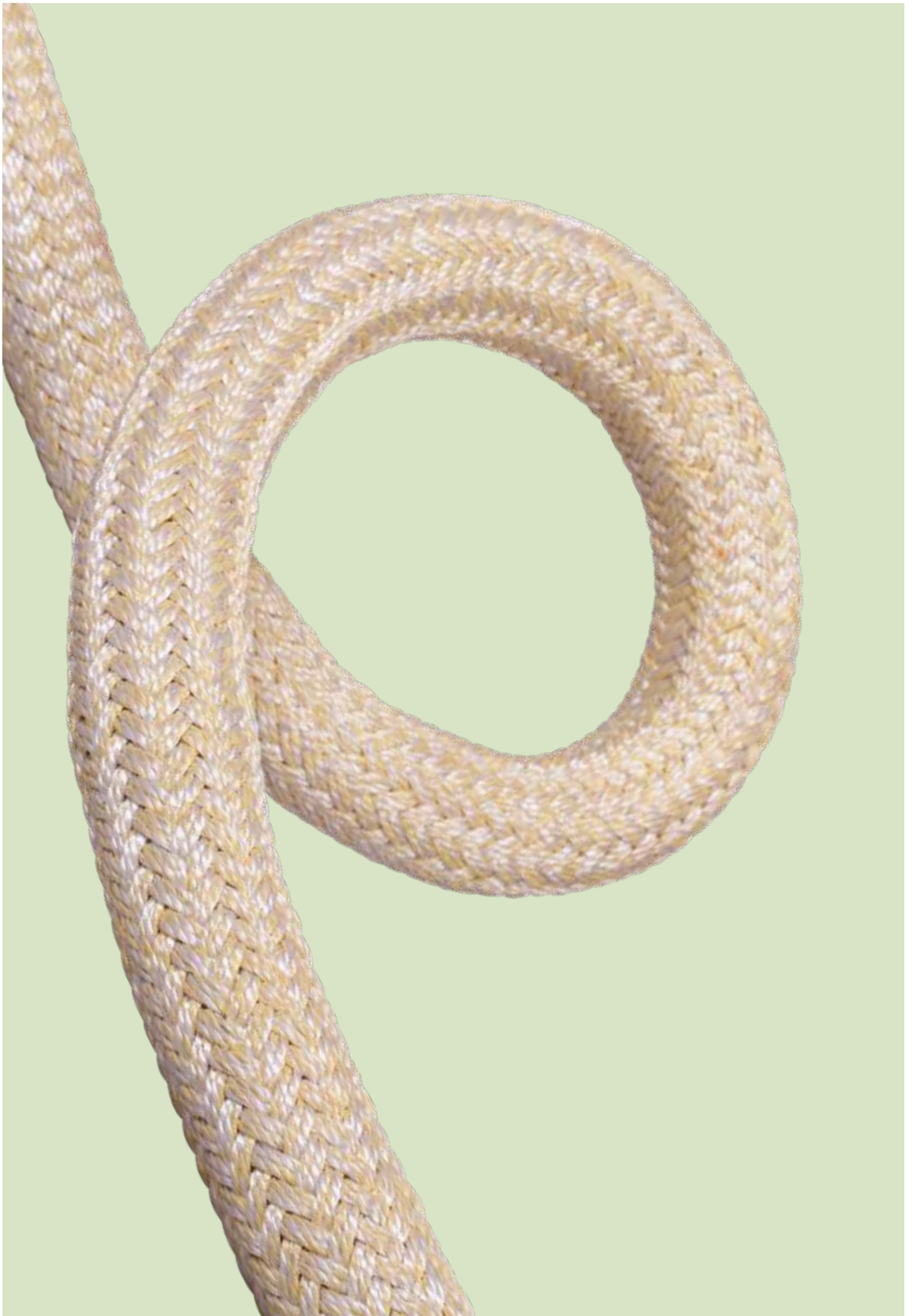


**KAYA
ROPES**

COMMERCIAL MARINE ROPES

2019 | ENG

Upgrade Your Lines



KAYA COMPANIES

www.kayacompanies.com

Kaya Companies;

A leader in its field today, Kaya Group began business in the 1980's as Kaya Construction. Kaya Group is now preparing to celebrate its 40th year of operation. Kaya Group concentrates its knowledge and experience in four main areas of activity; the production of technical ropes, industrial work safety and work at height, health and safety at work training and consulting services. Since being fully aware of the dimension of social responsibility attached to the sector, the company obtains national and international certificates for all products that are developed and manufactured. By providing education and consultation services concerning the correct use of its products, the Kaya Group has gained the knowledge, experience and level of competence that have given the company the confidence and resources to be able to make new advances from a sound base. With its 40- year experience, the Kaya Group is the largest organization in the sector. In 2010, with new products, services and investments, the company is firmly on the path towards becoming an important brand in the international market.

Our Vision;

To make Kaya the undisputed world's strongest, most prestigious and trusted brand in its sector.

Mission Statement;

Our mission is to conduct research and development based on accurate analysis of needs in the sector and thereby develop new products; to employ modern machinery and a competent workforce in the manufacture of world-class, high quality goods; to provide training and consulting services to create knowledgeable workers and managers and help establish a culture of work safety in Turkey; and to provide complete solutions Via our integrated services.

Company Philosophy;

Based on the value we place on human life, our goal is to design products that will safeguard human life on the job, to manufacture such products and to raise awareness about work safety by training workers and managers and providing consultation services in this regard.

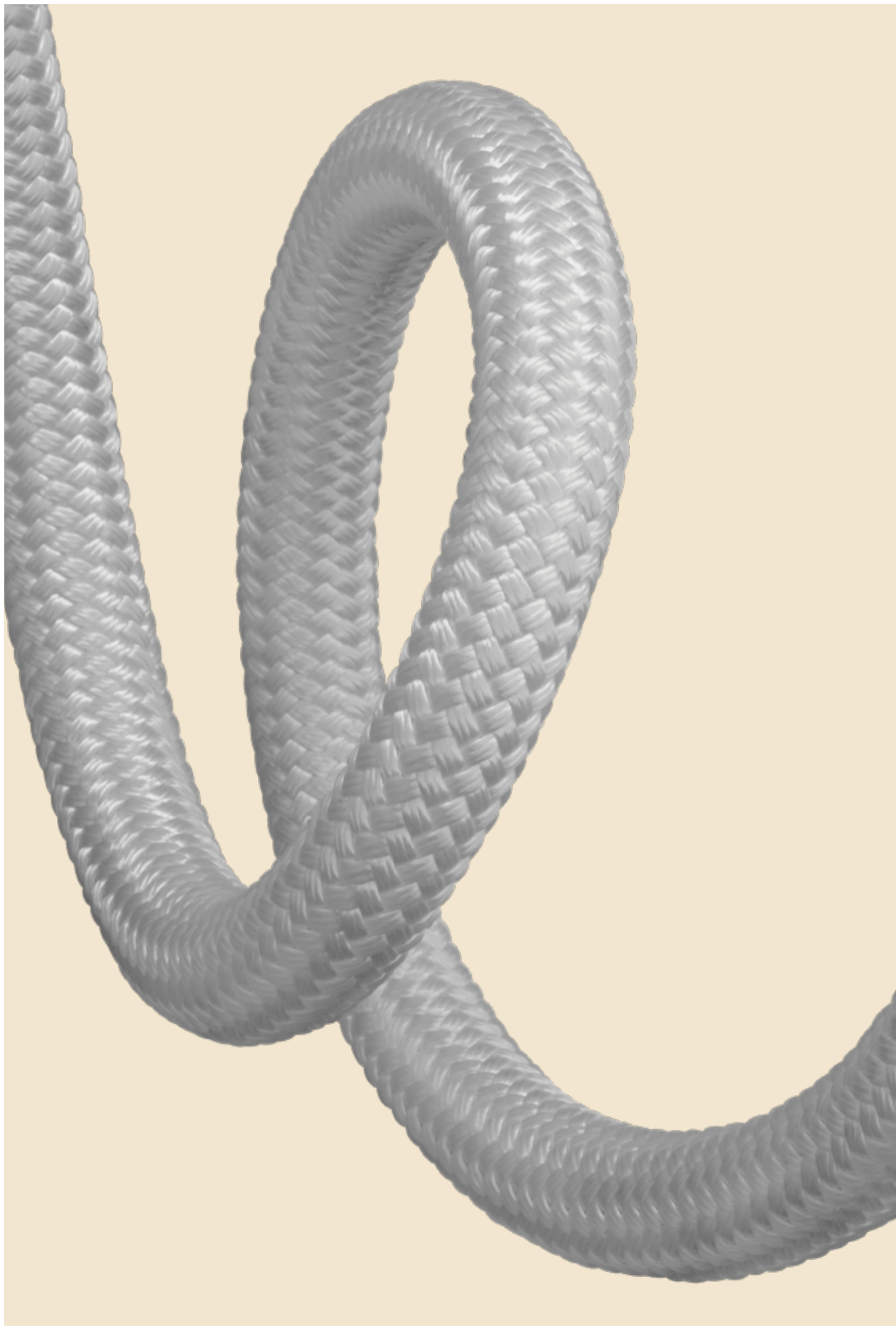
KAYA ROPES | KAYA SAFETY | KAYA TRAINING | KAYA CONSULTING | KAYA ADVENTURE | KAYA LIFTING
KAYA DEFENCE | KAYA CONSTRUCTION | KAYA SPORT | KAYA ARCHITECTURE | KAYA ACADEMY





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HIGH
PERFORMANCE
ROPES

CONVENTIONAL
ROPES



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PENDANTS

SHOCK
LINES



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SHACKLES

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PROTECTIONS



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DYNE K®

APPLICATIONS

- Vessel Primary Mooring Line
- General Working Line
- Tug Pendant
- Tug Main Tow Line
- Tug Messenger Line
- Davit Rope
- ETS Rope
- Lifting Sling (Static)

BENEFITS / FEATURES

- Superior Abrasion Resistance
- Excellent Breaking Load
- Buoyant
- Durable
- Very Low Stretch
- Lightweight
- Easy to Splice
- Does not Kink

SPECIFICATIONS

Material	:	Coated Dyneema® SK 78
Specific Gravity	:	0,97 kg/dm ³
Construction	:	12 Strand Braided
UV Resistance	:	Excellent
Chemical Resistance	:	Excellent
Melting Point	:	147°C
Critical Temperature	:	65°C
Working Stretch	:	<1,5%
Fiber Water Absorption	:	None
Wet Abrasion	:	Excellent
Dry Abrasion	:	Excellent
Standard	:	ISO 10325
Length	:	Upon Request

Other Colours & Larger Diameters Upon Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf) Unspliced	Min. B.Load (kgf) Spliced	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs) Unspliced	Min. B.Load (lbs) Spliced
16	15,10	26.520	23.700	5/8"	10,15	58.344	52.140
18	19,00	31.620	28.500	3/4"	12,77	69.564	62.700
20	23,20	38.760	34.000	13/16"	15,59	85.272	74.800
22	28,10	45.900	40.800	7/8"	18,88	100.980	89.760
24	33,10	53.000	47.940	1"	22,24	116.600	105.468
26	38,40	61.200	55.080	1-1/16"	25,80	134.640	121.176
28	44,50	69.360	62.220	1-1/8"	29,90	152.592	136.884
30	50,60	78.540	70.380	1-1/4"	34,00	172.788	154.836
32	57,50	88.740	79.560	1-5/16"	38,64	195.228	175.032
34	64,80	97.920	87.720	1 3/8"	43,55	215.424	192.984
36	72,00	106.080	95.880	1-1/2"	48,38	233.376	210.936
38	79,80	118.320	106.080	1-9/16"	53,63	260.304	233.376
40	88,10	128.520	115.260	1-5/8"	59,20	282.744	253.572
42	97,00	138.720	124.440	1-11/16"	65,18	305.184	273.768
44	106,00	148.920	133.620	1-3/4"	71,23	327.624	293.964
48	125,00	173.400	156.060	2"	84,00	381.480	343.332
50	135,50	187.170	168.300	2-1/16"	91,06	411.774	370.260
52	146,00	201.000	180.540	2-1/8"	98,11	442.200	397.188
56	169,00	230.520	207.060	2-1/4"	113,57	507.144	455.532
60	193,00	258.060	232.560	2-1/2"	129,70	567.732	511.632
64	220,00	289.680	261.120	2-5/8"	147,84	637.296	574.464
68	248,00	323.340	290.700	2-3/4"	166,66	711.348	639.540
72	278,00	359.040	323.340	3"	186,82	789.888	711.348
76	309,00	396.780	357.000	3-1/8"	207,65	872.916	785.400
80	343,00	438.600	394.740	3-1/4"	230,50	964.920	868.428
88	417,00	530.400	477.360	3-5/8"	280,22	1.166.880	1.050.192
96	497,00	630.360	567.120	4"	333,98	1.386.792	1.247.664

Spliced Break Load (All tests are in Accordance with ISO 2307)



DYNE K[®] SBF

APPLICATIONS

Davit Rope
Lifting Sling (Dynamic)

BENEFITS / FEATURES

Superior Bending Fatigue (SBF)
Excellent Breaking Load
Buoyant
Durable
Very Low Stretch
Lightweight
Easy to Splice
Does not Kink

SPECIFICATIONS

Material	:	Coated Dyneema [®] SK 78
Specific Gravity	:	0,97 kg/dm ³
Construction	:	12 Strand Braided
UV Resistance	:	Excellent
Chemical Resistance	:	Excellent
Melting Point	:	147°C
Critical Temperature	:	65°C
Working Stretch	:	<1,5%
Fiber Water Absorption	:	None
Wet Abrasion	:	Excellent
Dry Abrasion	:	Excellent
Standard	:	ISO 10325
Length	:	Upon Request

Other Colours & Larger Diameters Upon Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf) Unspliced	Min. B.Load (kgf) Spliced	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs) Unspliced	Min. B.Load (lbs) Spliced
16	15,10	26.520	23.700	5/8"	10,15	58.344	52.140
18	19,00	31.620	28.500	3/4"	12,77	69.564	62.700
20	23,20	38.760	34.000	13/16"	15,59	85.272	74.800
22	28,10	45.900	40.800	7/8"	18,88	100.980	89.760
24	33,10	53.000	47.940	1"	22,24	116.600	105.468
26	38,40	61.200	55.080	1-1/16"	25,80	134.640	121.176
28	44,50	69.360	62.220	1-1/8"	29,90	152.592	136.884
30	50,60	78.540	70.380	1-1/4"	34,00	172.788	154.836
32	57,50	88.740	79.560	1-5/16"	38,64	195.228	175.032
34	64,80	97.920	87.720	1 3/8"	43,55	215.424	192.984
36	72,00	106.080	95.880	1-1/2"	48,38	233.376	210.936
38	79,80	118.320	106.080	1-9/16"	53,63	260.304	233.376
40	88,10	128.520	115.260	1-5/8"	59,20	282.744	253.572
42	97,00	138.720	124.440	1-11/16"	65,18	305.184	273.768
44	106,00	148.920	133.620	1-3/4"	71,23	327.624	293.964
48	125,00	173.400	156.060	2"	84,00	381.480	343.332
50	135,50	187.170	168.300	2-1/16"	91,06	411.774	370.260
52	146,00	201.000	180.540	2-1/8"	98,11	442.200	397.188
56	169,00	230.520	207.060	2-1/4"	113,57	507.144	455.532
60	193,00	258.060	232.560	2-1/2"	129,70	567.732	511.632
64	220,00	289.680	261.120	2-5/8"	147,84	637.296	574.464
68	248,00	323.340	290.700	2-3/4"	166,66	711.348	639.540
72	278,00	359.040	323.340	3"	186,82	789.888	711.348
76	309,00	396.780	357.000	3-1/8"	207,65	872.916	785.400
80	343,00	438.600	394.740	3-1/4"	230,50	964.920	868.428
88	417,00	530.400	477.360	3-5/8"	280,22	1.166.880	1.050.192
96	497,00	630.360	567.120	4"	333,98	1.386.792	1.247.664

Spliced Break Load (All tests are in Accordance with ISO 2307)



DYNE K[®] SBF ▲ HIGH PERFORMANCE ROPES



DYNE STRONG®

APPLICATIONS

Vessel Primary Mooring Line
 Tug Main Tow Line
 Tug Pendant
 Salvage Rope

BENEFITS / FEATURES

Excellent Breaking Load
 Durable
 Very Low Stretch
 Firm and Round
 Does not Kink



SPECIFICATIONS

Material	:	Cover: HT Polyester Fiber Core: Coated Dyneema® SK 78
Specific Gravity	:	1,00-1,20 kg/dm ³
Construction	:	Cover: 24-32 Plaited Core: 12 Plaited
UV Resistance	:	Excellent
Chemical Resistance	:	Good
Melting Point	:	147-256°C
Critical Temperature	:	65°C
Working Stretch	:	<1%
Fiber Water Absorption	:	Approx. %0-1
Wet Abrasion	:	Good
Dry Abrasion	:	Good
Standard	:	ISO 10325
Length	:	Upon Request

Other Colours & Larger Diameters Upon Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)		DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)	
		Unspliced	Spliced			Unspliced	Spliced
20	25,23	27.640	24.870	13/16"	16,95	60.808	54.714
22	31,26	34.780	31.300	7/8"	21,01	76.516	68.860
24	36,84	41.000	36.900	1"	24,75	90.200	81.180
26	41,25	48.000	43.200	1-1/16"	27,72	105.600	95.040
28	48,85	56.000	50.400	1-1/8"	32,83	123.200	110.880
30	56,46	65.000	58.500	1-1/8"	37,94	143.000	128.700
32	64,07	75.000	67.500	1-5/16"	43,06	165.000	148.500
34	71,68	84.000	75.600	1-3/8"	48,17	184.800	166.320
36	79,29	93.000	83.700	1-1/2"	53,28	204.600	184.140
38	86,90	103.000	92.700	1-9/16"	58,40	226.600	203.940
40	97,71	116.280	104.650	1-5/8"	65,66	255.816	230.230
42	105,32	128.000	115.200	1-11/16"	70,77	281.600	253.440
44	117,34	140.760	126.680	1-3/4"	78,85	309.672	278.696
48	140,16	164.220	147.790	2"	94,19	361.284	325.138
50	152,18	178.170	160.360	2-1/16"	102,27	391.974	352.792
52	164,20	195.840	176.250	2-1/8"	110,34	430.848	387.750
56	187,03	223.380	201.040	2-1/4"	125,68	491.436	442.288
60	211,06	257.040	231.330	2-1/2"	141,83	565.488	508.926

Spliced Break Load (All tests are in Accordance with ISO 2307)



DYNE STRONG® D-TIGHT

APPLICATIONS

Vessel Primary Mooring Line
 Tug Main Tow Line
 Tug Pendant
 Salvage Rope
 Trawl/Bridle Line

BENEFITS / FEATURES

Superior Abrasion Resistance
 Excellent Breaking Load
 Durable
 Very Low Stretch
 Lightweight
 Does not Kink



SPECIFICATIONS

Material	:	Cover: Coated Dyneema® Core: Coated Dyneema® SK 78
Specific Gravity	:	0,97 kg/dm³
Construction	:	Cover: 24-32 Plaited Core: 12 Plaited
UV Resistance	:	Excellent
Chemical Resistance	:	Excellent
Melting Point	:	147°C
Critical Temperature	:	65°C
Working Stretch	:	<1%
Fiber Water Absorption	:	None
Wet Abrasion	:	Excellent
Dry Abrasion	:	Excellent
Standard	:	ISO 10325
Length	:	Upon Request

Other Colours & Larger Diameters Upon Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf) Unspliced	Min. B.Load (kgf) Spliced	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs) Unspliced	Min. B.Load (lbs) Spliced
20	23,35	27.640	24.870	13/16"	15,69	60.808	54.714
22	28,76	34.780	31.300	7/8"	19,33	76.516	68.860
24	33,39	41.000	36.900	1"	22,44	90.200	81.180
26	40,05	48.000	43.200	1-1/16"	26,91	105.600	95.040
28	46,71	56.000	50.400	1-1/8"	31,39	123.200	110.880
30	53,36	65.000	58.500	1-1/8"	35,86	143.000	128.700
32	60,02	75.000	67.500	1-5/16"	40,34	165.000	148.500
34	66,68	84.000	75.600	1-3/8"	44,81	184.800	166.320
36	73,34	93.000	83.700	1-1/2"	49,28	204.600	184.140
38	82,25	103.000	92.700	1-9/16"	55,27	226.600	203.940
40	91,16	116.280	104.650	1-5/8"	61,26	255.816	230.230
42	97,82	128.000	115.200	1-11/16"	65,73	281.600	253.440
44	111,14	140.760	126.680	1-3/4"	74,68	309.672	278.696
48	131,11	164.220	147.790	2"	88,11	361.284	325.138
50	142,18	178.170	160.360	2-1/16"	95,55	391.974	352.792
52	153,25	195.840	176.250	2-1/8"	102,98	430.848	387.750
56	177,73	223.380	201.040	2-1/4"	119,43	491.436	442.288
60	204,36	257.040	231.330	2-1/2"	137,33	565.488	508.926

Spliced Break Load (All tests are in Accordance with ISO 2307)

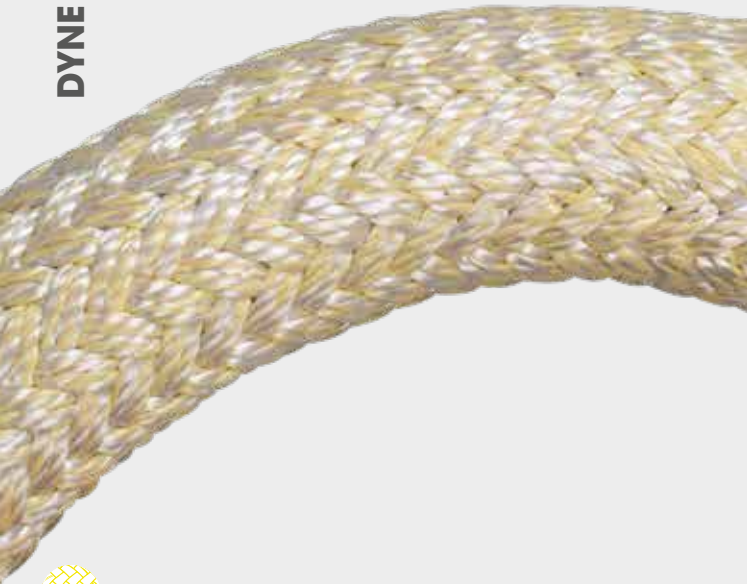


DYNE STRONG® D-TIGHT ▲ HIGH PERFORMANCE ROPES





DYNE STRONG® MIX AP ▲ HIGH PERFORMANCE ROPES



DYNE STRONG® MIX AP

APPLICATIONS

Vessel Primary Mooring Line
Tug Main Tow Line
Tug Pendant
Salvage Rope

BENEFITS / FEATURES

Excellent Breaking Load
Excellent Abrasion Resistance
Durable
Very Low Stretch
Firm and Round
Does not Kink



SPECIFICATIONS

Material	:	Cover: %50 Aramid Fiber %50 HT Polyester Fiber Core: Coated Dyneema® SK 78
Specific Gravity	:	1,00-1,20 kg/dm ³
Construction	:	Cover: 24-32 Plaited Core: 12 Plaited
UV Resistance	:	Poor
Chemical Resistance	:	Excellent
Melting Point	:	147-256°C
Critical Temperature	:	65°C
Working Stretch	:	<1%
Fiber Water Absorption	:	Approx. %1-2
Wet Abrasion	:	Excellent
Dry Abrasion	:	Excellent
Standard	:	ISO 10325
Length	:	Upon Request

Other Colours & Larger Diameters Upon Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf) Unspliced	Min. B.Load (kgf) Spliced	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs) Unspliced	Min. B.Load (lbs) Spliced
30	56,20	65.000	58.500	1-1/8"	37,77	143.000	128.700
32	63,96	75.000	67.500	1-5/16"	42,98	165.000	148.500
34	71,73	84.000	75.600	1-3/8"	48,20	184.800	166.320
36	77,87	93.000	83.700	1-1/2"	52,33	204.600	184.140
38	83,90	103.000	92.700	1-9/16"	56,38	226.600	203.940
40	95,14	116.280	104.650	1-5/8"	63,93	255.816	230.230
42	102,90	128.000	115.200	1-11/16"	69,15	281.600	253.440
44	116,81	140.760	126.680	1-3/4"	78,50	309.672	278.696
48	138,49	164.220	147.790	2"	93,06	361.284	325.138

Spliced Break Load (All tests are in Accordance with ISO 2307)



NAVY D PRO[®] MIX HT

APPLICATIONS

Vessel Primary Mooring Line
Tug Main Tow Line
Tug Pendant
Salvage Rope
Trawl/Bridle Line

BENEFITS / FEATURES

Superior Abrasion Resistance
Excellent Breaking Load
Durable
Very Low Stretch
Lightweight
Does not Kink

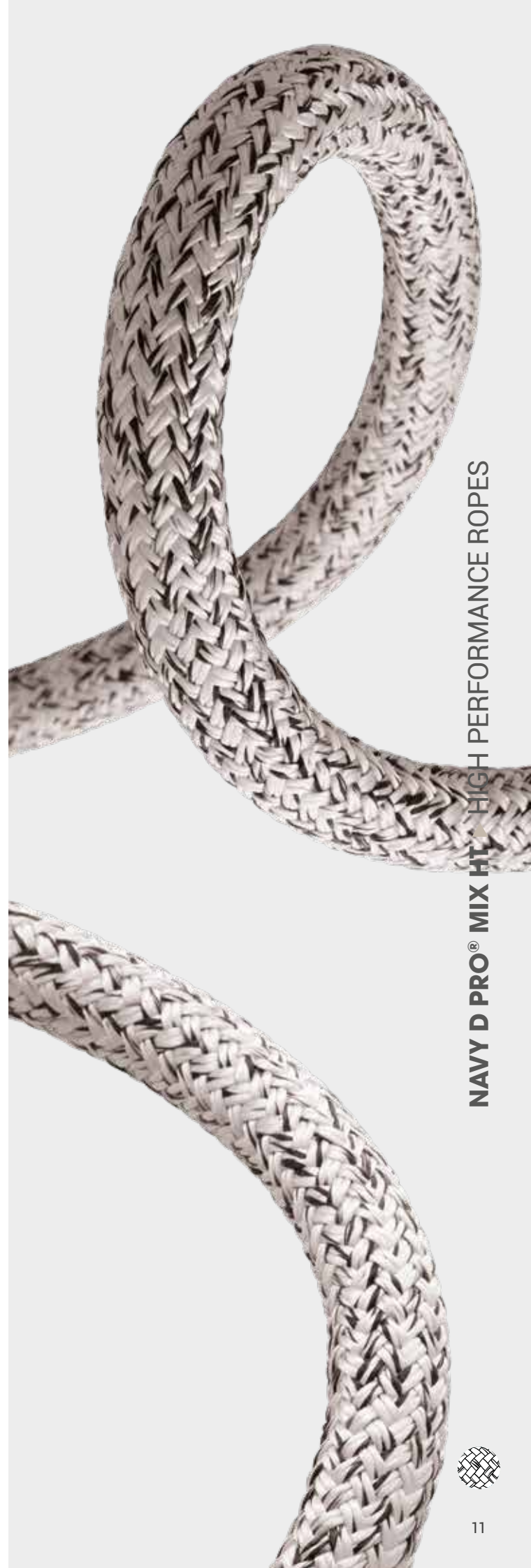
SPECIFICATIONS

Material	:	Cover: Blended Technora [®] Fiber - UHMWPE Fiber Core: Coated Dyneema [®] SK 78
Specific Gravity	:	0,99-1,20 kg/dm ³
Construction	:	Cover: 24-32 Plaited Core: 12 Plaited
UV Resistance	:	Good
Chemical Resistance	:	Excellent
Melting Point	:	147°C
Critical Temperature	:	65°C
Working Stretch	:	<1,5%
Fiber Water Absorption	:	Approx. %0-1
Wet Abrasion	:	Excellent
Dry Abrasion	:	Excellent
Standard	:	ISO 10325
Length	:	Upon Request

Other Colours & Larger Diameters Upon Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf) Unspliced	Min. B.Load (kgf) Spliced	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs) Unspliced	Min. B.Load (lbs) Spliced
20	23,40	27.640	24.870	13/16"	15,72	60.808	54.714
22	27,99	34.780	31.300	7/8"	18,81	76.516	68.860
24	34,21	41.000	36.900	1"	22,99	90.200	81.180
28	45,85	56.000	50.400	1-1/8"	30,81	123.200	110.880
32	60,73	75.000	67.500	1-5/16"	40,81	165.000	148.500

Spliced Break Load (All tests are in Accordance with ISO 2307)



NAVY D PRO[®] MIX HT HIGH PERFORMANCE ROPES



Technora





FORCE K® HIGH PERFORMANCE ROPES



FORCE K®

APPLICATIONS

Vessel Primary Mooring Line
 General Working Line
 Tug Pendants
 Tug Main Tow Line
 Tug Messenger Line
 Davit Rope
 ETS Rope
 Lifting Sling (Static)

BENEFITS / FEATURES

Superior Abrasion Resistance
 Excellent Breaking Load
 Buoyant
 Durable
 Very Low Stretch
 Lightweight
 Easy to Splice
 Does not Kink

SPECIFICATIONS

Material	:	Coated UHMWPE Fiber
Specific Gravity	:	0,97 kg/dm ³
Construction	:	12 Strand Braided
UV Resistance	:	Excellent
Chemical Resistance	:	Excellent
Melting Point	:	147°C
Critical Temperature	:	65°C
Working Stretch	:	<1,5%
Fiber Water Absorption	:	None
Wet Abrasion	:	Excellent
Dry Abrasion	:	Excellent
Standard	:	-
Length	:	Upon Request

Other Colours & Larger Diameters Upon Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf) Unspliced	Min. B.Load (kgf) Spliced	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs) Unspliced	Min. B.Load (lbs) Spliced
16	15,10	25.194	22.515	5/8"	10,15	55.427	49.533
18	19,00	30.039	27.075	3/4"	12,77	66.086	59.565
20	23,20	36.822	32.300	13/16"	15,59	81.008	71.060
22	28,10	43.605	38.760	7/8"	18,88	95.931	85.272
24	33,10	50.350	45.543	1"	22,24	110.770	100.195
26	38,40	58.140	52.326	1-1/16"	25,80	127.908	115.117
28	44,50	65.892	59.109	1-1/8"	29,90	144.962	130.040
30	50,60	74.613	66.861	1-1/4"	34,00	164.149	147.094
32	57,50	84.303	75.582	1-5/16"	38,64	185.467	166.280
34	64,80	93.024	83.334	1 3/8"	43,55	204.653	183.335
36	72,00	100.776	91.086	1-1/2"	48,38	221.707	200.389
38	79,80	112.404	100.776	1-9/16"	53,63	247.289	221.707
40	88,10	122.094	109.497	1-5/8"	59,20	268.607	240.893
42	97,00	131.784	118.218	1-11/16"	65,18	289.925	260.080
44	106,00	141.474	126.939	1-3/4"	71,23	311.243	279.266
48	125,00	164.730	148.257	2"	84,00	362.406	326.165
50	135,50	177.812	159.885	2-1/16"	91,06	391.185	351.747
52	146,00	190.950	171.513	2-1/8"	98,11	420.090	377.329
56	169,00	218.994	196.707	2-1/4"	113,57	481.787	432.755
60	193,00	245.157	220.932	2-1/2"	129,70	539.345	486.050
64	220,00	275.196	248.064	2-5/8"	147,84	605.431	545.741
68	248,00	307.173	276.165	2-3/4"	166,66	675.781	607.563
72	278,00	341.088	307.173	3"	186,82	750.394	675.781
76	309,00	376.941	339.150	3-1/8"	207,65	829.270	746.130
80	343,00	416.670	375.003	3-1/4"	230,50	916.674	825.007
88	417,00	503.880	453.492	3-5/8"	280,22	1.108.536	997.682
96	497,00	567.324	538.764	4"	333,98	1.248.113	1.185.281

Spliced Break Load (All tests are in Accordance with ISO 2307)



FORCE STRONG®

APPLICATIONS

Vessel Primary Mooring Line
Tug Main Tow Line
Tug Pendant
Salvage Rope

BENEFITS / FEATURES

Excellent Breaking Load
Durable
Very Low Stretch
Firm and Round
Does not Kink



SPECIFICATIONS

Material	:	Cover: HT Polyester Fiber Core: Coated UHMWPE Fiber
Specific Gravity	:	1,00-1,20 kg/dm ³
Construction	:	Cover: 24-32 Plaited Core: 12 Plaited
UV Resistance	:	Excellent
Chemical Resistance	:	Good
Melting Point	:	147-256°C
Critical Temperature	:	65°C
Working Stretch	:	<1%
Fiber Water Absorption	:	Approx. %0-1
Wet Abrasion	:	Good
Dry Abrasion	:	Good
Standard	:	-
Length	:	Upon Request

Other Coloursarger Diameters Upon Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf) Unspliced	Min. B.Load (kgf) Spliced	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs) Unspliced	Min. B.Load (lbs) Spliced
20	25,23	26.258	23.627	13/16"	16,95	57.768	51.978
22	31,26	33.041	29.735	7/8"	21,01	72.690	65.417
24	36,84	38.950	35.055	1"	24,75	85.690	77.121
26	41,25	45.600	41.040	1-1/16"	27,72	100.320	90.288
28	48,85	53.200	47.880	1-1/8"	32,83	117.040	105.336
30	56,46	61.750	55.575	1-1/8"	37,94	135.850	122.265
32	64,07	71.250	64.125	1-5/16"	43,06	156.750	141.075
34	71,68	79.800	71.820	1-3/8"	48,17	175.560	158.004
36	79,29	88.350	79.515	1-1/2"	53,28	194.370	174.933
38	86,90	97.850	88.065	1-9/16"	58,40	215.270	193.743
40	97,71	110.466	99.418	1-5/8"	65,66	243.025	218.719
42	105,32	121.600	109.440	1-11/16"	70,77	267.520	240.768
44	117,34	133.722	120.346	1-3/4"	78,85	294.188	264.761
48	140,16	156.009	140.401	2"	94,19	343.220	308.881
50	152,18	169.262	152.342	2-1/16"	102,27	372.375	335.152
52	164,20	186.048	167.438	2-1/8"	110,34	409.306	368.363
56	187,03	212.211	190.988	2-1/4"	125,68	466.864	420.174
60	211,06	244.188	219.764	2-1/2"	141,83	537.214	483.480

Spliced Break Load (All tests are in Accordance with ISO 2307)



FORCE STRONG® ▲ HIGH PERFORMANCE ROPES





FORCE STRONG® D-TIGHT ▲ HIGH PERFORMANCE ROPES



FORCE STRONG® D-TIGHT

APPLICATIONS

Vessel Primary Mooring Line
 Tug Main Tow Line
 Tug Pendant
 Salvage Rope
 Trawl/Bridle Line

BENEFITS / FEATURES

Superior Abrasion Resistance
 Excellent Breaking Load
 Durable
 Very Low Stretch
 Lightweight
 Does not Kink

SPECIFICATIONS

Material	:	Cover: Coated UHMWPE Fiber Core: Coated UHMWPE Fiber
Specific Gravity	:	0,97 kg/dm ³
Construction	:	Cover: 24-32 Plaited Core: 12 Plaited
UV Resistance	:	Excellent
Chemical Resistance	:	Excellent
Melting Point	:	147°C
Critical Temperature	:	65°C
Working Stretch	:	<1%
Fiber Water Absorption	:	None
Wet Abrasion	:	Excellent
Dry Abrasion	:	Excellent
Standard	:	-
Length	:	Upon Request

Other Colours & Larger Diameters Upon Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf) Unspliced	Min. B.Load (kgf) Spliced	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs) Unspliced	Min. B.Load (lbs) Spliced
20	23,35	26.258	23.627	13/16"	15,69	57.768	51.978
22	28,76	33.041	29.735	7/8"	19,33	72.690	65.417
24	33,39	38.950	35.055	1"	22,44	85.690	77.121
26	40,05	45.600	41.040	1-1/16"	26,91	100.320	90.288
28	46,71	53.200	47.880	1-1/8"	31,39	117.040	105.336
30	53,36	61.750	55.575	1-1/8"	35,86	135.850	122.265
32	60,02	71.250	64.125	1-5/16"	40,34	156.750	141.075
34	66,68	79.800	71.820	1-3/8"	44,81	175.560	158.004
36	73,34	88.350	79.515	1-1/2"	49,28	194.370	174.933
38	82,25	97.850	88.065	1-9/16"	55,27	215.270	193.743
40	91,16	110.466	99.418	1-5/8"	61,26	243.025	218.719
42	97,82	121.600	109.440	1-11/16"	65,73	267.520	240.768
44	111,14	133.722	120.346	1-3/4"	74,68	294.188	264.761
48	131,11	156.009	140.401	2"	88,11	343.220	308.881
50	142,18	169.262	152.342	2-1/16"	95,55	372.375	335.152
52	153,25	186.048	167.438	2-1/8"	102,98	409.306	368.363
56	177,73	212.211	190.988	2-1/4"	119,43	466.864	420.174
60	204,36	244.188	219.764	2-1/2"	137,33	537.214	483.480

Spliced Break Load (All tests are in Accordance with ISO 2307)



An aerial photograph showing a tugboat at the top, connected by a yellow tow line to a much larger ship at the bottom. The water is a deep teal color. A white wake is visible behind the tugboat. A white line with a small circle at the end points from the text box to the tow line.

FORCE STRONG[®] D-TIGHT

LUPP® SQUARE FILM

APPLICATIONS

Vessel Primary Mooring Line
 Secondary Mooring Line
 General Working Line
 Tug Barge Tie-Up Line
 Tug Barge H-Bitt Working Line
 Trawl/Bridle Line
 Other Fishing Line
 ETS Rope

BENEFITS / FEATURES

Excellent Grip
 Moderate Elongation
 Buoyant
 Economically Priced
 Does not Kink
 Easy to Splice
 %25-30 More Strength than Normal PP Ropes



SPECIFICATIONS

Material	:	100% HT Polyolefin Film Fiber
Type	:	L
Specific Gravity	:	0,94 kg/dm ³
Construction	:	8 Strand Plaited (4x2)
UV Resistance	:	Sufficient
Chemical Resistance	:	Very Good
Melting Point	:	165°C
Critical Temperature	:	80°C
Elongation At Break	:	Approx.23%
Fiber Water Absorption	:	None
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Sufficient
Standard	:	ISO 10572
Length	:	200-220 m Coil

Other Colours on Request

DIA (mm)	Weight (kg/220m)	Min. B.load (Kgf) Unspliced	DIA (inch)	Weight (lbs/220ft)	Min. B.Load (lbs) Unspliced
40	158,00	26.300	1-5/8"	106,18	57.860
48	229,00	37.500	2"	153,89	82.500
56	312,00	53.100	2-1/4"	209,66	116.820
64	407,00	68.700	2-5/8"	273,50	151.140
72	515,00	86.000	3"	346,08	189.200
80	638,00	105.800	3-1/4"	428,73	232.760
88	772,00	125.000	3-5/8"	518,78	275.000
96	917,00	150.200	4"	616,22	330.440

*Unspliced Break Load (All tests are in Accordance with ISO 2307)



TANKER SQUARE

APPLICATIONS

Vessel Primary Mooring Line
 Secondary Mooring Line
 General Working Line
 Tug Barge Tie-Up Line
 Tug H-Bitt Working Line
 Trawl/Bridle Line

BENEFITS / FEATURES

Good Breaking Load
 Good Shock Absorption
 Does not Kink
 Easy to Splice
 Durable
 Flexible
 General Accordance with OCIMF
 Guideline



SPECIFICATIONS

Material	:	100% HT Polyolefin & Polyester Mix Fiber
Type	:	L
Specific Gravity	:	1,10 kg/dm ³
Construction	:	8 Strand Plaited (4x2)
UV Resistance	:	Good
Chemical Resistance	:	Very Good
Melting Point	:	165°C
Critical Temperature	:	80°C
Elongation At Break	:	Approx.19%
Fiber Water Absorption	:	0,15%
Wet Abrasion	:	Good
Dry Abrasion	:	Good
Standard	:	ISO 10556
Length	:	200-220 m Coil

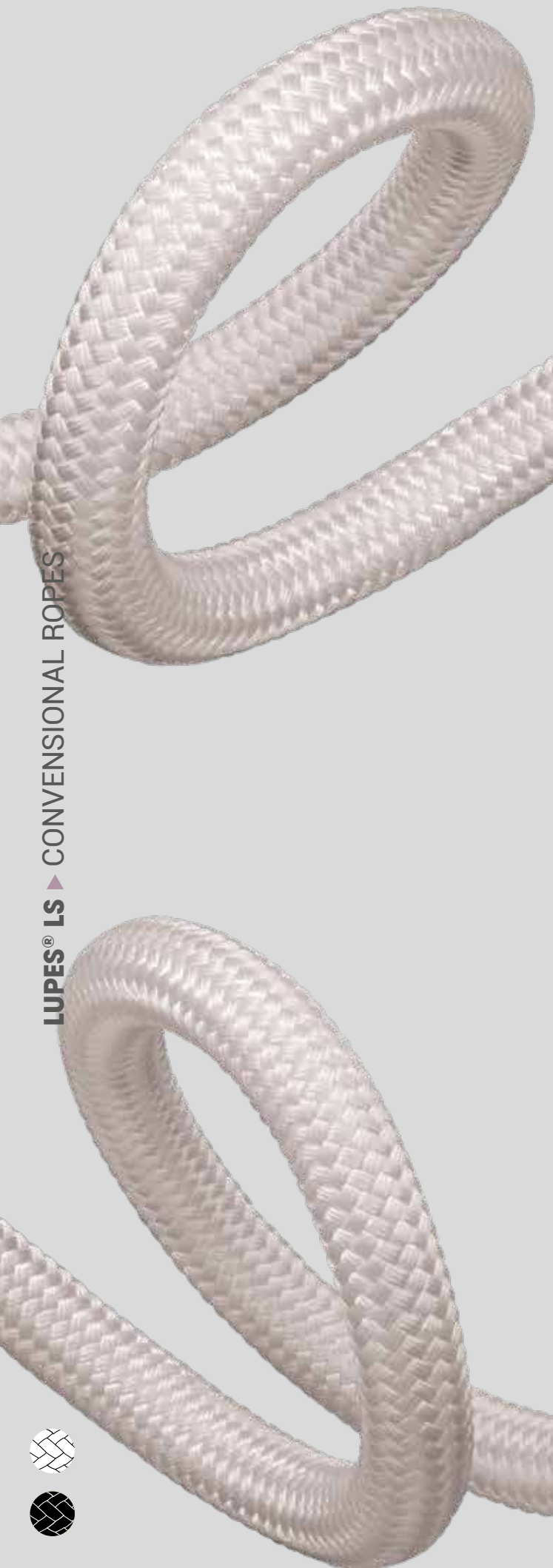
Other Colours on Request

DIA (mm)	Weight (kg/220m)	Min. B.Load (kgf) Unspliced	DIA (inch)	Weight (lbs/220ft)	Min. B.Load (lbs) Unspliced
40	195,00	30.700	1-5/8"	131,04	67.540
48	282,00	47.200	2"	189,50	103.840
56	378,00	64.100	2-1/4"	254,02	141.020
64	495,00	84.100	2-5/8"	332,64	185.020
72	627,00	103.800	3"	421,34	228.360
80	775,00	127.700	3-1/4"	520,80	280.940
88	1.104,00	156.000	3-5/8"	741,89	343.200
96	1.315,00	187.800	4"	883,68	413.160

*Unspliced Break Load (All tests are in Accordance with ISO 2307)

TANKER SQUARE CONVENTIONAL ROPES





LUPES® LS

APPLICATIONS

Secondary Mooring Line
 General Working Line
 Tug Pendant
 Trawl/Bridle Line
 Purse Siene Line

BENEFITS / FEATURES

Outstanding Flexibility
 High Breaking Load
 Easy to Splice
 Does not Kink
 Shares The Load Equally Between Cover and Core
 Stretches Less than The Standard Polyester

SPECIFICATIONS

Material	:	Cover: HT Polyester Fiber Core: Coated HT Polyester Fiber
Specific Gravity	:	1,38 kg/dm ³
Construction	:	Cover : 16-24-32 Plaited Core : 12 Plaited
UV Resistance	:	Excellent
Chemical Resistance	:	Good
Melting Point	:	256°C
Critical Temperature	:	170°C
Working Stretch	:	<4%
Fiber Water Absorption	:	Approx. %1-2
Wet Abrasion	:	Good
Dry Abrasion	:	Good
Standard	:	ISO 10547
Length	:	Upon Request

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
6	3,10	1.200	1/4"	2,08	2.640
8	5,25	1.700	5/16"	3,53	3.740
10	8,10	2.560	3/8"	5,44	5.632
12	11,35	3.600	1/2"	7,63	7.920
14	15,30	4.800	9/16"	10,28	10.560
16	19,45	6.500	5/8"	13,07	14.300
18	25,45	8.200	3/4"	17,10	18.040
20	31,00	10.000	13/16"	20,83	22.000
22	37,90	12.000	7/8"	25,47	26.400
24	44,40	14.250	1"	29,84	31.350
26	53,90	16.600	1-1/16"	36,22	36.520
28	62,50	19.000	1-1/8"	42,00	41.800
30	71,70	21.500	1-1/4"	48,18	47.300
32	81,60	24.200	1-5/16"	54,84	53.240
36	100,30	30.100	1-1/2"	67,40	66.220
40	128,00	36.300	1-5/8"	86,02	79.860
48	184,00	50.600	2"	123,65	111.320
56	250,00	68.200	2-1/4"	168,00	150.040
60	287,00	72.200	2-1/2"	192,86	158.840

*Unspliced Break Load (All tests are in Accordance with ISO 2307)



LUPA® VIPERA

APPLICATIONS

Secondary Mooring Line
 General Working Line
 Vessel Pendant
 Tug Shock Line
 Tug Pendant

BENEFITS / FEATURES

Does not Harden
 Does not Kink
 Soft Hand
 Durable
 Flexible Cover
 High Breaking Load
 Excellent Shock Absorption



SPECIFICATIONS

Material	:	100% HT Polyamide Fiber
Type	:	-
Specific Gravity	:	1,14 kg/dm ³
Construction	:	Cover: 16-20-24 Plaited Core: 16 Plaited
UV Resistance	:	Very Good
Chemical Resistance	:	Good
Melting Point	:	218oC
Critical Temperature	:	130oC
Elongation at Break	:	Approx. %30
Fiber Water Absorption	:	Approx. %3-4
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Good
Standard	:	-
Length	:	100-200 m Plastic/Wooden Spool or Coil

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
8	4,10	1.420	5/16"	2,76	3.124
10	6,20	2.220	3/8"	4,17	4.884
12	9,20	3.190	1/2"	6,18	7.018
14	12,40	4.330	9/16"	8,33	9.526
16	16,25	5.640	5/8"	10,92	12.408
18	20,40	7.120	3/4"	13,71	15.664
20	25,50	8.790	13/16"	17,14	19.338
22	31,00	10.600	7/8"	20,83	23.320
24	36,65	12.640	1"	24,63	27.808
26	43,00	14.790	1-1/16"	28,90	32.538
28	49,75	17.130	1-1/8"	33,43	37.686

*Unspliced Break Load (All Tests are in Accordance with ISO 2307)



LUPA® VIPERA ▲ CONVENTIONAL ROPES





CLASSIC
LOOK



LUPES® VIPERA PREMIER

APPLICATIONS

Secondary Mooring Line
General Working Line
Tug Shock Line
Trawl/Bridle Line

BENEFITS / FEATURES

Does not Harden
Does not Kink
Soft Hand
Durable
Superior Chafe Cover
High Breaking Load
Excellent Abrasion Resistance



SPECIFICATIONS

Material	:	100% HT Polyester Fiber
Type	:	-
Specific Gravity	:	1,38 kg/dm ³
Construction	:	Cover: 32 Plaited Core: 12 Plaited
UV Resistance	:	Excellent
Chemical Resistance	:	Good
Melting Point	:	256°C
Critical Temperature	:	170°C
Elongation at Break	:	Approx. %15
Fiber Water Absorption	:	Approx. %1-2
Wet Abrasion	:	Good
Dry Abrasion	:	Good
Standard	:	-
Length	:	100-200 m Wooden Spool or Coil

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
30	68,35	19.000	1-1/4"	45,93	41.800
32	77,90	21.500	1-5/16"	52,35	47.300
34	89,05	24.250	1 3/8"	59,84	53.350
36	99,60	27.000	1-1/2"	66,93	59.400
38	109,45	30.000	1 9/16"	73,55	66.000
40	123,40	33.000	1-5/8"	82,92	72.600
42	133,60	36.500	1-11/16"	89,78	80.300
44	146,35	40.000	1-3/4"	98,35	88.000
46	162,65	43.500	1-13/16"	109,30	95.700
48	177,35	47.000	2"	119,18	103.400
56	238,10	63.000	2-1/4"	160,00	138.600

*Unspliced Break Load (All tests are in Accordance with ISO 2307)

LUPA® VIPERA PREMIER

APPLICATIONS

Secondary Mooring Line
 General Working Line
 Vessel Pendant
 Tug Shock Line
 Tug Pendant

BENEFITS / FEATURES

Does not Harden
 Does not Kink
 Soft Hand
 Durable
 Superior Chafe Cover
 High Breaking Load
 Excellent Shock Absorption



SPECIFICATIONS

Material	:	100% HT Polyamide Fiber
Type	:	-
Specific Gravity	:	1,14 kg/dm ³
Construction	:	Cover: 32 Plaited Core: 12 Plaited
UV Resistance	:	Very Good
Chemical Resistance	:	Good
Melting Point	:	218°C
Critical Temperature	:	130°C
Elongation at Break	:	Approx. %30
Fiber Water Absorption	:	Approx. %3-4
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Good
Standard	:	-
Length	:	100-200 m Wooden Spool or Coil

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
30	55,60	19.700	1-1/4"	37,36	43.340
32	63,35	22.400	1-5/16"	42,57	49.280
34	72,45	25.300	1-3/8"	48,69	55.660
36	81,00	28.250	1-1/2"	54,43	62.150
38	89,05	31.500	1-9/16"	59,84	69.300
40	100,35	34.800	1-5/8"	67,43	76.560
42	108,65	38.400	1-11/16"	73,01	84.480
44	119,05	42.000	1-3/4"	80,00	92.400
46	132,35	46.000	1-13/16"	88,94	101.200
48	144,35	50.000	2"	97,00	110.000
56	191,50	67.800	2-1/4"	128,69	149.160

*Unspliced Break Load (All tests are in Accordance with ISO 2307)

LUPA® VIPERA PREMIER ▲ CONVENTIONAL ROPES





LUPES® ROUND ▶ CONVENTIONAL ROPES



CLASSIC
LOOK



LUPES® ROUND

APPLICATIONS

Secondary Mooring Line
 General Working Line
 Vessel Pendant
 Tug Main Tow Line
 Tug Shock Line

BENEFITS / FEATURES

Does not Harden
 Does not Kink
 Soft Hand
 Durable
 High Breaking Load
 Easy to Splice
 Excellent Abrasion Resistance

SPECIFICATIONS

Material	:	100% HT Polyester Fiber
Type	:	T
Specific Gravity	:	1,38 kg/dm ³
Construction	:	12 Strand Plaited
UV Resistance	:	Excellent
Chemical Resistance	:	Good
Melting Point	:	256°C
Critical Temperature	:	170°C
Elongation at Break	:	Approx. %15-20
Fiber Water Absorption	:	Approx. %1-2
Wet Abrasion	:	Good
Dry Abrasion	:	Good
Standard	:	EN ISO 1141
Length	:	100-200 m Wooden Spool or Coil

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
18	27,15	7.640	3/4"	18,24	16.808
20	30,40	8.250	13/16"	20,43	18.150
22	36,70	10.000	7/8"	24,66	22.000
24	43,70	11.500	1"	29,37	25.300
26	51,20	13.500	1-1/16"	34,41	29.700
28	59,50	15.500	1-1/8"	39,98	34.100
30	68,30	17.750	1-1/4"	45,90	39.050
32	77,70	20.000	1-5/16"	52,21	44.000
34	88,00	22.500	1 3/8"	59,14	49.500
36	98,40	25.000	1-1/2"	66,12	55.000
38	109,70	29.000	1 9/16"	73,72	63.800
40	121,00	33.000	1-5/8"	81,31	72.600
42	134,00	36.250	1-11/16"	90,05	79.750
44	147,00	39.500	1-3/4"	98,78	86.900
46	161,00	42.750	1-13/16"	108,19	94.050
48	175,00	46.000	2"	117,60	101.200
52	205,00	54.000	2-1/8"	137,76	118.800
56	238,00	62.000	2-1/4"	159,94	136.400
60	273,00	71.000	2-1/2"	183,46	156.200
64	311,00	80.000	2-5/8"	208,99	176.000
72	393,00	100.000	3"	264,10	220.000
80	486,00	123.000	3-1/4"	326,59	270.600
88	588,00	148.000	3-5/8"	395,13	325.600
96	699,00	175.000	4"	469,73	385.000

*Unspliced Break Load (All tests are in Accordance with ISO 2307)

LUPA[®] ROUND

APPLICATIONS

Secondary Mooring Line
General Working Line
Vessel Pendant
Tug Shock Line

BENEFITS / FEATURES

Does not Harden
Does not Kink
Soft Hand
Durable
High Breaking Load
Excellent Shock Absorption
Easy to Splice

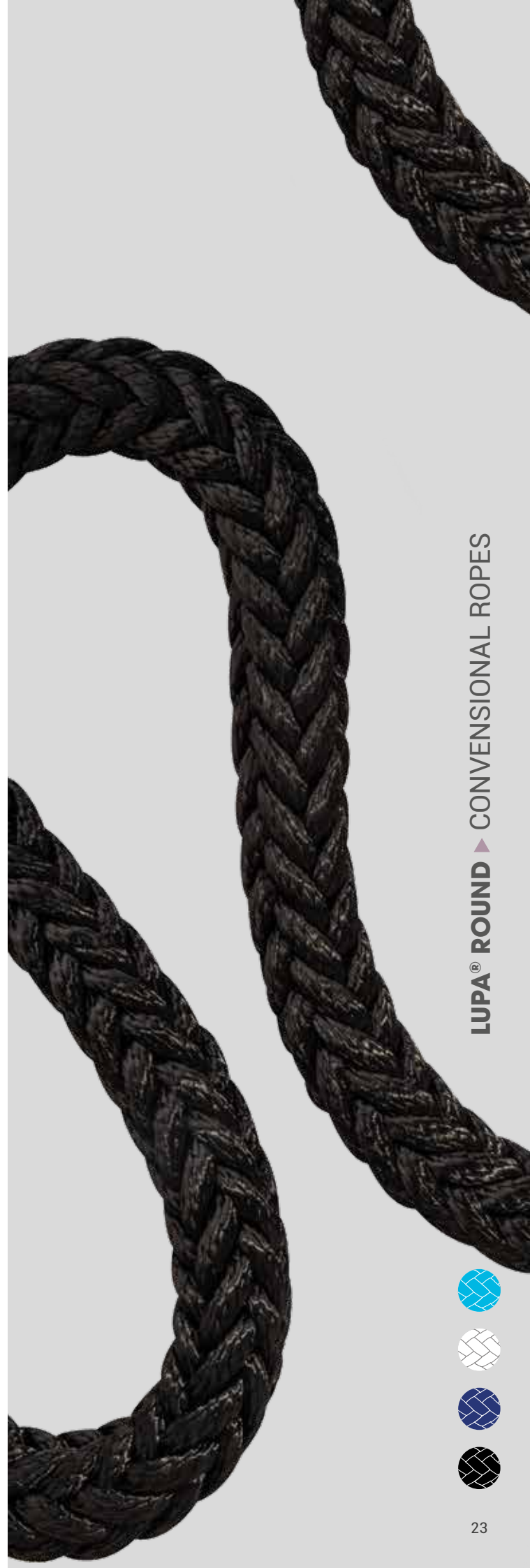
SPECIFICATIONS

Material	:	100% HT Polyamide Fiber
Type	:	T
Specific Gravity	:	1,14 kg/dm ³
Construction	:	12 Strand Plaited
UV Resistance	:	Very Good
Chemical Resistance	:	Good
Melting Point	:	218°C
Critical Temperature	:	130°C
Elongation at Break	:	Approx. %30-35
Fiber Water Absorption	:	Approx. %3-4
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Good
Standard	:	EN ISO 1140
Length	:	100-200 m Wooden Spool or Coil

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
18	23,00	8.000	3/4"	15,46	17.600
20	25,00	8.670	13/16"	16,80	19.074
22	30,50	10.300	7/8"	20,50	22.660
24	36,00	12.030	1"	24,19	26.466
26	42,50	14.500	1-1/16"	28,56	31.900
28	49,00	17.000	1-1/8"	32,93	37.400
30	56,00	19.000	1-1/4"	37,63	41.800
32	64,00	21.125	1-5/16"	43,01	46.475
34	72,50	24.310	1 3/8"	48,72	53.482
36	81,00	27.500	1-1/2"	54,43	60.500
38	90,50	30.750	1 9/16"	60,82	67.650
40	100,00	34.000	1-5/8"	67,20	74.800
42	110,50	37.500	1-11/16"	74,26	82.500
44	121,00	41.000	1-3/4"	81,31	90.200
46	132,50	44.500	1-13/16"	89,04	97.900
48	144,20	48.000	2"	96,90	105.600
52	170,00	58.000	2-1/8"	114,24	127.600
56	197,00	68.000	2-1/4"	132,38	149.600
60	226,00	76.250	2-1/2"	151,87	167.750
64	257,00	84.500	2-5/8"	172,70	185.900
72	325,00	110.000	3"	218,40	242.000
80	401,00	129.000	3-1/4"	269,47	283.800
88	486,00	152.000	3-5/8"	326,59	334.400
96	578,00	183.000	4"	388,41	402.600

*Unspliced Break Load (All tests are in Accordance with ISO 2307)



LUPA[®] ROUND ▲ CONVENTIONAL ROPES



CLASSIC LOOK



LUPP® ROUND

APPLICATIONS

Secondary Mooring Line

BENEFITS / FEATURES

- Does not Harden
- Does not Kink
- Soft Hand
- Economically Priced
- Buoyant
- Easy to Splice

SPECIFICATIONS

Material	:	100% HT Polypropylene Fiber
Type	:	T
Specific Gravity	:	0,91 kg/dm ³
Construction	:	12 Strand Plaited
UV Resistance	:	Sufficient
Chemical Resistance	:	Very Good
Melting Point	:	165°C
Critical Temperature	:	80°C
Elongation at Break	:	Approx. %23
Fiber Water Absorption	:	None
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Sufficient
Standard	:	EN ISO 1346
Length	:	100-200 m Wooden Spool or Coil

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
18	16,70	6.000	3/4"	11,22	13.200
20	18,10	6.500	13/16"	12,16	14.300
22	21,90	7.740	7/8"	14,72	17.028
24	26,00	9.060	1"	17,47	19.932
26	30,80	10.500	1-1/16"	20,70	23.100
28	35,40	12.900	1-1/8"	23,79	28.380
30	40,70	14.600	1-1/4"	27,35	32.120
32	46,30	16.400	1-5/16"	31,11	36.080
34	52,40	18.250	1 3/8"	35,21	40.150
36	58,60	20.100	1-1/2"	39,38	44.220
38	65,40	22.200	1 9/16"	43,95	48.840
40	72,30	24.300	1-5/8"	48,59	53.460
42	79,90	26.650	1-11/16"	53,69	58.630
44	87,50	29.000	1-3/4"	58,80	63.800
46	95,70	31.350	1-13/16"	64,31	68.970
48	104,00	33.700	2"	69,89	74.140
52	122,20	39.150	2-1/8"	82,12	86.130
56	142,00	44.600	2-1/4"	95,42	98.120
60	163,00	50.700	2-1/2"	109,54	111.540
64	185,00	56.800	2-5/8"	124,32	124.960
72	234,00	70.200	3"	157,25	154.440
80	289,00	86.000	3-1/4"	194,21	189.200
88	350,00	102.000	3-5/8"	235,20	224.400
96	417,00	120.000	4"	280,22	264.000

*Unspliced Break Load (All tests are in Accordance with ISO 2307)





CLASSIC
LOOK



LUPES® SQUARE

APPLICATIONS

Secondary Mooring Line
General Working Line
Vessel Pendant
Tug Shock Line

BENEFITS / FEATURES

Does not Harden
Does not Kink
Soft Hand
Durable
High Breaking Load
Easy to Splice
Excellent Abrasion Resistance



SPECIFICATIONS

Material	:	100% HT Polyester Fiber
Type	:	L
Specific Gravity	:	1,38 kg/dm ³
Construction	:	8 Strand Plaited (4x2)
UV Resistance	:	Excellent
Chemical Resistance	:	Good
Melting Point	:	256°C
Critical Temperature	:	170°C
Elongation at Break	:	Approx. %15-20
Fiber Water Absorption	:	Approx. %1-2
Wet Abrasion	:	Good
Dry Abrasion	:	Good
Standard	:	EN ISO 1141
Length	:	100-200 m Wooden Spool or Coil

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
12	10,90	2.875	1/2"	7,32	6.325
14	14,90	3.875	9/16"	10,01	8.525
16	19,40	5.000	5/8"	13,04	11.000
18	24,60	6.250	3/4"	16,53	13.750
20	30,40	8.250	13/16"	20,43	18.150
22	36,70	10.000	7/8"	24,66	22.000
24	43,70	11.500	1"	29,37	25.300
26	51,20	13.500	1-1/16"	34,41	29.700
28	59,50	15.500	1-1/8"	39,98	34.100
30	68,30	17.500	1-1/4"	45,90	38.500
32	77,70	20.000	1-5/16"	52,21	44.000
34	88,00	22.500	1 3/8"	59,14	49.500
36	98,40	25.000	1-1/2"	66,12	55.000
38	109,70	29.000	1 9/16"	73,72	63.800
40	121,00	33.000	1-5/8"	81,31	72.600

*Unspliced Break Load (All tests are in Accordance with ISO 2307)

LUPA[®] SQUARE

APPLICATIONS

Secondary Mooring Line
 General Working Line
 Vessel Pendant
 Tug Shock Line

BENEFITS / FEATURES

Does not Harden
 Does not Kink
 Soft Hand
 Durable
 High Breaking Load
 Excellent Shock Absorption
 Easy to Splice



SPECIFICATIONS

Material	:	100% HT Polyamide Fiber
Type	:	L
Specific Gravity	:	1,14 kg/dm ³
Construction	:	8 Strand Plaited (4x2)
UV Resistance	:	Very Good
Chemical Resistance	:	Good
Melting Point	:	218°C
Critical Temperature	:	130°C
Elongation at Break	:	Approx. %30-35
Fiber Water Absorption	:	Approx. %3-4
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Good
Standard	:	EN ISO 1140
Length	:	100-200 m Plastic/Wooden Spool or Coil

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
12	9,00	3.060	1/2"	6,05	6.732
14	12,30	4.250	9/16"	8,27	9.350
16	16,00	5.400	5/8"	10,75	11.880
18	20,50	6.875	3/4"	13,78	15.125
20	25,00	8.500	13/16"	16,80	18.700
22	30,50	10.250	7/8"	20,50	22.550
24	36,00	12.000	1"	24,19	26.400
26	42,50	14.500	1-1/16"	28,56	31.900
28	49,00	17.000	1-1/8"	32,93	37.400
30	56,00	19.000	1-1/4"	37,63	41.800
32	64,00	21.125	1-5/16"	43,01	46.475
34	72,50	24.310	1 3/8"	48,72	53.482
36	81,00	27.500	1-1/2"	54,43	60.500
38	90,50	30.750	1 9/16"	60,82	67.650
40	100,00	34.000	1-5/8"	67,20	74.800

*Unspliced Break Load (All tests are in Accordance with ISO 2307)



LUPA[®] SQUARE ▲ CONVENTIONAL ROPES





LUPP® SQUARE ▶ CONVENTIONAL ROPES



CLASSIC
LOOK



LUPP® SQUARE

APPLICATIONS

Secondary Mooring Line
Other Fishing Line

BENEFITS / FEATURES

Does not Harden
Does not Kink
Soft Hand
Economically Priced
Buoyant
Easy to Splice

SPECIFICATIONS

Material	:	100% HT Polypropylene Fiber
Type	:	L
Specific Gravity	:	0,91 kg/dm ³
Construction	:	8 Strand Plaited (4x2)
UV Resistance	:	Sufficient
Chemical Resistance	:	Very Good
Melting Point	:	165°C
Critical Temperature	:	80°C
Elongation at Break	:	Approx. %23
Fiber Water Absorption	:	None
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Sufficient
Standard	:	EN ISO 1346
Length	:	100-200 m Plastic/Wooden Spool or Coil

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
12	6,51	2.280	1/2"	4,37	5.016
14	8,86	3.225	9/16"	5,95	7.095
16	11,60	4.310	5/8"	7,80	9.482
18	14,60	5.350	3/4"	9,81	11.770
20	18,10	6.500	13/16"	12,16	14.300
22	21,90	7.740	7/8"	14,72	17.028
24	26,00	9.060	1"	17,47	19.932
26	30,80	10.500	1-1/16"	20,70	23.100
28	35,40	12.900	1-1/8"	23,79	28.380
30	40,70	14.600	1-1/4"	27,35	32.120
32	46,30	16.400	1-5/16"	31,11	36.080
34	52,40	18.250	1 3/8"	35,21	40.150
36	58,60	20.100	1-1/2"	39,38	44.220
38	65,40	22.200	1 9/16"	43,95	48.840
40	72,30	24.300	1-5/8"	48,59	53.460

*Unspliced Break Load (All tests are in Accordance with ISO 2307)





LUPES® TWIST ▶ CONVENTIONAL ROPES

CLASSIC LOOK



LUPES® TWIST

APPLICATIONS

General Working Line
Tug Barge Tie-Up Line
Other Fishing Line

BENEFITS / FEATURES

Does not Harden
Soft Hand
Durable
High Breaking Load
Easy to Splice
Excellent Abrasion Resistance

SPECIFICATIONS

Material	:	100% HT Polyester Fiber
Type	:	A
Specific Gravity	:	1,38 kg/dm ³
Construction	:	3 Strand Plaited
UV Resistance	:	Excellent
Chemical Resistance	:	Good
Melting Point	:	256°C
Critical Temperature	:	170°C
Elongation at Break	:	Approx. %15-20
Fiber Water Absorption	:	Approx. %1-2
Wet Abrasion	:	Good
Dry Abrasion	:	Good
Standard	:	EN ISO 1141
Length	:	200 m Plastic/Wooden Spool or Coil

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
4	1,21	325	5/32"	0,81	715
5	1,90	515	3/16"	1,28	1.133
6	2,73	720	1/4"	1,83	1.584
8	4,85	1.300	5/16"	3,26	2.860
10	7,58	2.060	3/8"	5,09	4.532
12	10,90	2.875	1/2"	7,32	6.325
14	14,90	3.875	9/16"	10,01	8.525
16	19,40	5.000	5/8"	13,04	11.000
18	24,60	6.250	3/4"	16,53	13.750
20	30,30	8.250	13/16"	20,36	18.150
22	36,70	10.000	7/8"	24,66	22.000
24	43,70	11.500	1"	29,37	25.300
26	51,20	13.500	1-1/16"	34,41	29.700
28	59,40	15.500	1-1/8"	39,92	34.100
30	68,20	17.750	1-1/4"	45,83	39.050
32	77,60	20.000	1-5/16"	52,15	44.000
36	98,40	25.000	1-1/2"	66,12	55.000
40	121,00	33.000	1-5/8"	81,31	72.600
48	175,00	46.000	2"	117,60	101.200
56	238,00	62.000	2-1/4"	159,94	136.400
64	311,00	80.000	2-5/8"	208,99	176.000

*Unspliced Break Load (All tests are in Accordance with ISO 2307)

LUPA® TWIST

APPLICATIONS

Secondary Mooring Line
 General Working Line
 Tug Shock Line
 Tug Pendant
 Trawl/Bridle Line
 Other Fishing Line

BENEFITS / FEATURES

Does not Harden
 Soft Hand
 Durable
 High Breaking Load
 Excellent Shock Absorption
 Easy to Splice

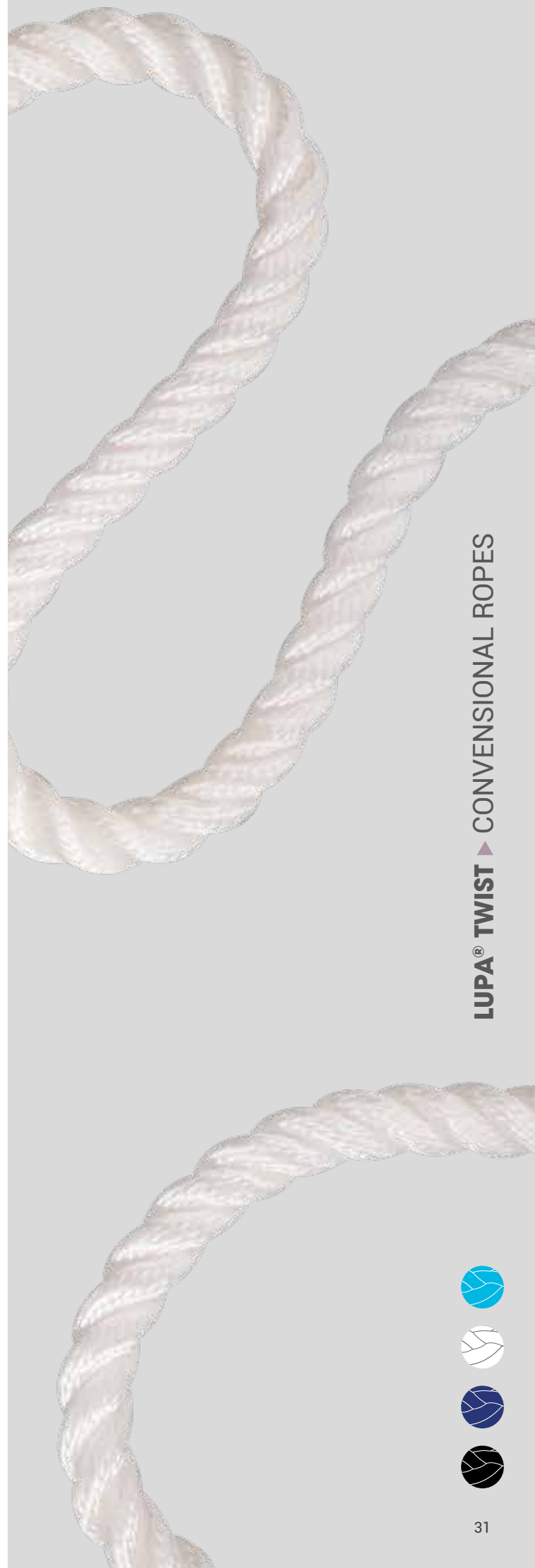
SPECIFICATIONS

Material	:	100% HT Polyamide Fiber
Type	:	A
Specific Gravity	:	1,14 kg/dm ³
Construction	:	3 Strand Plaited
UV Resistance	:	Very Good
Chemical Resistance	:	Good
Melting Point	:	218°C
Critical Temperature	:	130°C
Elongation at Break	:	Approx. %30-35
Fiber Water Absorption	:	Approx. %3-4
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Good
Standard	:	EN ISO 1140
Length	:	200 m Plastic/Wooden Spool or Coil

Other Colours on Request

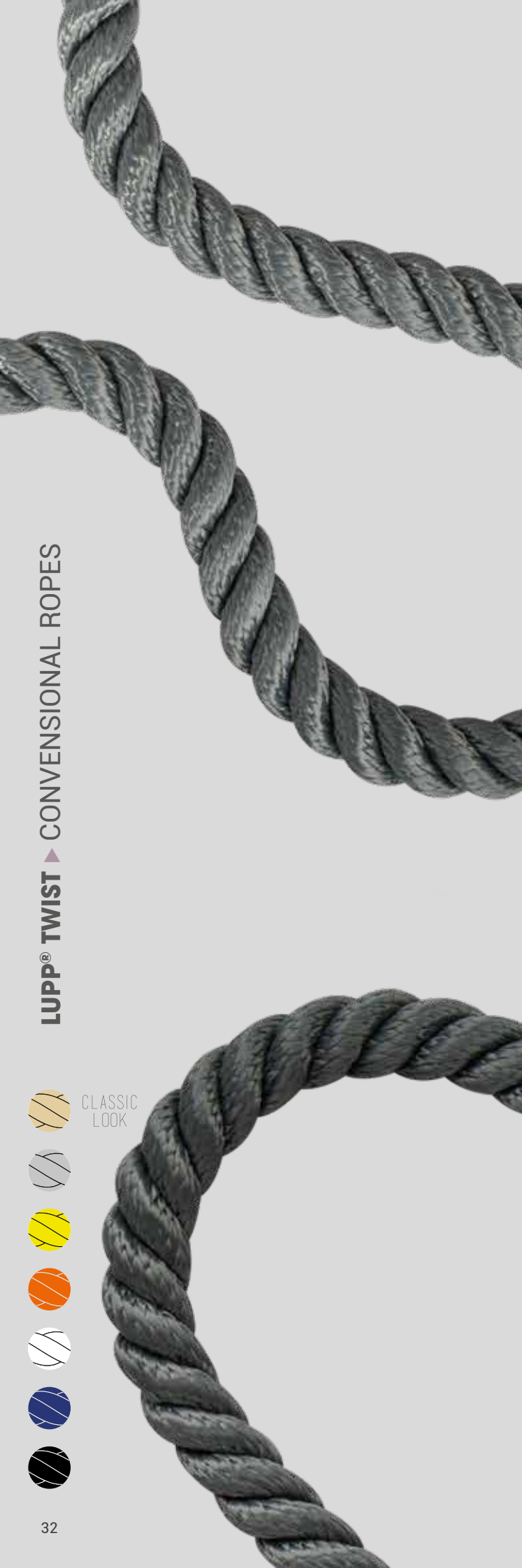
DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
4	0,98	380	5/32"	0,66	836
5	1,54	570	3/16"	1,03	1.254
6	2,22	810	1/4"	1,49	1.782
8	3,95	1.420	5/16"	2,65	3.124
10	6,17	2.160	3/8"	4,15	4.752
12	8,88	3.060	1/2"	5,97	6.732
14	12,10	4.250	9/16"	8,13	9.350
16	15,80	5.280	5/8"	10,62	11.616
18	20,00	6.875	3/4"	13,44	15.125
20	24,70	8.500	13/16"	16,60	18.700
22	29,90	10.250	7/8"	20,09	22.550
24	35,50	12.000	1"	23,86	26.400
26	41,70	14.500	1-1/16"	28,02	31.900
28	48,40	17.000	1-1/8"	32,52	37.400
30	55,50	19.000	1-1/4"	37,30	41.800
32	63,20	21.125	1-5/16"	42,47	46.475
36	80,00	27.500	1-1/2"	53,76	60.500
40	98,70	34.000	1-5/8"	66,33	74.800
48	142,00	48.000	2"	95,42	105.600
56	193,00	68.000	2-1/4"	129,70	149.600
64	253,00	84.500	2-5/8"	170,02	185.900

*Unspliced Break Load (All tests are in Accordance with ISO 2307)



LUPA® TWIST ▲ CONVENTIONAL ROPES





LUPP® TWIST ▲ CONVENTIONAL ROPES



CLASSIC
LOOK



LUPP® TWIST

APPLICATIONS

Other Fishing Line

BENEFITS / FEATURES

Does not Harden
Soft Hand
Economically Priced
Buoyant
Easy to Splice

SPECIFICATIONS

Material	:	100% HT Polypropylene Fiber
Type	:	A
Specific Gravity	:	0,91 kg/dm ³
Construction	:	3 Strand Plaited
UV Resistance	:	Sufficient
Chemical Resistance	:	Very Good
Melting Point	:	165°C
Critical Temperature	:	80°C
Elongation at Break	:	Approx. %23
Fiber Water Absorption	:	None
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Sufficient
Standard	:	EN ISO 1346
Length	:	200 m Plastic/Wooden Spool or Coil

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
4	0,72	320	5/32"	0,48	704
5	1,13	480	3/16"	0,76	1.056
6	1,63	680	1/4"	1,10	1.496
8	2,89	1.200	5/16"	1,94	2.640
10	4,52	1.730	3/8"	3,04	3.806
12	6,51	2.550	1/2"	4,37	5.610
14	8,86	3.410	9/16"	5,95	7.502
16	11,60	4.330	5/8"	7,80	9.526
18	14,60	5.400	3/4"	9,81	11.880
20	18,10	6.500	13/16"	12,16	14.300
22	21,90	7.740	7/8"	14,72	17.028
24	26,00	9.180	1"	17,47	20.196
26	30,60	10.810	1-1/16"	20,56	23.782
28	35,40	12.900	1-1/8"	23,79	28.380
30	40,70	14.600	1-1/4"	27,35	32.120
32	46,30	16.400	1-5/16"	31,11	36.080
36	58,60	20.100	1-1/2"	39,38	44.220
40	72,30	24.300	1-5/8"	48,59	53.460
48	104,00	34.170	2"	69,89	75.174
56	142,00	44.600	2-1/4"	95,42	98.120
64	185,00	57.120	2-5/8"	124,32	125.664

*Unspliced Break Load (All tests are in Accordance with ISO 2307)



LUPP® TWIST FILM

APPLICATIONS

General Working Line
Tug Barge Tie-Up Line
Other Fishing Line

BENEFITS / FEATURES

Does not Harden
Soft Hand
Economically Priced
Buoyant
Easy to Splice



SPECIFICATIONS

Material	:	100% HT Polypropylene Film Fiber
Type	:	A
Specific Gravity	:	0,91 kg/dm ³
Construction	:	3 Strand Plaited
UV Resistance	:	Sufficient
Chemical Resistance	:	Very Good
Melting Point	:	165°C
Critical Temperature	:	80°C
Elongation at Break	:	Approx. %23
Fiber Water Absorption	:	None
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Sufficient
Standard	:	EN ISO 1346
Length	:	200-220 m Coil

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
8	2,89	1.040	5/16"	1,94	2.288
10	4,52	1.530	3/8"	3,04	3.366
12	6,51	2.170	1/2"	4,37	4.774
14	8,86	2.490	9/16"	5,95	5.478
16	11,60	3.700	5/8"	7,80	8.140
18	14,60	4.720	3/4"	9,81	10.384
20	18,10	5.690	13/16"	12,16	12.518
24	26,00	7.920	1"	17,47	17.424
28	35,40	10.500	1-1/8"	23,79	23.100
32	46,30	13.200	1-5/16"	31,11	29.040
36	58,60	16.600	1-1/2"	39,38	36.520

*Unspliced Break Load (All tests are in Accordance with ISO 2307)



LUPES® TWIST TRAWL

APPLICATIONS

Trawl/Bridle Line

BENEFITS / FEATURES

Quick Sink Rate
Durable



SPECIFICATIONS

Material	:	100% HT Polyester Fiber + 6X7 Galvanized Wire Rope
Type	:	A
Specific Gravity	:	-
Construction	:	3+1 Strand Plaited
UV Resistance	:	Excellent
Chemical Resistance	:	Good
Melting Point	:	256°C
Critical Temperature	:	170°C
Elongation at Break	:	Approx. %4-5
Fiber Water Absorption	:	Approx. %1-2
Wet Abrasion	:	Good
Dry Abrasion	:	Good
Standard	:	-
Length	:	Upon Request

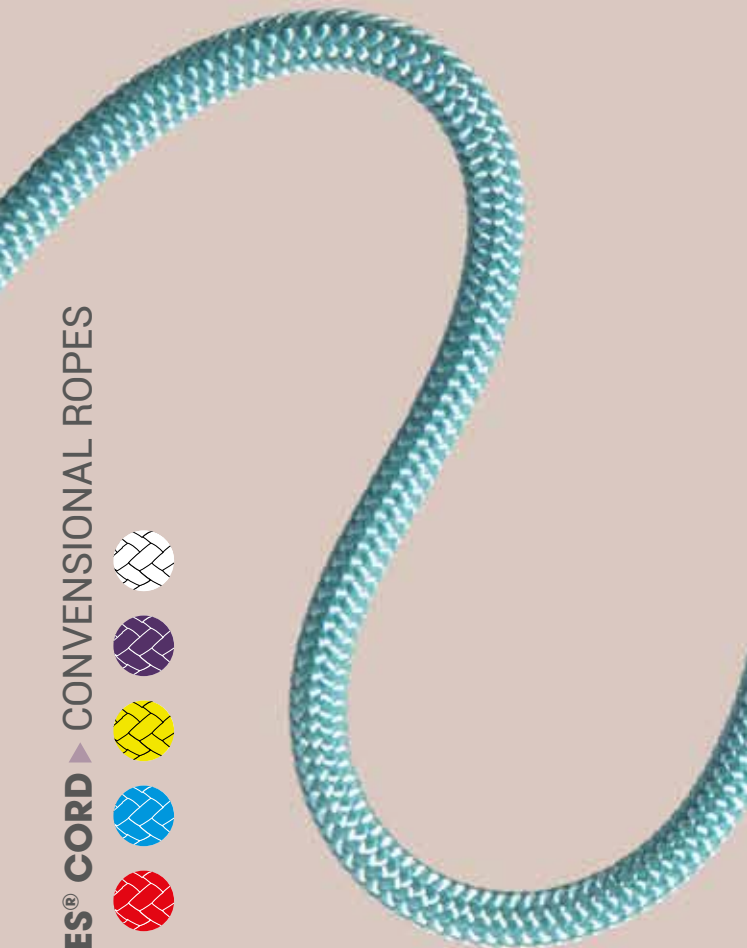
Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs)
30	75,00	-	1-1/4"	50,40	-
32	100,00	-	1-5/16"	67,20	-



LUPES® TWIST TRAWL ▲ CONVENTIONAL ROPES





LUPES® CORD

APPLICATIONS

Other Fishing Line

BENEFITS / FEATURES

Outstanding Flexibility
Great Value for Money
Low Stretch

SPECIFICATIONS

Material	:	Cover: HT Polyester Fiber Core: HT Polyester Fiber
Specific Gravity	:	1,38 kg/dm ³
Construction	:	Cover: 16-20 Plaited Core: Parallel Braided
UV Resistance	:	Excellent
Chemical Resistance	:	Good
Melting Point	:	256°C
Critical Temperature	:	170°C
Working Stretch	:	<5%
Fiber Water Absorption	:	Approx. %1-2
Wet Abrasion	:	Good
Length	:	100-200 m Plastic Spool

Other Colours & Larger Diameters Upon Request

DIA (mm)	Weight (kg/100m)	B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	B.Load (lbs)
3	0,85	180	1/8"	0,57	396
4	1,20	300	5/32"	0,81	660
5	1,95	460	3/16"	1,31	1.012
6	2,70	660	1/4"	1,81	1.452

*Unspliced Break Load (All Tests are in Accordance with ISO 2307)

LUPA® CORD

APPLICATIONS

Trawl/Bridle Line

BENEFITS / FEATURES

Outstanding Flexibility
Great Value for Money
Excellent Shock Absorption

SPECIFICATIONS

Material	:	Cover: HT Polyamide Fiber Core: HT Polyamide Fiber
Specific Gravity	:	1,14 kg/dm ³
Construction	:	Cover: 16-20 Plaited Core: Parallel Braided
UV Resistance	:	Very Good
Chemical Resistance	:	Good
Melting Point	:	218°C
Critical Temperature	:	130°C
Working Stretch	:	<12%
Fiber Water Absorption	:	Approx. %3-4
Wet Abrasion	:	Sufficient
Length	:	100-200 m Plastic Spool

Other Colours & Larger Diameters Upon Request

DIA (mm)	Weight (kg/100m)	B.Load (kgf)	DIA (inch)	Weight (lbs/100ft)	B.Load (lbs)
3	0,70	200	1/8"	0,47	440
4	1,00	330	5/32"	0,67	726
5	1,60	500	3/16"	1,08	1.100
6	2,25	720	1/4"	1,51	1.584

*Unspliced Break Load (All Tests are in Accordance with ISO 2307)





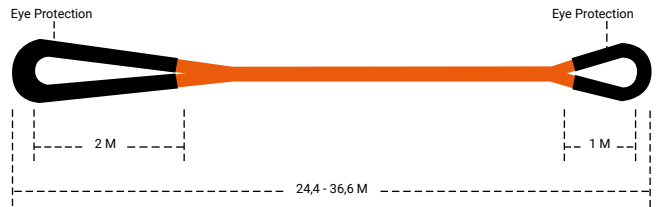
DYNE K® SL/P

APPLICATIONS

Tug Pendant

BENEFITS / FEATURES

- Superior Abrasion Resistance
- Excellent Breaking Load
- Buoyant
- Durable
- Very Low Stretch
- Lightweight



Standard **Single Leg Pendants (SL/P)** have a 2 meter soft eye on one end and a 1 meter soft eye on the other end.

1 meter eye is for mating to the mainline and a 2 meter soft eye is for the shipboard connection.

SPECIFICATIONS

Material	:	Coated Dyneema® SK 78
Specific Gravity	:	0,97 kg/dm ³
Construction	:	12 Strand Braided
UV Resistance	:	Excellent
Chemical Resistance	:	Excellent
Melting Point	:	147°C
Critical Temperature	:	65°C
Working Stretch	:	<1,5%
Fiber Water Absorption	:	None
Wet Abrasion	:	Excellent
Dry Abrasion	:	Excellent
Standard	:	ISO 10325
Length	:	Upon Request

Other Colours & Larger Diameters Upon Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf) Unspliced	Min. B.Load (kgf) Spliced	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs) Unspliced	Min. B.Load (lbs) Spliced
28	44,50	69.360	62.220	1-1/8"	29,90	152.592	136.884
32	57,50	88.740	79.560	1-5/16"	38,64	195.228	175.032
36	72,00	106.080	95.880	1-1/2"	48,38	233.376	210.936
40	88,10	128.520	115.260	1-5/8"	59,20	282.744	253.572
44	106,00	148.920	133.620	1-3/4"	71,23	327.624	293.964
48	125,00	173.400	156.060	2"	84,00	381.480	343.332
52	146,00	201.000	180.540	2-1/8"	98,11	442.200	397.188
56	169,00	230.520	207.060	2-1/4"	113,57	507.144	455.532
60	193,00	258.060	232.560	2-1/2"	129,70	567.732	511.632
64	220,00	289.680	261.120	2-5/8"	147,84	637.296	574.464
72	278,00	359.040	323.340	3"	186,82	789.888	711.348
76	309,00	396.780	357.000	3-1/8"	207,65	872.916	785.400
80	343,00	438.600	394.740	3-1/4"	230,50	964.920	868.428
88	417,00	530.400	477.360	3-5/8"	280,22	1.166.880	1.050.192
96	497,00	630.360	567.120	4"	333,98	1.386.792	1.247.664

Spliced Break Load (All tests are in Accordance with ISO 2307)



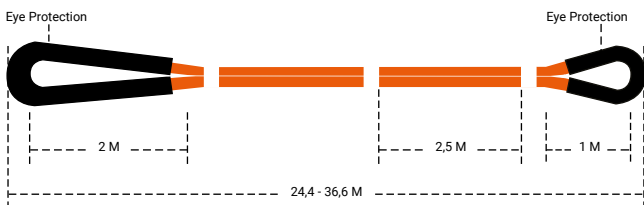
DYNE K® GR/P

APPLICATIONS

Tug Pendant

BENEFITS / FEATURES

Superior Abrasion Resistance
 Excellent Breaking Load
 Buoyant
 Durable
 Very Low Stretch
 Lightweight



Standard **Grommet Pendants (GR/P)** have a 2 meter soft eye on one end and a 1 meter soft eye on the other end.

1 meter eye is for mating to the mainline and a 2 meter soft eye is for the shipboard connection.

Grommet strength is 1.6x the single leg rope strength.

SPECIFICATIONS

Material	:	Coated Dyneema® SK 78
Specific Gravity	:	0,97 kg/dm ³
Construction	:	12 Strand Braided
UV Resistance	:	Excellent
Chemical Resistance	:	Excellent
Melting Point	:	147°C
Critical Temperature	:	65°C
Working Stretch	:	<1,5%
Fiber Water Absorption	:	None
Wet Abrasion	:	Excellent
Dry Abrasion	:	Excellent
Standard	:	ISO 10325
Length	:	Upon Request

Other Colours & Larger Diameters Upon Request

DIA (mm)	Min. B.Load (kgf) Spliced	DIA (inch)	Min. B.Load (lbs) Spliced
28	99.552	1-1/8"	219.014
32	127.296	1-5/16"	280.051
36	153.408	1-1/2"	337.498
40	184.416	1-5/8"	405.715
44	213.792	1-3/4"	470.342
48	249.696	2"	549.331
52	288.864	2-1/8"	635.501
56	331.296	2-1/4"	728.851
60	372.096	2-1/2"	818.611
64	417.792	2-5/8"	919.142
72	517.344	3"	1.138.157
76	571.200	3-1/8"	1.256.640
80	631.584	3-1/4"	1.389.485
88	763.776	3-5/8"	1.680.307
96	907.392	4"	1.996.262

Spliced Break Load (All tests are in Accordance with ISO 2307)



DYNE K® GROMMET PENDANT (GR/P) ▶ PENDANTS



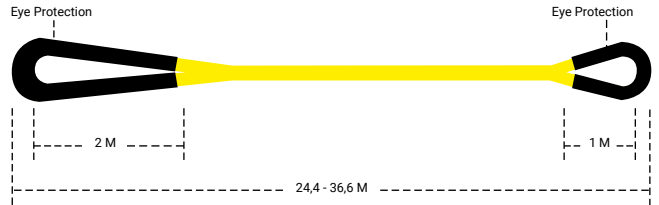
FORCE K® SL/P

APPLICATIONS

Tug Pendant

BENEFITS / FEATURES

- Superior Abrasion Resistance
- Excellent Breaking Load
- Buoyant
- Durable
- Very Low Stretch
- Lightweight



Standard **Single Leg Pendants (SL/P)** have a 2 meter soft eye on one end and a 1 meter soft eye on the other end.

1 meter eye is for mating to the mainline and a 2 meter soft eye is for the shipboard connection.

SPECIFICATIONS

Material	:	Coated UHMWPE Fiber
Specific Gravity	:	0,97 kg/dm ³
Construction	:	12 Strand Braided
UV Resistance	:	Excellent
Chemical Resistance	:	Excellent
Melting Point	:	147°C
Critical Temperature	:	65°C
Working Stretch	:	<1,5%
Fiber Water Absorption	:	None
Wet Abrasion	:	Excellent
Dry Abrasion	:	Excellent
Standard	:	-
Length	:	Upon Request

Other Colours & Larger Diameters Upon Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf) Unspliced	Min. B.Load (kgf) Spliced	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs) Unspliced	Min. B.Load (lbs) Spliced
28	44,50	65.892	59.109	1-1/8"	29,90	144.962	130.040
32	57,50	84.303	75.582	1-5/16"	38,64	185.467	166.280
36	72,00	100.776	91.086	1-1/2"	48,38	221.707	200.389
40	88,10	122.094	109.497	1-5/8"	59,20	268.607	240.893
44	106,00	141.474	126.939	1-3/4"	71,23	311.243	279.266
48	125,00	164.730	148.257	2"	84,00	362.406	326.165
52	146,00	190.950	171.513	2-1/8"	98,11	420.090	377.329
56	169,00	218.994	196.707	2-1/4"	113,57	481.787	432.755
60	193,00	245.157	220.932	2-1/2"	129,70	539.345	486.050
64	220,00	275.196	248.064	2-5/8"	147,84	605.431	545.741
72	278,00	341.088	307.173	3"	186,82	750.394	675.781
76	309,00	376.941	339.150	3-1/8"	207,65	829.270	746.130
80	343,00	416.670	375.003	3-1/4"	230,50	916.674	825.007
88	417,00	503.880	453.492	3-5/8"	280,22	1.108.536	997.682
96	497,00	598.842	538.764	4"	333,98	1.317.452	1.185.281

Spliced Break Load (All tests are in Accordance with ISO 2307)



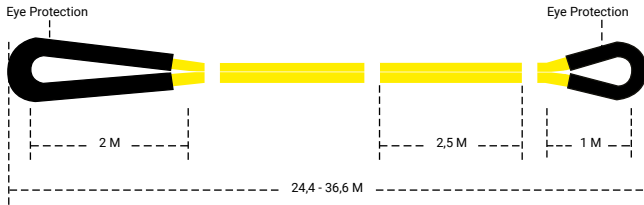
FORCE K[®] GR/P

APPLICATIONS

Tug Pendant

BENEFITS / FEATURES

- Superior Abrasion Resistance
- Excellent Breaking Load
- Buoyant
- Durable
- Very Low Stretch
- Lightweight



Standard **Grommet Pendants (GR/P)** have a 2 meter soft eye on one end and a 1 meter soft eye on the other end.

1 meter eye is for mating to the mainline and a 2 meter soft eye is for the shipboard connection.

Grommet strength is 1.6x the single leg rope strength.

SPECIFICATIONS

Material	:	Coated UHMWPE Fiber
Specific Gravity	:	0,97 kg/dm ³
Construction	:	12 Strand Braided
UV Resistance	:	Excellent
Chemical Resistance	:	Excellent
Melting Point	:	147°C
Critical Temperature	:	65°C
Working Stretch	:	<1,5%
Fiber Water Absorption	:	None
Wet Abrasion	:	Excellent
Dry Abrasion	:	Excellent
Standard	:	-
Length	:	Upon Request

Other Colours & Larger Diameters Upon Request

DIA (mm)	Min. B.Load (kgf) Spliced	DIA (inch)	Min. B.Load (lbs) Spliced
28	94.574	1-1/8"	208.064
32	120.931	1-5/16"	266.049
36	145.738	1-1/2"	320.623
40	175.195	1-5/8"	385.429
44	203.102	1-3/4"	446.825
48	237.211	2"	521.865
52	274.421	2-1/8"	603.726
56	314.731	2-1/4"	692.409
60	353.491	2-1/2"	777.681
64	396.902	2-5/8"	873.185
72	491.477	3"	1.081.249
76	542.640	3-1/8"	1.193.808
80	600.005	3-1/4"	1.320.011
88	725.587	3-5/8"	1.596.292
96	862.022	4"	1.896.449

Spliced Break Load (All tests are in Accordance with ISO 2307)



FORCE K[®] GROMMET PENDANT (GR/P) ▲ PENDANTS



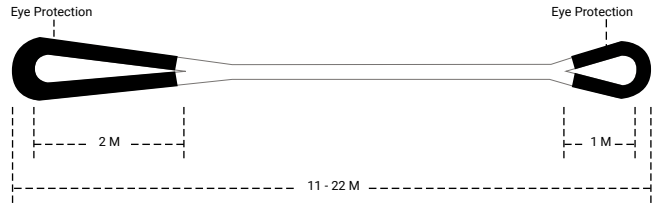
LUPA® ROUND SL/P

APPLICATIONS

Vessel Pendant
Tug Shock Line

BENEFITS / FEATURES

Does not Harden
Does not Kink
Soft Hand
Durable
High Breaking Load
Excellent Shock Absorption
Easy to Splice



Standard **Single Leg Pendants (SL/P)** have a 2 meter soft eye on one end and a 1 meter soft eye on the other end.

Per OCIMF Guidelines, polyamide mooring pendants should have a 37% higher minimum breaking strength than the mooring line. It is recommended to retire mooring pendants after 18 months of use, or prior to residual months of use, or prior to residual strength reduction to 60% of the original minimum breaking strength.

SPECIFICATIONS

Material	:	100% HT Polyamide Fiber
Type	:	T
Specific Gravity	:	1,14 kg/dm ³
Construction	:	12 Strand Plaited
UV Resistance	:	Very Good
Chemical Resistance	:	Good
Melting Point	:	218°C
Critical Temperature	:	130°C
Elongation at Break	:	Approx. %30-35
Fiber Water Absorption	:	Approx. %3-4
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Good
Standard	:	EN ISO 1140
Length	:	Upon Request

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf) Unspliced	Min. B.Load (kgf) Spliced	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs) Unspliced	Min. B.Load (lbs) Spliced
40	100,00	34.000	30.600	1-5/8"	67,20	74.800	67.320
42	110,50	37.500	33.750	1-11/16"	74,26	82.500	74.250
44	121,00	41.000	36.900	1-3/4"	81,31	90.200	81.180
46	132,50	44.500	40.050	1-13/16"	89,04	97.900	88.110
48	144,20	48.000	43.200	2"	96,90	105.600	95.040
52	170,00	58.000	52.200	2-1/8"	114,24	127.600	114.840
56	197,00	68.000	61.200	2-1/4"	132,38	149.600	134.640
60	226,00	76.250	68.625	2-1/2"	151,87	167.750	150.975
64	257,00	84.500	76.050	2-5/8"	172,70	185.900	167.310
72	325,00	110.000	99.000	3"	218,40	242.000	217.800
80	401,00	129.000	116.100	3-1/4"	269,47	283.800	255.420
88	486,00	152.000	136.800	3-5/8"	326,59	334.400	300.960
96	578,00	183.000	164.700	4"	388,41	402.600	362.340

Spliced Break Load (All tests are in Accordance with ISO 2307)



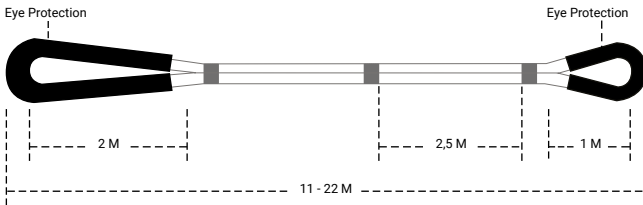
LUPA® ROUND GR/P

APPLICATIONS

Vessel Pendant
Tug Shock Line

BENEFITS / FEATURES

Does not Harden
Does not Kink
Soft Hand
Durable
High Breaking Load
Excellent Shock Absorption
Easy to Splice



Standard **Grommet Pendants (GR/P)** have a 2 meter soft eye on one end and a 1 meter soft eye on the other end.

Grommet strength is 1.6x the single leg rope strength.

Per OCIMF Guidelines, polyamide mooring pendants should have a 37% higher minimum breaking strength than the mooring line.

It is recommended to retire mooring pendants after 18 months of use, or prior to residual months of use, or prior to residual strength reduction to 60% of the original minimum breaking strength.

SPECIFICATIONS

Material	:	100% HT Polyamide Fiber
Type	:	T
Specific Gravity	:	1,14 kg/dm ³
Construction	:	12 Strand Plaited
UV Resistance	:	Very Good
Chemical Resistance	:	Good
Melting Point	:	218°C
Critical Temperature	:	130°C
Elongation at Break	:	Approx. %30-35
Fiber Water Absorption	:	Approx. %3-4
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Good
Standard	:	EN ISO 1140
Length	:	Upon Request

Other Colours on Request

DIA (mm)	Min. B.Load (kgf) Spliced	DIA (inch)	Min. B.Load (lbs) Spliced
32	30.400	1-5/16"	66.880
36	39.600	1-1/2"	87.120
40	48.960	1-5/8"	107.712
44	59.040	1-3/4"	129.888
48	69.120	2"	152.064
52	83.520	2-1/8"	183.744
56	97.920	2-1/4"	215.424
60	109.800	2-1/2"	241.560
64	121.680	2-5/8"	267.696
72	158.400	3"	348.480
80	185.760	3-1/4"	408.672
88	218.880	3-5/8"	481.536
96	263.520	4"	579.744

Spliced Break Load (All tests are in Accordance with ISO 2307)

LUPA® ROUND GROMMET PENDANT (GR/P) ▶ PENDANTS



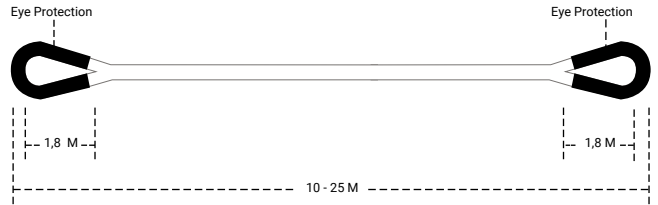
LUPA® ROUND SL/S

APPLICATIONS

Vessel Pendant
Tug Shock Line

BENEFITS / FEATURES

Does not Harden
Does not Kink
Soft Hand
Durable
High Breaking Load
Excellent Shock Absorption
Easy to Splice



The breaking strength of polyamide **Single Leg Shock Line (SL/S)** needs to be 1,5 times the breaking strength of the main towing line.

Polyamide ropes are extremely elastic and stretch out the operational life of tow lines. Their high elasticity enables them to absorb the shock loads that occur during tugging operations.

SPECIFICATIONS

Material	:	100% HT Polyamide Fiber
Type	:	T
Specific Gravity	:	1,14 kg/dm ³
Construction	:	12 Strand Plaited
UV Resistance	:	Very Good
Chemical Resistance	:	Good
Melting Point	:	218°C
Critical Temperature	:	130°C
Elongation at Break	:	Approx. %30-35
Fiber Water Absorption	:	Approx. %3-4
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Good
Standard	:	EN ISO 1140
Length	:	Upon Request

Other Colours on Request

DIA (mm)	Weight (kg/100m)	Min. B.Load (kgf) Unspliced	Min. B.Load (kgf) Spliced	DIA (inch)	Weight (lbs/100ft)	Min. B.Load (lbs) Unspliced	Min. B.Load (lbs) Spliced
40	100,00	34.000	30.600	1-5/8"	67,20	74.800	67.320
42	110,50	37.500	33.750	1-11/16"	74,26	82.500	74.250
44	121,00	41.000	36.900	1-3/4"	81,31	90.200	81.180
46	132,50	44.500	40.050	1-13/16"	89,04	97.900	88.110
48	144,20	48.000	43.200	2"	96,90	105.600	95.040
52	170,00	58.000	52.200	2-1/8"	114,24	127.600	114.840
56	197,00	68.000	61.200	2-1/4"	132,38	149.600	134.640
60	226,00	76.250	68.625	2-1/2"	151,87	167.750	150.975
64	257,00	84.500	76.050	2-5/8"	172,70	185.900	167.310
72	325,00	110.000	99.000	3"	218,40	242.000	217.800
80	401,00	129.000	116.100	3-1/4"	269,47	283.800	255.420
88	486,00	152.000	136.800	3-5/8"	326,59	334.400	300.960
96	578,00	183.000	164.700	4"	388,41	402.600	362.340

Spliced Break Load (All tests are in Accordance with ISO 2307)



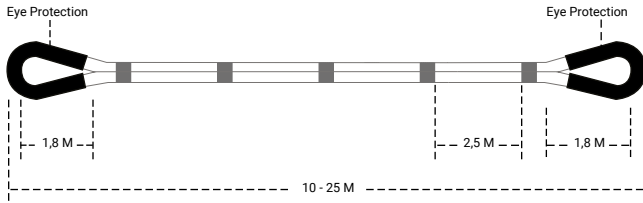
LUPA® ROUND GR/S

APPLICATIONS

Vessel Pendant
Tug Shock Line

BENEFITS / FEATURES

Does not Harden
Does not Kink
Soft Hand
Durable
High Breaking Load
Excellent Shock Absorption
Easy to Splice



The breaking strength of polyamide **Grommet Shock Line (GR/S)** needs to be 1,5 times the breaking strength of the main towing line.

Grommet strength is 1.6x the single leg rope strength.

Polyamide ropes are extremely elastic and stretch out the operational life of tow lines. Their high elasticity enables them to absorb the shock loads that occur during tugging operations.

SPECIFICATIONS

Material	:	100% HT Polyamide Fiber
Type	:	T
Specific Gravity	:	1,14 kg/dm ³
Construction	:	12 Strand Plaited
UV Resistance	:	Very Good
Chemical Resistance	:	Good
Melting Point	:	218°C
Critical Temperature	:	130°C
Elongation at Break	:	Approx. %30-35
Fiber Water Absorption	:	Approx. %3-4
Wet Abrasion	:	Sufficient
Dry Abrasion	:	Good
Standard	:	EN ISO 1140
Length	:	Upon Request

Other Colours on Request

DIA (mm)	Min. B.Load (kgf) Spliced	DIA (inch)	Min. B.Load (lbs) Spliced
32	30.400	1-5/16"	66.880
36	39.600	1-1/2"	87.120
40	48.960	1-5/8"	107.712
44	59.040	1-3/4"	129.888
48	69.120	2"	152.064
52	83.520	2-1/8"	183.744
56	97.920	2-1/4"	215.424
60	109.800	2-1/2"	241.560
64	121.680	2-5/8"	267.696
72	158.400	3"	348.480
80	185.760	3-1/4"	408.672
88	218.880	3-5/8"	481.536
96	263.520	4"	579.744

Spliced Break Load (All tests are in Accordance with ISO 2307)



LUPA® ROUND GROMMET SHOCK LINE (GR/S) ▲ SHOCK LINES





DYNE K® SHACKLE

APPLICATIONS

Connection Line

BENEFITS / FEATURES

- Can be Opened and Closed Quickly
- Buoyant
- Very Low Stretch
- Self-Locking Under Load
- Easy to Use
- Extremely Durable

SPECIFICATIONS

Material	:	Coated Dyneema® SK 78
Specific Gravity	:	0,97 kg/dm ³
Construction	:	12 Strand Plaited
UV Resistance	:	Excellent
Chemical Resistance	:	Excellent
Melting Point	:	147°C
Critical Temperature	:	65°C
Working Stretch	:	<1,5%
Wet Abrasion	:	Excellent
Dry Abrasion	:	Excellent
Standard	:	ISO 10325
Length	:	-

Other Colours & Larger Diameters Upon Request

DIA (mm)	Weight (kg)	Min. B.Load (kgf) Spliced	Total Length (cm)	DIA (inch)	Weight (lbs)	Min. B.Load (lbs) Spliced	Total Length (Feet)
12	0,03	4.670	12,5	1/2"	0,07	10.274	0,41
14	0,05	5.980	15,0	9/16"	0,11	13.156	0,49
18	0,09	9.380	17,5	3/4"	0,19	20.636	0,57
20	0,14	13.460	20,0	13/16"	0,31	29.612	0,66
24	0,33	18.360	35,0	1"	0,72	40.392	1,15
28	0,48	23.700	40,0	1-1/8"	1,06	52.140	1,31
32	0,68	28.500	45,0	1-5/16"	1,50	62.700	1,48
34	0,93	34.000	50,0	1 3/8"	2,04	74.800	1,64
36	1,24	40.800	55,0	1-1/2"	2,72	89.760	1,80
40	1,59	47.000	60,0	1-5/8"	3,50	103.400	1,97
44	2,00	54.000	65,0	1-3/4"	4,39	118.800	2,13
48	2,49	61.000	70,0	2"	5,48	134.200	2,30
50	3,04	70.380	75,0	2-1/16"	6,68	154.836	2,46
54	3,68	79.560	80,0	2-3/16"	8,10	175.032	2,62
58	4,41	87.720	85,0	2-5/16"	9,69	192.984	2,79
60	5,18	95.880	90,0	2-1/2"	11,40	210.936	2,95
64	6,06	106.080	95,0	2-5/8"	13,34	233.376	3,12
68	7,05	115.260	100,0	2-3/4"	15,51	253.572	3,28
72	8,54	124.440	110,0	3"	18,78	273.768	3,61

Spliced Break Load (All tests are in Accordance with ISO 2307)







DYNE COVER



APPLICATIONS

Chafe Protection

BENEFITS / FEATURES

- Superior Abrasion Resistance
- Cut Resistant
- Durable
- Lightweight
- Flexible
- Buoyant

Dyne Cover is special cover made out of Dyneema®, designed and built to protect your splice eye from wear and abrasion for use in heavy duty applications like tug operations. Dyne Cover offers superior protection for ropes on vessels where every day mooring operation are in need.

SPECIFICATIONS

Material : 100% Coated Dyneema® SK78
 Length : Standard Length is 365 cm

Other Colours on Request

Size	ROPE DIA (mm)	COVER SPLICES DIA (mm)	Standard Length (cm)	ROPE DIA (inch)	COVER SPLICES DIA (inch)	Standard Length (Feet)
A	24-30	14-16	365	1"-1-1/4"	9/16"-5/8"	12,00
B	32-44	18-24	365	1-5/16"-1-3/4"	3/4-1"	12,00
C	45-60	28-34	365	1-7/8"-2-1/2"	1-1/8"-1-3/8"	12,00
D	64-76	36-44	365	2-5/8"-3-1/8"	1-1/2"-1-3/4"	12,00
E	80-104	46-56	365	3-1/4"-4-1/4"	1-7/8"-2-3/8"	12,00

LUPES® COVER



APPLICATIONS

Chafe Protection

BENEFITS / FEATURES

- Excellent Abrasion Resistance
- Cut Resistant
- Durable
- Flexible

Our "tightly braided" Polyester cover is very strong and durable, which is designed and developed to protect your rope from abrasion that is usually caused by repetitive motion against unsympathetic contact surfaces. Even little bit of friction can damage unprotected lines. This particular product we have offers an economical solution against abrasion.

SPECIFICATIONS

Material : 100% HT Polyester Fiber
 Length : Standard Length is 365 cm

Other Colours on Request

Size	ROPE DIA (mm)	COVER SPLICES DIA (mm)	Standard Length (cm)	ROPE DIA (inch)	COVER SPLICES DIA (inch)	Standard Length (Feet)
A	24-30	14-16	365	1"-1-1/4"	9/16"-5/8"	12,00
B	32-44	18-24	365	1-5/16"-1-3/4"	3/4-1"	12,00
C	45-60	28-34	365	1-7/8"-2-1/2"	1-1/8"-1-3/8"	12,00
D	64-76	36-44	365	2-5/8"-3-1/8"	1-1/2"-1-3/4"	12,00
E	80-104	46-56	365	3-1/4"-4-1/4"	1-7/8"-2-3/8"	12,00

POLYESTER GUARD

APPLICATIONS

Chafe Protection

BENEFITS / FEATURES

Good Abrasion Resistance
Easy to Install & Remove
High Flexibility
Mildew Resistant

Polyester woven sleeve is strong, resistant to UV light and chemicals, kind on the hands and stretches just moderately when loaded and ideal for protecting spliced eyes. This is the fiber to choose in any application where ultimate performance or minimum weight is not absolutely essential. It is available in different colors.

SPECIFICATIONS

Material : 100% HT Polyester Fabric + Velcro Strip
Length : Standard Length is 365 cm

Other Colours on Request

Size	ROPE DIA (mm)	Thickness Polyester Guard (mm)	Standard Length (cm)	ROPE DIA (inch)	Thickness Polyester Guard (inch)	Standard Length (Feet)
A	24-36	1,5	365	1"-1-1/2"	1/16"	12,00
B	40-52	1,5	365	1-5/8"-2-1/8"	1/16"	12,00
C	56-64	1,5	365	2-1/4"-2-5/8"	1/16"	12,00
D	68-80	1,5	365	2-3/4"-3-1/4"	1/16"	12,00

CORDURA® GUARD

APPLICATIONS

Chafe Protection

BENEFITS / FEATURES

Very Good Abrasion Resistance
Mildew Resistant
Easy to Install & Remove
High Flexibility

Cordura® chafe guard is a woven product that are known for their durability and resistance to abrasions, tears and scuffs. Cordura® is a high strength, cut resistant nylon fabric that is great for adding abrasion resistance to marine ropes used in tough conditions. This particular material is twice the abrasion resistance of standard nylon and three times the abrasion resistance of polyester. It is available in removable velcro strip.

SPECIFICATIONS

Material : 100% HT Cordura® Fabric + Velcro Strip
Length : Standard Length is 365 cm

Other Colours on Request

Size	ROPE DIA (mm)	Thickness Cordura® Guard (mm)	Standard Length (cm)	ROPE DIA (inch)	Thickness Cordura® Guard (inch)	Standard Length (Feet)
A	24-36	1,5	365	1"-1-1/2"	1/16"	12,00
B	40-52	1,5	365	1-5/8"-2-1/8"	1/16"	12,00
C	56-64	1,5	365	2-1/4"-2-5/8"	1/16"	12,00
D	68-80	1,5	365	2-3/4"-3-1/4"	1/16"	12,00

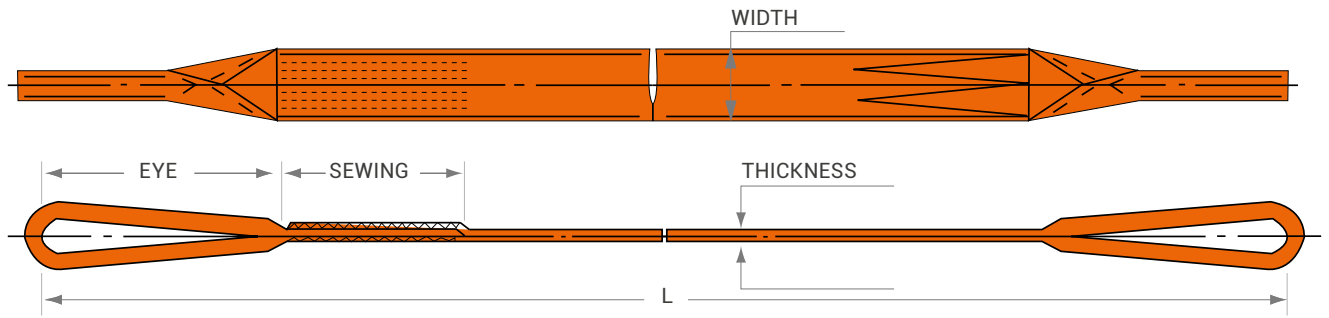


POLYESTER GUARD ▲ CHAFE PROTECTIONS



CORDURA® GUARD ▲ CHAFE PROTECTIONS

LE-1 BAND WEBBING SLING



SPECIFICATIONS

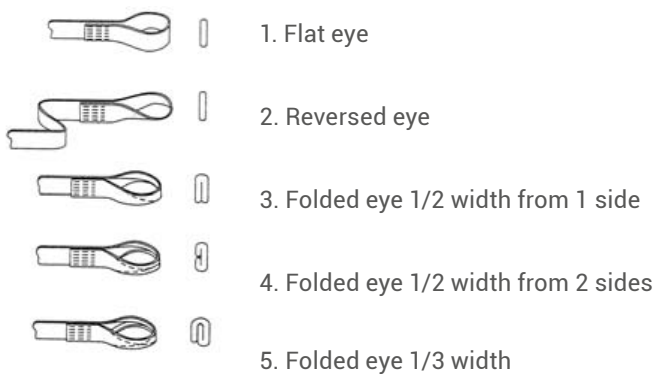
Material : 100% HT Polyester Webbing
 Standard : EN 1492-1+A1
 Safety Factor : 7:1

BENEFITS / FEATURES

High quality product with the 7:1 safety factor
 Produced from the high strength polyester webbing
 Various sizes available for every application
 Not slippery
 High resistance to chemical and oil contamination
 Custom made slings for specific applications may be made to customer specifications
 Various colour are available

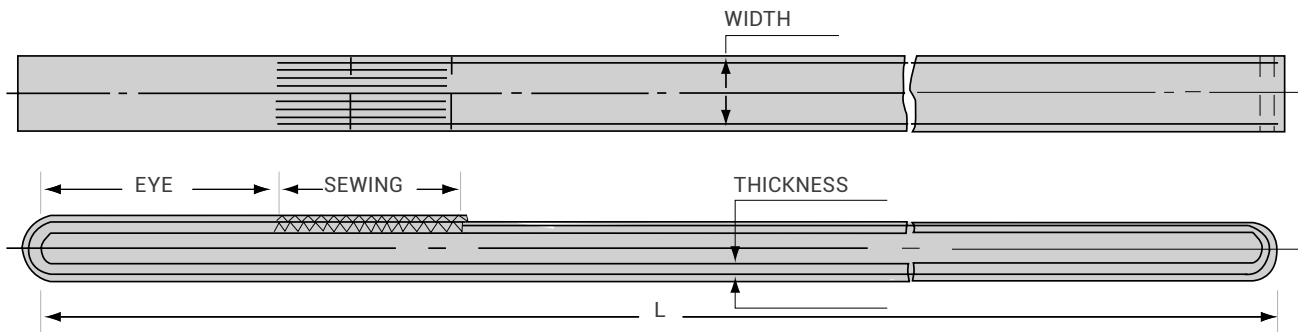


	With (mm)	Working Load (kgf 100%)	Working Load (kgf 80%)	Working Load (kgf 200%)	Angle (0-45°) Working Load (kgf)	Angle (45-60°) Working Load (kgf)	Breaking Load (kgf)	Working Load (kgf)	Length (m)
VIOLET	30-50	1000	800	2000	1400	1000	7000	1000	1-10
GREEN	70	2000	1600	4000	2800	2000	14000	2000	2-10
YELLOW	90	3000	2400	6000	4200	3000	21000	3000	2-10
GRAY	120	4000	3200	8000	5600	4000	28000	4000	4-10
RED	150	5000	4000	10000	7000	5000	35000	5000	4-10
BROWN	180	6000	4800	12000	8400	6000	42000	6000	4-10
BLUE	250	8000	6400	16000	11200	8000	56000	8000	5-10
ORANGE	300	10000	8000	20000	14000	10000	70000	10000	5-10



	0° 100%		60° 85%
	30° 95%		90° 70%
	45° 90%		120° 50%

LE-2 ROUND WEBBING SLING

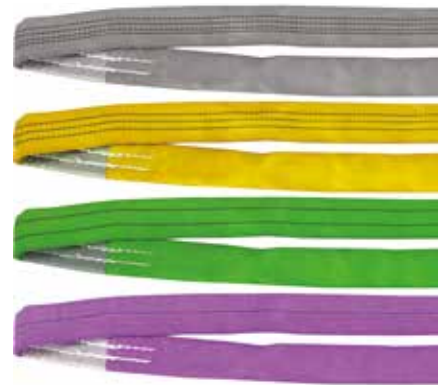


SPECIFICATIONS

Material : 100% HT Polyester Webbing
 Standard : EN 1492-2+A1
 Safety Factor : 7:1

BENEFITS / FEATURES

High quality product with the 7:1 safety factor
 Produced from the high strength polyester webbing
 Various sizes available for every application
 Not slippery
 High resistance to chemical and oil contamination
 Custom made slings for specific applications may be made to customer specifications
 Various colour are available



	With (mm)	Working Load (kgf 100%)	Working Load (kgf 80%)	Working Load (kgf 200%)	Angle (0-45°) Working Load (kgf)	Angle (45-60°) Working Load (kgf)	Breaking Load (kgf)	Working Load (kgf)	Length (m)
VIOLET	25	1000	800	2000	1400	1000	7000	1000	1-10
GREEN	50	2000	1600	4000	2800	2000	14000	2000	2-10
YELLOW	75	3000	2400	6000	4200	3000	21000	3000	2-10
GRAY	100	4000	3200	8000	5600	4000	28000	4000	4-10
RED	125	5000	4000	10000	7000	5000	35000	5000	4-10
BROWN	150	6000	4800	12000	8400	6000	42000	6000	4-10
BLUE	200	8000	6400	16000	11200	8000	56000	8000	5-10
ORANGE	250	10000	8000	20000	14000	10000	70000	10000	5-10

	0° 100%		60° 85%
	30° 95%		90° 70%
	45° 90%		120° 50%



TECHNICAL APPENDIX

OUR MATERIALS



DYNEEMA® FIBER

Dyneema® is an UHMWPE fiber. DSM invented Dyneema® more than 30 years ago and it has been in production since 1990. The fiber is incredibly versatile with virtually limitless applications. The fiber is manufactured by means of a gel-spinning process that combines extreme strength with incredible softness. Dyneema® is a super-strong fiber based on UHMWPE. It offers maximum strength combined with minimum weight.

Dyneema® SK75 is an extremely high-strength, low-stretch fiber.

Dyneema® SK78 fiber from DSM Dyneema® proved its superior performance under extreme conditions. The high modulus fiber, SK78 has a better stability under constant loads, improved creep feature than its prototype.

Dyneema® SK90 is one of the most advanced high-tech fibers with 12-13% greater strength, has same creep feature as SK-75 fiber. It is a perfect fiber for extreme sailors who are in search of outstanding performance.

Dyneema® SK99 is the newest fiber in Dyneema's SK range - 99 sailing inspirations with Dyneema® spotlights and shares the many ways the world's strongest fiber is extending performance and giving professional and recreational sailors a winning, and safety, edge. SK99 has nearly 20% higher strength than SK78 and keeps the same elongation and creep features as SK75.

Technora®

TECHNORA® FIBER

Technora® is a para-aramid fiber made from co-polymers and produced from poly-paraphenylene terephthalamide (ppta). It was independently developed by Teijin and has been commercially available since 1987. This high performance fiber has a range of excellent properties, including high tensile strength, good fatigue resistance, long-term dimensional stability and good resistance to corrosion, heat, chemicals and saltwater.

Vectran™

VECTRAN® FIBER

Vectran® is a high-performance multifilament yarn spun from liquid crystal polymer (LCP) produced by Kuraray in Japan. Vectran® is currently the only melt spun lcp fiber in the world that is commercially available. The unique combination of characteristics of Vectran® fibers make it superior to many other materials and enable it to perform under conditions in which other materials fail.

Twaron®

TWARON® FIBER

Twaron® is a para-aramid, high-performance yarn. Offering well-balanced performance in terms of mechanical properties, chemical resistance and thermal stability, Twaron® is recognized across a wide range of industries as an extremely valuable material with excellent durability. Their experience in aramid production, which extends back more than 30 years, not only guarantees a technically well-established product, it is also the basis for developments, often in close cooperation with our customers, to tailor Twaron® to the specific requirements of various applications.

POLYESTER

POLYESTER

First commercial polyester fiber production: 1953, Dupont company. Polyester is a category of polymers which contain the ester functional group in their main chain. Polyester is the most durable of the common materials. It has good breaking load and a low elongation. It has good resistance against sunlight, external abrasion. Polyester does not lose strength rapidly due to cyclic loading. Polyester has a low coefficient of friction. Polyester is used as a material for the cover (protection against UV radiation) in the high-tech ropes and is most widely used fiber in yachting ropes as well as for anchoring lines.

POLYAMIDE

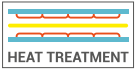
POLYAMIDE

First commercial nylon fiber production: 1939, Dupont company. A manufactured fiber in which the fiber forming substance is a long-chain synthetic polyamide in which less than 85% of the amide-linkages are attached directly (-co nh-) to two aliphatic groups. Polyamides-of its strength when wet. The abrasion resistance of polyamide is better in wet conditions than in dry conditions. Polyamide can become stiff (kept in wet condition for too long). The most important polyamides are PA 6 and PA 6.6. Polyamide is used for mooring lines, sport climbing ropes, safety and rescue ropes.

OUR TREATMENTS



This special polyurethane coating known as long lasting- most efficient kind of protective coating that is being applied to each of our high-tech lines to improve abrasion resistance on the ropes and avoids slippage between cover and core. This particular process offers excellent substrate protection to get better results, which also makes the splicing much easier.



This particular thermal process increases efficiency and strength of Dyneema® ropes, which also achieves significant improvements in the break load of the rope and almost eliminates the 'creep' that helps ropes to have better performance. This procedure contracts the yarns and increases the net fiber density of the rope as well. The ropes become stronger and more durable than standard production performance ropes through these processes.



Dyneema® fiber currently has a lowest stretch among all the other synthetic fibers. However, the constructional elongation will occur during twisting and braiding processes of basic rope manufacturing procedure. Pre-Stretch method is used to minimize this constructional elongation and improve rope strength. When the heat set and Pre-Stretch process applied on the rope together, the both constructional and structural elongation will be reduced yet further increase in strength is also obtained by making the polymer to linear array. We apply this method to all of our high-tech and mid-tech lines to have an excellent product that exceeds our customer's needs.



SAFETY INSTRUCTION



Some essential "Do's" and Don't's".

- Ensure before use that the ropes are in good condition.
- Store ropes in a well-ventilated dry atmosphere away from heat, strong sunlight and corrosive substances
- Always coil ropes in the direction of Lay ; Left hand (L.H.) lay anti-clockwise, Right hand (R.H.) lay clockwise.
- Never load a kinked rope or pull it through a block, as the rope is weaker at the kink and likely to part at that point at a much lower breaking strain
- For the purpose of forming an eye this will reduce its strength by 50%. Splice the rope in the normal manner, reduction in the strength of the rope due to splicing is about 10%.
- Chafe and wear account for most rope failure. Never use a smaller sheave than is recommended for the size of rope you are using.
- Do not drag over sharp, rough or dirty surfaces, as abrasives can penetrate the rope and damage the fibres.
- Avoid contamination by chemicals or fumes. If contamination is suspected, wash man-made fibre ropes in cold running water e.g. by hosing.
- If a rope has been used in mud, sand or grit, it should be cleaned thoroughly before being stored. To wash rope, hang it up in loose coils or flake it out on the deck and again hose with fresh water.
- Avoid build-up of excessive turn in ropes. If this condition has occurred, loops will form.
- Never stand in rope loops.
- Regular inspection of ropes is a worthwhile exercise, as the life can be extended considerably by proper repair and protection at obvious chafing points



**INNOVATIVE &
SMART SOLUTIONS**

**HIGH-TECH
PRODUCTION
FACILITY**



**IN-HOUSE
SPLICING**

**CUSTOM-MADE
PRODUCTION**



OVERVIEW PROPERTIES

FIBERS	POLYAMIDE 6&6.6 (PA)	POLYESTER (PES)	POLYPROPYLENE MULTIFILAMENT (PP)	POLYPROPYLENE (HIGH) TENACITY) (HTPP)
BRAND NAME	NYLON® PERLON® ENKALON®	DIOLEN® TREVERIA® DACRON®	HOSTALEN® SOFTLENE® LEOLENE®	LEOLENE® AROVA® BETELON®
TENACITY OF YARN (CN/DTEX)	7-9	7-9	APP.6	APP.8
SPECIFIC GRAVITY (KG/DM³)	1,14	1,38	0,91	0,91
REDUCTION IN TENACITY WHEN WET (%)	10-15	0	0	0
WATER ABSORPTION (%)	1-7	0,5-2	0	0
KNOT STABILITY (%)	60-65	55-60	55-65	55-65
UV RESISTANCE	VERY GOOD	EXCELLENT	GOOD ONLY WHEN TREAT	GOOD ONLY WHEN TREAT
BREAKING STRETCH (%)	14-28	10-18	14-17	15-16
CREEP	SLIGHT CREEP UNDER LOAD	HARDLY MEASURABLE	CREEPS AT HIGH LOADS	CREEPS AT HIGH LOADS
RESISTANCE TO ABRASION	EXCELLENT	EXCELLENT	SUFFICIENT	SUFFICIENT
WASHING TEMPERATURE (°C)	50-60	50-60	30	30
RESISTANCE TO ACIDS (%)	GOOD	GOOD	VERY GOOD	VERY GOOD
RESISTANCE TO PETROLEUM BASED PRODUCTS	EXCELLENT	EXCELLENT	EXCELLENT	EXCELLENT
RESISTANCE TO SOLVENTS	FORMIC ACID & ACETIC ACID AT HIGH TEMPERATURE	PHENOLS, CRESOLS ZINC CHLORIDE	MINIMAL REACTION	MINIMAL REACTION
RESISTANCE TO ALKALI	GOOD RESISTANT AGAINST WEAK SOLUTIONS	GOOD AT ROOM TEMPERATURE	GOOD RESISTANT AGAINST WEAK SOLUTIONS	GOOD RESISTANT AGAINST WEAK SOLUTIONS
INSULATING PROPERTIES	VERY GOOD	VERY GOOD	EXCELLENT	EXCELLENT
HIGHEST TEMPERATURE (°C)	130	170	80	80
MELTING POINT (°C)	218	256	165	165

CHEMICAL RESISTANCE

CHEMICALS	TEST CONDITIONS			RESIDUAL STRENGTH				
	CONCENTRATION	TEMPERATURE	EXPOSURE	TYPE OF FIBRE				
	CHEMICAL TO WATER %	DEG °C	HOURS	POLYAMIDE	POLYESTER	POLYPROPYLENE	ARAMID	HMPE
ACIDS								
HYDROCHLORIC	34%	20°C	100	0%	70%	100%	95%	100%
NITRIC	66%	20°C	100	0%	100%	100%	95%	95%
SULPHURIC	96%	20°C	100	0%	100%	100%	40%	90%
FORMIC	90%	20°C	100	0%	95%	100%	90%	100%
ACETIC	100%	20°C	10	85%	95%	100%	100%	100%
ALKALIS								
CAUSTIC SODA	40%	20°C	100	50%	0%	90%	90%	100%
CAUSTIC SODA	20%	70°C	150	100%	0%	100%	85%	90%
CAUSTIC POTASH	40%	20°C	100	90%	0%	90%	90%	100%
SOLVENTS								
TRICHLOROETHYLENE	100%	30°C	150	100%	95%	80%	100%	100%
CARBON TETRACHLORIDE	100%	20°C	150	100%	100%	100%	98%	100%
BENZENE	100%	70°C	150	100%	100%	100%	98%	95%
METACRESOL	100%	100°C	40	0%	0%	100%	80%	100%
OXIDISING AGENTS								
HYDROGEN PEROXIDE	10%	20°C	100	0%	100%	90%	95%	100%

THIS TABLE SHOWS THE RESIDUAL STRENGTHS OF SYNTHETIC FIBRES AFTER CHEMICAL EXPOSURE UNDER SPECIFIC CONDITIONS.

OVERVIEW PROPERTIES

POLYETHYLENE (PE)	HIGH MODULUS POLYETHYLENE (UHMWPE)	ARAMID	LIQUID CRYSTAL POLYMER (LCP)	POLYBENZOXAZOLE (PBO)	FIBERS
	DYNEEMA® SPECTRA®	TWARON® TECHNORA® KEVLAR® HERACRON®	VECTRAN®	ZYLON®	BRAND NAME
APP. 4,5	35	20-25	20	37	TENACITY OF YARN (CN/DTEX)
0,95	0,97	1,39-1,44	1,40	1,52	SPECIFIC GRAVITY (KG/DM³)
0	0	0	0	0	REDUCTION IN TENACITY WHEN WET (%)
0	0	1,9-7	1	0,6	WATER ABSORPTION (%)
50-60	35-50	35-50	35-50	35-55	KNOT STABILITY (%)
GOOD	EXCELLENT	POOR	POOR	POOR	UV RESISTANCE
10-19	3,8	3,4	3,3	2,8	BREAKING STRETCH (%)
CREEPS AT HIGH LOADS	CREEPS AT HIGH LOAD	HARDLY MEASURABLE	IMMEASURABLE	IMMEASURABLE	CREEP
SUFFICIENT	VERY GOOD	UNSATISFACTORY	GOOD	UNSATISFACTORY	RESISTANCE TO ABRASION
30	30	80-90	60	50	WASHING TEMPERATURE (°C)
EXCELLENT	EXCELLENT	PARTIALLY GOOD RESISTANCE	EXCELLENT	GOOD	RESISTANCE TO ACIDS (%)
EXCELLENT	EXCELLENT	EXCELLENT	EXCELLENT	EXCELLENT	RESISTANCE TO PETROLEUM BASED PRODUCTS
MINIMAL REACTION	MINIMAL REACTION	MINIMAL REACTION	MINIMAL REACTION	MINIMAL REACTION	RESISTANCE TO SOLVENTS
EXCELLENT	EXCELLENT	PARTIALLY GOOD	VERY GOOD	VERY GOOD	RESISTANCE TO ALKALI
EXCELLENT	EXCELLENT	EXCELLENT	EXCELLENT	EXCELLENT	INSULATING PROPERTIES
70	70	350	200	500	HIGHEST TEMPERATURE (°C)
140	147	500 DECOMPOSES	300	650 DECOMPOSES	MELTING POINT (°C)

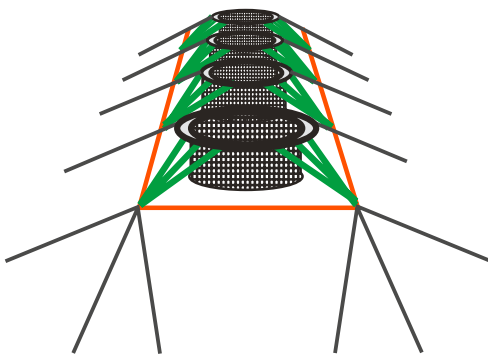
TYPICAL CHARACTERISTIC OF MATERIALS

MATERIALS	SPECIFIC GRAVITY	SPECIFIC MODULUS N/TEX	SPECIFIC STRENGTH N/TEX	DYNAMIC COEFFICIENT OF FRICTION AGAINST METAL	MELTING POINT °C	OTHER CHARACTERISTIC
POLYESTER	1,38	10	0,84	0,12 - 0,15	256	EXCELLENT WET INTERNAL ABRASION RESISTANCE
POLYAMIDE	1,14	4	0,84	0,10 - 0,12	218	10-15% WET STRENGTH LOSS. FAIR WET INTERNAL ABRASION RESISTANCE
POLYPROPYLENE	0,91	8	0,73	0,15 - 0,22	165	LOW STRENGTH. FLOAT ON WATER
POLYPROPYLENE/ POLYETHYLENE (MIXED POLYOLEFIN)	0,92-0,94	9	0,84	0,10 - 0,15	140	BETTER ABRASION RESISTANCE THAN POLYPROPYLENE. FLOAT ON WATER
POLYESTER/POLYOLEFIN DUAL FIBRES	0,99-1,14	10	0,80	0,10 - 0,15	256 - 140	VERY GOOD WET/DRY ABRASION RESISTANCE.
POLYAMIDE MONO AND FIBRE MIXTURE	0,98-1,14	4	0,84	0,10 - 0,12	165 - 218	GOOD ABRASION RESISTANCE FOR USE ON WINCHES
POLYESTER/POLYPROPYLENE MELT MIXTURE	0,99	8	0,80	0,12 - 0,15	173	STRONGER THAN POLYPROPYLENE. FLOAT ON WATER
ARAMID	1,44	49	2,03	0,15	500	POTENTIAL AXIAL COMPRESSION FATIGUE PROBLEMS, BUT THESE CAN BE OVERCOME. LONG TENSION-TENSION FATIGUE LIFE
LCP (LIQUID CRYSTAL POLYMER)	1,40	60	2,40	0,13	300	HIGH STRENGTH AND LOW STRETCH. LONG TERM DURABILITY TO FATIGUE
UHMWPE (HIGH MODULUS POLYETHYLENE)	0,97	110	3,50	0,07	147	LOW MELTING POINT. FLOAT ON WATER. LONG TENSION-TENSION FATIGUE LIFE
STEEL WIRE	7,85	26	0,18	0,23	1600	CORRODES. HEAVY. MODERATE TENSION-TENSION FATIGUE LIFE.

SUGGESTED MOORING ROPES FOR VARIOUS CLASSES OF VESSELS

PASSANGER VESSELS , RO-RO, CAR-CONTANIER CARRIERS		DYNE® K / FORCE K®	TANKER SQUARE	LUPP® SQUARE FILM	PP NORMAL	LUPA® SQUARE
∅						
DWT	3.-5.000 DWT	22	44	48	56	44
	5.-12.000 DWT	24	48	52	60	48
	12.-25.000 DWT	26	52	56	64	52
	25.-40.000 DWT	28	56	60	72	56
	40.-80.000 DWT	32	60	64	76	60
	ABOVE 80.000 DWT	36	64	68	80	64
BULKCARRIERS, TANKERS		DYNE® K / FORCE K®	TANKER SQUARE	LUPP® SQUARE FILM	PP NORMAL	LUPA® SQUARE
∅						
DWT	5.-10.000 DWT	24	44	48	56	44
	10.-20.000 DWT	26	48	52	60	48
	20.-40.000 DWT	32	52	56	64	52
	40.-80.000 DWT	36	56	60	72	56
	80.-150.000 DWT	38	60	64	76	60
	150.-250.000 DWT	40	64	68	80	64
	ABOVE 250.000 DWT	44	68	72	88	68

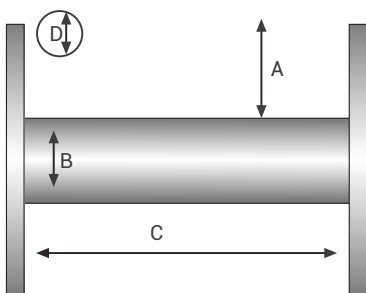
SUGGESTED MOORING & ANCHOR LINE FISH FARMING



- Ø20 MM – Ø36 MM
LUPA® TWIST
(SINKING) POLYAMIDE FIBER
- Ø36 MM – Ø40 MM
LUPA® TWIST
(SINKING) POLYAMIDE FIBER
- Ø40 MM – Ø56 MM
LUPP® SQUARE FILM
(FLOATING) POLYOLEFIN FIBER

NOTE: ROPE DIAMETERS MENTIONED ABOVE CHANGE ACCORDING TO SIZE OF FISHFARMS. THEREFORE, MINIMUM AND MAXIMUM VALUES ARE USED.

ROPE LENGTH ACCORDING TO DIAMETER & REEL SIZE



ROPES LENGTH (METER) :
$$\frac{(A+B)*A*C*\pi*10^6}{D^2}$$

A,B,C: (METER) : D: (MM)

CONVERSION TABLE

	TO CONVERT	MULTIPLY BY	TO CONVERT	MULTIPLY BY
WEIGHT	POUNDS TO GRAMS	453592	GRAMS TO POUNDS	0,002205
	POUNDS TO KILOGRAMS	0,4536	KILOGRAMS TO POUNDS	2,20462
	TONS TO KILOGRAMS	1016,05	KILOGRAMS TO TONS	0,0009842
	POUNDS TO OUNCES	16	OUNCES TO POUNDS	0,0625
	POUNDS/100 FEET TO GRAMS/METERS	14,8816394	GRAMS/METERS TO POUNDS / 100 FEET	67,0969
STRENGTH	KILOGRAMS TO KILONEWTONS	0,0098	KILONEWTONS TO KILOGRAMS	101,972
	TONS TO NEWTONS	9810	NEWTONS TO TONS	0,000102
LENGTH	INCHES TO MILIMETERS	25,40	MILIMETERS TO INCHES	0,03937
	FEET TO METERS	0,3048	METERS TO FEET	3,208
	FEET TO INCHES	12	INCHES TO FEET	0,833
	YARDS TO METERS	0,9144	METERS TO YARDS	1,0936
	YARDS TO FEET	3	FEET TO YARDS	0,333
	MILES TO KILOMETERS	1,6093	KILOMETERS TO MILES	0,6214
	CIRC. INCHES TO DIAMETER MILIMETERS	8	DIAMETERS MILIMETERS TO CIRC. INCHES	0,125
AREA	SQUARE FEET TO SQUARE METERS	0,0929	SQUARE METERS TO SQUARE FEET	10,7639
	SQUARE YARDS TO SQUARE METERS	0,8361	SQUARE METERS TO SQUARE YARDS	1,1960
TEX-SYSTEM	DENIER	WT.ING/9000M	TEX TO DTEX	10
	TEX	WT.ING/1000M	DEN TO TEX	0,111
	DTEX	WT.ING/10.000M	CN/DTEX	GR/DEN



STANDARDS OF ROPES

EN ISO 9554	Fibre Ropes - General Specifications
EN ISO 1968	Fibre Ropes and Cordage - Vocabulary
EN ISO 2307	Fibre Ropes - Determination of Certain Physical and Mechanical Properties
EN ISO 1140	Fibre Ropes - Polyamide - 3, - 4 and - 8 Strand Ropes
EN ISO 1141	Fibre Ropes - Polyester - 3, - 4 and - 8 Strand Ropes
EN ISO 1346	Fiber Ropes - Polypropylene - 3, - 4 and - 8 Strand Ropes
EN ISO 1181	Fibre Ropes - Manila and Sisal - 3,- 4 and - 8 Strand Ropes
ISO 10547	Polyester Fibre Ropes - Double Braid Construction
ISO 10554	Polyamide Fibre Ropes - Double Braid Construction
ISO 10572	Mixed Polyolef in Fibre Ropes
ISO 10325	Fibres Ropes - High Modulus Polyethylene - 8 Strand Braided Ropes, 12 Strand Braided Ropes and Covered Ropes
ISO 10556	Fibres Ropes of Polyester/Polyolef in Dual Fibres
EN 1891	Personel Protective Equipment for The Prevention of Falls From A Height - Low Stretch Kernmantel Ropes
EN 892	Mountaineering Equipment - Dynamic Mountaineering Ropes - Safety Requirements and Test Methods
EN 564	Mountaineering Equipment - Accessory Cord - Safety Requirements and Test Methods

STANDARDS OF ROPES

MIL-DTL 24050E	Polyamide Fibre Ropes - Double Braid Construction
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STANDARDS OF SLINGS

EN 1492-1+A1	Textile Slings - Safety - Part 1: Flat Woven Webbing Slings, Made of Man - Made Fibers for General Purpose Use
EN 1492-2+A1	Textile Slings - Safety - Part 2: Roundslings, Made of Man - Made Fibers for General Purpose Use

QUALITY - TEST

Kaya Ropes manufactures all kinds of ropes with technical specifications that are suitable for all kind of conditions & ropes made for a specific field with international quality certifications also offering a wide range of construction type and raw materials for every field where the safety of human life and property is of prime concern.

For certain type of products, Kaya Ropes has the type approval and inspection certificates from Turk Loydu. Additionally, Kaya Ropes offers inspection certificates from DNV-GL and Bureau Veritas upon special request from their clients.







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