

COTESI[®]

MARINE DIVISION



COTESI in the world

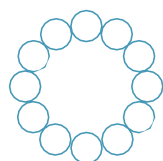


OFFSHORE AQUACULTURE



Movflex Sinking

Movflex is a composite rope that mixes high tenacity polyester yarns with high tenacity polyolefin yarns. This specific combination improves the rope breaking strength in a firm, round and non-rotational construction with sinking properties. Adding to this, its double/triple twisted cover yarns, provide excellent abrasion and heat resistance, while maintaining a flexibility level that assures good handling.



12 Strands



Major Features

- Exceptional abrasion and wear resistance even in wet conditions
- 18-20 % lighter than regular polyester ropes
- Very low water absorption
- Flexible and smooth, non-kinking and non-rotating
- Excellent UV resistance

Applications

Mooring
Lines

Towing
lines

Stretchers

Diameter		Size Circ.	Weight			Breaking Load		
mm	Inches	Inches	Ktex	Kg/100m	lbs/100ft	kgf	lbf	kN
24	1	3	345	34,5	23,2	14.174	31.248	139
26	1 1/32	3 1/4	411	41,1	27,6	17.131	37.767	168
28	1 1/8	3 1/2	477	47,7	32,1	20.088	44.287	197
30	1 1/4	3 3/4	559	55,9	37,6	22.332	49.233	219
32	1,3125	4	623	62,3	41,9	26.003	57.326	255
34	1 11/32	4 1/4	706	70,6	47,4	29.266	64.519	287
36	1,5	4,5	789	78,9	53,0	32.529	71.713	319
38	1 9/16	4 3/4	879	87,9	59,1	36.149	79.694	354,5
40	1,625	5	969	96,9	65,1	39.769	87.674	390
44	1,75	5,5	1.178	117,8	79,2	47.723	105.209	468
48	2	6	1.406	140,6	94,5	59.160	130.423	580
52	2,125	6,5	1.650	165,0	110,9	68.748	151.561	674
56	2,25	7	1.920	192,0	129,0	79.254	174.722	777
60	2,5	7,5	2.200	220,0	147,8	90.066	198.558	883
64	2,625	8	2.500	250,0	168,0	102.000	224.868	1.000
68	2,75	8,5	2.820	282,0	189,5	114.240	251.852	1.120
72	2,875	9	3.160	316,0	212,3	127.500	281.085	1.250

More diameters available by demand.

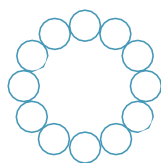
The technical characteristics stated are the result of a Cotesi development and are strictly indicative. We reserve the right to change them without prior notice. Tolerance in weights: $\pm 5\%$. Indicated breaking loads do not include any reduction in case of a rope with eye-spliced terminations. Produced and tested in accordance to the latest ISO standards.

- ✓ Raw Material: Polyester / Mixed Polyolefins (HT)
- ✓ Specific Gravity: 0,99
- ✓ Melting Point: 265°C / 165°C

- ✓ Elongation at % of BS:
 - 25 % 4,0%
 - 50 % 6,0%

Movflex Floating

Movflex is a composite rope that mixes high tenacity polyester yarns with high tenacity polyolefin yarns. This specific combination improves the rope breaking strength in a firm, round and non-rotational construction with floating properties. Adding to this, its double/triple twisted cover yarns, provide excellent abrasion and heat resistance, while maintaining a flexibility level that assures good handling.



12 Strands



Advantages

- Exceptional abrasion and wear resistance even in wet conditions
- 38-40 % lighter than regular polyester ropes
- Very low water absorption
- Flexible and smooth, non-kinking and non-rotating
- Excellent UV resistance

Applications

Mooring
Lines

Towing
Lines

Stretchers

Diameter		Size Circ.	Weight			Breaking Load		
mm	Inches	Inches	Ktex	Kg/100m	lbs/100ft	kgf	lbf	kN
24	1	3	266	26,6	17,9	10.707	23.605	105
26	1 1/32	3 1/4	317	31,7	21,3	12.848	28.326	126
28	1 1/8	3 1/2	368	36,8	24,7	15.092	33.271	148
30	1 1/4	3 3/4	430	43,0	28,9	17.335	38.217	170
32	1 5/16	4	478	47,8	32,1	19.375	42.713	190
34	1 11/32	4 1/4	542	54,2	36,44	21.882	48.108	214
36	1 1/2	4 1/2	606	60,6	40,7	24.269	53.504	238
38	1 9/16	4 3/4	693	69,3	46,6	28.450	62.721	279
40	1 5/8	5	780	78,0	52,4	32.529	71.713	319
44	1 3/4	5 1/2	980	98,0	65,9	39.259	86.550	385
48	2	6	1.175	117,5	78,9	46.091	101.612	452
52	2 1/8	6 1/2	1.400	140,0	94,0	54.351	119.822	533
56	2 1/4	7	1.600	160,0	107,5	62.611	138.031	614
60	2 1/2	7 1/2	1.800	180,0	121,0	70.973	156.465	696
64	2 5/8	8	2.070	207,0	139,1	81.068	178.721	795
68	2 3/4	8 1/2	2.330	233,0	156,5	91.367	201.426	896
72	2 7/8	9	2.700	270,0	181,4	101.870	224.581	999

More diameters available by demand.

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✓ Raw Material: Polyester / Mixed Polyolefins (HT)

✓ Specific Gravity: 0,99

✓ Melting Point: 265°C / 165°C

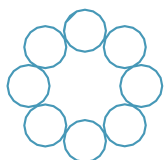
✓ Elongation at % of BS:

25% 4,0%

50% 6,0%

Movline Plus HBL

Movline Plus ropes are made from a high tenacity composite fiber extruded on a custom-built extrusion process. This extremely strong bi-polymer associated to an 8 strands plaited construction results on a rope with good wear resistance and exceptional gripping capabilities that are enhanced by the outer fuzzy surface developed in use which also protects the inner fibers against abrasion.



8 Strands



Advantages

- High abrasion resistance
- High strength floating line
- No water absorption
- Good UV resistance
- Non-kinking and non-rotating

Diameter		Size	Weight			Breaking Load		
mm	Inches	Inches	Ktex	Kg/100m	lbs/100ft	kgf	lbf	kN
24	1	3	288	28,8	19,4	13.400	29.541	131
26	11/32	31/4	341	34,1	22,9	15.600	34.392	153
28	11/8	31/2	394	39,4	26,5	17.800	39.242	175
30	11/4	33/4	453	45,3	30,4	20.250	44.643	199
32	15/16	4	511	51,1	34,3	22.700	50.044	223
36	11/2	41/2	641	64,1	43,1	28.300	62.390	278
40	1 5/8	5	791	79,1	53,2	34.900	76.940	342
44	1 3/4	5 1/2	977	97,7	65,7	41.700	91.931	409
48	2	6	1.145	114,5	76,9	48.900	107.804	480
52	2 1/8	6 1/2	1.340	134	90	56.500	124.559	554
56	2 1/4	7	1.560	156	104,8	64.900	143.078	636

More diameters available by demand.

- ✓ Raw Material: Mixed Polyolefin (HT)
- ✓ Specific Gravity: 0,94
- ✓ Melting Point: 165°C
- ✓ Elongation at % of BS: 25% 2,8%
- 50% 5,5%

Applications

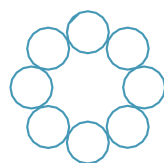
Mooring Lines

Anchor Lines

Tug and Towing Lines

Movline Plus

Movline Plus ropes are made from a high tenacity composite fiber extruded on a custom-built extrusion process. This extremely strong bi-polymer associated to an 8 strands plaited construction results on a rope with good wear resistance and exceptional gripping capabilities that are enhanced by the outer fuzzy surface developed in use, which also protects the inner fibers against abrasion.



8 Strands



Advantages

- High abrasion resistance
- High strength floating line
- No water absorption
- Good UV resistance
- Non-kinking and non-rotating

Applications

Mooring Lines

Anchor Lines

Tug and Towing Lines

Diameter		Size	Weight			Breaking Load		
mm	Inches	Inches	Ktex	Kg/100m	lbs/100ft	kgf	lbf	kN
24	1	3	261	26,1	17,5	10.605	23.380	104
26	1 1/32	3 1/4	306	30,6	20,6	12.339	27.202	121
28	1 1/8	3 1/2	355	35,5	23,9	14.174	31.248	139
30	1 1/4	3 3/4	408	40,8	27,4	16.112	35.519	158
32	1 5/16	4	464	46,4	31,2	18.253	40.240	179
36	1 1/2	4 1/2	587	58,7	39,4	22.842	50.357	224
40	1 5/8	5	725	72,5	48,7	27.940	61.597	274
44	1 3/4	5 1/2	877	87,7	58,9	33.345	73.512	327
48	2	6	1.040	104	69,9	39.259	86.550	385
52	2 1/8	6 1/2	1.220	122	82	45.683	100.713	448
56	2 1/4	7	1.420	142	95,4	52.414	115.550	514
60	2 1/2	7 1/2	1.630	163	109,5	59.450	131.062	583
64	2 5/8	8	1.860	186	125	66.996	147.698	657
68	2 3/4	8 1/2	2.100	210	141,1	75.153	165.682	737
72	2 7/8	9	2.350	235	157,9	83.617	184.341	820
80	3 1/4	10	2.900	290	194,9	101.462	223.682	995
88	3 5/8	11	3.510	351	235,9	121.347	267.519	1.190
96	4	12	4.170	417	280,2	142.761	314.728	1.400
104	4 1/4	13	4.900	490	329,3	165.195	364.186	1.620

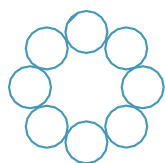
More diameters available by demand.

In accordance to ISO 10579:2009.

- ✓ Raw Material: Mixed Polyolefin (HT)
- ✓ Specific Gravity: 0,94
- ✓ Melting Point: 165°C
- ✓ Elongation at % of BS: 25% 2,8%
- 50% 5,5%

Deckline

Deckline ropes are a special economic blend that explores the abrasion resistance and tenacity of our Movline Plus bi-polymer. This cost-effective floating rope has good wear and abrasion resistance given by the outer Movline Plus cover and high breaking resistance when compared to other traditional PP ropes.



8 Strands



Advantages

- Cost effective compared to traditional PP ropes
- High abrasion resistance
- Good breaking strength
- Excellent UV resistance
- Non-kinking and non-rotating

Applications

Mooring
Lines

Tug and
Towing
lines

Certified by EIC, for aquaculture applications, to NS 9415 standard and in compliance with NYTEK23-regulation.

Diameter		Size Circ.	Weight			Breaking Load		
mm	Inches	Inches	Ktex	Kg/100m	lbs/100ft	kgf	lbf	kN
24	1	3	261	26,1	17,5	9.014	19.873	88
26	11/32	31/4	306	30,6	20,6	10.488	23.121	103
28	11/8	31/2	355	35,5	23,9	12.048	26.561	118
30	11/4	33/4	408	40,8	27,4	13.695	30.191	134
32	15/16	4	464	46,4	31,2	15.515	34.204	152
36	11/2	4 1/2	587	58,7	39,4	19.415	42.803	190
40	15/8	5	725	72,5	48,7	23.749	52.357	233
44	13/4	51/2	877	87,7	58,9	28.343	62.485	278
48	2	6	1.040	104	69,9	33.370	73.568	327
52	21/8	6 1/2	1.220	122	82	38.831	85.606	381
56	21/4	7	1.420	142	95,4	44.552	98.218	437
60	21/2	71/2	1.630	163	109,5	50.532	111.403	496
64	25/8	8	1.860	186	125	56.946	125.543	558
68	23/4	81/2	2.100	210	141,1	63.880	140.830	626
72	2 7/8	9	2.350	235	157,9	71.074	156.690	697
80	31/4	10	2.900	290	194,9	86.243	190.130	846
88	35/8	11	3.510	351	235,9	103.145	227.391	1.011
96	4	12	4.170	417	280,2	121.347	267.519	1.190
104	41/4	13	4.900	490	329,3	140.415	309.558	1.377
112	4 5/8	14	5.680	568	381,7	162.951	359.240	1.598
120	5	15	6.520	652	438,1	184.620	407.011	1.811
128	5 1/4	16	7.420	742	498,6	209.756	462.426	2.057
136	5 1/2	17	8.380	838	563,1	235.759	519.751	2.312

More diameters available by demand.

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- ✓ Raw Material: Mixed Polyolefin
- ✓ Specific Gravity: 0,93
- ✓ Melting Point: 165°C

- ✓ Elongation at % of BS:
 - 25% 2,8%
 - 50% 5,5%

Movline Plus HBL

Movline Plus ropes are made from a high tenacity composite fiber extruded on a custom-built extrusion process. This extremely strong bi-polymer and its balanced twisted construction result on a rope with good wear resistance and exceptional gripping capabilities that are enhanced by the outer fuzzy surface developed in use, which also protects the inner fibers against abrasion.



3 / 4 Strands



Advantages

- High abrasion and wear resistance
- High strength floating line
- No water absorption
- Good UV resistance

Diameter		Size	Weight			Breaking Load		
mm	Inches	Inches	Ktex	Kg/100m	lbs/100ft	kgf	lbf	kN
24	1	3	288	28,8	19,4	13.400	29.541	131
26	1 1/32	3 1/4	341	34,1	22,9	15.600	34.392	153
28	1 1/8	3 1/2	394	39,4	26,5	17.800	39.242	175
30	1 1/4	3 3/4	453	45,3	30,4	20.250	44.643	199
32	1 5/16	4	511	51,1	34,3	22.700	50.044	223
36	1 1/2	4 1/2	641	64,1	43,1	28.300	62.390	278
40	1 5/8	5	791	79,1	53,2	34.900	76.940	342
44	1 3/4	5 1/2	977	97,7	65,7	41.700	91.931	409

More diameters available by demand.

- ☑ Raw Material: Mixed Polyolefin (HT)
- ☑ Specific Gravity: 0,94 (floats)
- ☑ Melting Point: 165°C
- ☑ Elongation at % of BS: 25% 6,0%
50% 11,5%

Applications

Tie up and
Mooring
Lines

General
Deck
Lines

Towing
Lines

Certified by EIC, for aquaculture applications, to NS 9415 standard and in compliance with NYTEK23-regulation.

Movline Plus

Movline Plus ropes are made from a high tenacity composite fiber extruded on a custom-built extrusion process. This extremely strong bi-polymer and its balanced twisted construction result on a rope with good wear resistance and exceptional gripping capabilities that are enhanced by the outer fuzzy surface developed in use, which also protects the inner fibers against abrasion.



3 / 4 Strands



Advantages

- High abrasion and wear resistance
- High strength floating line
- No water absorption
- Good UV resistance

Applications

Tie up and
Mooring
Lines

General
Deck
Lines

Towing
Lines

Diameter		Size	Weight			Breaking Load		
mm	Inches	Inches	Ktex	Kg/100m	lbs/100ft	kgf	lbf	kN
6	1/4	3/4	16	1,6	1,1	689	1.520	7
8	5/16	1	29	2,9	1,9	1.193	2.630	12
10	3/8	1 1/4	45	4,5	3	1.835	4.047	18
12	1/2	1 1/2	65	6,5	4,4	2.590	5.710	25
14	9/16	1 3/4	88	8,8	5,9	3.467	7.643	34
16	5/8	2	116	11,6	7,8	4.436	9.779	43
18	3/4	2 1/4	147	14,7	9,9	5.557	12.252	54
20	13/16	2 1/2	181	18,1	12,2	6.751	14.882	66
22	7/8	2 3/4	219	21,9	14,7	8.066	17.782	79
24	1	3	261	26,1	17,5	9.463	20.862	93
26	1 1/32	3 1/4	306	30,6	20,6	10.911	24.054	107
28	1 1/8	3 1/2	355	35,5	23,9	12.543	27.651	123
30	1 1/4	3 3/4	408	40,8	27,4	14.276	31.473	140
32	1 5/16	4	464	46,4	31,2	16.010	35.295	157
34	1 11/32	4 1/4	525	52,5	35,3	17.845	39.341	175
36	1 1/2	4 1/2	587	58,7	39,4	19.783	43.612	194
38	1 9/16	4 3/4	656	65,6	44,1	21.822	48.108	214
40	1 5/8	5	725	72,5	48,7	23.861	52.605	234
44	1 3/4	5 1/2	877	87,7	58,9	28.246	62.271	277

More diameters available by demand.

In accordance to ISO 10572:2009.

- ☑ Raw Material: Mixed Polyolefin (HT)
- ☑ Specific Gravity: 0,94
- ☑ Melting Point: 165°C
- ☑ Elongation at % of BS: 25% 6,0%
50% 11,5%

General Information

Rope Construction

Raw Materials

Care & Use

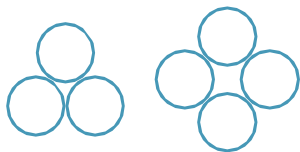
Glossary



Rope Construction

Rope construction plays an important role in resistance to wear and abrasion. Braided ropes have a round, smooth construction that tends to flatten out some-what on a bearing surface. This distributes the wear over a much greater area, as opposed to the crowns of a three-strand.

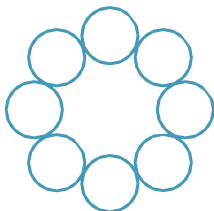
All ropes should be protected against sharp and abrasive surfaces. Wire ropes tend to score and gouge chocks and bitts creating cutting edges that can damage synthetic ropes. Weld beads on repaired capstands, fairleads, etc. are equally damaging unless dressed down smoothly.



3 / 4 Strands

3 OR 4 STRAND TWISTED

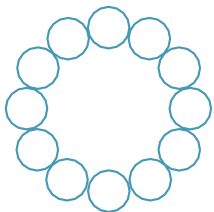
3 or 4 strands is the oldest and simplest rope construction, consisting of 3 or 4 twisted strands laid together. Twisted constructions may retain some torque, and therefore tend to kink up and to rotate under load. Twisted ropes are hard wearing and easily spliced.



8 Strands

8 STRAND BRAIDED

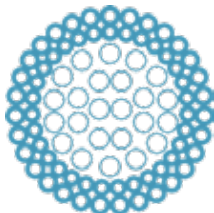
8 strand ropes also called square braided or plaited are constructed of left and right-hand laid strands to give a torque-free rope. They are easily spliceable and provide an excellent rope structure for mooring lines.



12 Strands

12 STRAND BRAIDED

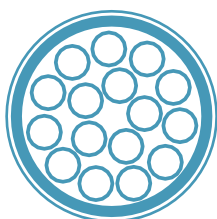
12 strand ropes are constructed of left and right-hand laid strands to give a torque-free balanced construction and its round shape provides excellent abrasion resistance due to a greater surface of contact and may offer higher breaking strengths over conventional constructions. They are easily spliceable and provide a good rope structure for mooring lines.



Double Braid

DOUBLE BRAID

Double Braided ropes are constructed of a braided cover over a braided core. Rope core and cover can be of different braided constructions being the most common one as a core braided 12 strand rope and as cover a 32 braids. As both cover and core play an important role in the rope breaking load, ratio between core and cover must not exceed 60% core.



Jacketed Ropes

JACKET ROPES

Jacket ropes consist on cover over a load bearing core. Most common jackets are of 32 braids whilst the core can be either of a braided or multi parallel strands construction. A load bearing core jacket rope must have a core ratio no less than 70% of the rope. Jacket is used to finalize the rope and protect it during use.

Raw Materials

Different Fibers, Different Characteristics, Different Results

Fiber	Polyamide (PA) 6 unid 6,6	PES (Polyester)	PP (Polypropilene)	PP (Polypropilene) multifilament	PE (Polyethilene)	HMWPE	Mixed (Polyolefin)	Sisal
Brandname	Perlon Nylon Nylsuisse Enkalon	Diolen Trevira Dacron Ersuisse	Leolene Arova	Hostalen Softlene Leolene	Lupolen Vestalen Wetalen	Dyneema	-	-
Tenacity (GF/Denier)	7,5 to 10,5	7,5 to 10,5	6 to 6,5	6 to 6,5 7,3 to 9,5	5,5 to 9,5	32,8 to 39,8	6,5 to 8,5	2 to 2,5
Specific Gravity Kg/DM3	1,14	1,38	0,91	0,91	0,96	0,96	0,94	1,38
Elongation at Break %	14 to 28	14 to 18	14 to 18	20 to 24 16 to 20	16 to 24	3 to 3,5	12 to 18	3 to 12
Creep Resistance	Moderate	Low	High	High	High	Moderate	High	Very Low
Shock Load Absorption	Excellent	Very Good	Very Good	Very Good	Fair	Excellent	Good	Poor
Melting Point C°	215 (PA) 255 (NYLON)	260	170	170	150	150	165	165
Water Absorption %	Yes	Yes	No	No	No	No	No	Yes
Dry Strength compared to wet Strength	85% - 90%	100%	100%	100%	105%	100%	100%	120%
UV Resistance	Good	Excellent	Fair	Fair	Fair	Excellent	Good	Good
Resistance to Abrasion	Very Good	Very Good	Fair	Fair	Fair	Good	Good	Fair

Table Based on the information provided by Cordage Institute Technical Service

EXTENSION AND ELASTICITY

Rope extension and elasticity are important features because they will establish rope behaviour in terms of peak loads. Load-extension characteristics of synthetic fiber ropes are non-linear and time dependent.

Several different components complete overall extension of a rope.

VISCOELASTIC EXTENSION

Viscoelastic extension is only recoverable some time after releasing the load. The performance of ropes subjected to occasional high loads will be significantly influenced by this viscoelastic component.

ELASTIC EXTENSION

Elastic extension is the immediately recoverable extension upon the release of the load and in a continuously working environment that dominates rope behaviour.

PERMANENT EXTENSION

Permanent extension is non-recoverable. It occurs when a new rope is first used or when subject to an unusually high load and is the result of the lay down of individual fiber components to their preferred positions. Continuous loading of some ropes can also lead to permanent extension.

Care & Use

STORAGE

Ropes should be stored on a dry and clean place, out of direct sunlight sources. When possible, it should be stored off the ground, away from metal walls or steam pipes, to allow adequate ventilation and away from chemicals of all types.

Never store rope on concrete or dirty floors, or drag over rough ground – dirt or sand picked up by the rope may cause cuttings on inside fibers during work. In case of long-term storage, ropes should be cleaned with fresh water to reduce salt crystals that may affect its life and efficiency.

HANDLING

When a rope is supplied in a coil it should always be uncoiled from the inside so that the first turn comes off from the bottom in a counter-clockwise direction. When supplied on reels, it must be allowed to freely rotate so that the rope can be drawn off the top layer. Never take rope from a reel lying on its side.

A wrong coil or uncoil on a twisted rope will provoke kinking and hockling. Three and four strand ropes should be coiled in a clockwise direction (in lay's direction) and uncoiled in a counterclockwise direction to avoid hockling and kinking.

Braided ropes can not be kinked or hockled, however, twist can be produced into ropes during service. Excessive twist may cause an imbalance between the right and left hand strands and should be removed as soon as possible by counter-rotating the rope when it is relaxed. The best method for storing both, braided and twisted ropes is in a eight figure fashion.

ROPE SAFETY

Never stand in line with a rope under tension. If a rope fails, it can draw back with sufficient force to cause serious injuries. Always ensure correct safety factors are being used.

ROPE INSPECTION

Avoid using ropes that show signs of aging and wear. Rope should be inspected regularly for evidence of chemical attack, kinking, and surface abrasion including major yarn or strand cuts and heat fusion indicated by glazed or heavy fuzzed areas.

Braided ropes should be examined along their entire length for areas of stiffening or inconsistent diameter, which can be a sign of internal damage or core failure due to overloading or severe shock loads. Both, outer and inner rope fibers contribute to the strength of the rope and when either is worn, rope is naturally weakened.

No type of visual inspection is a guarantee to an accurate determination of residual strength. When the fibers show wear in any given area, if limited to one small section, the damaged area may be cut out and re-spliced, otherwise the rope should be downgraded or replaced.

SPLICING AND KNOTS

The use of knots can reduce rope strength over fifty percent, so whenever possible splices should be used instead. Variations up to twenty five percent can occur with poor splicing or very short length. According to each situation, always take into consideration the corresponding reduction to the rope strength adjusting working loads accordingly. When splices are used, always use recommended splicing procedures of the manufacturer.

The length of an eye in a rope should be a minimum of three times, and preferably five times, the diameter of the item around which it is to be used. This will ensure that the angle between the two legs of the eye will not cause a tearing action to the throat of the eye. For instance, if the eye of a mooring line is passing around a 600 mm diameter bollard, then the eye should be a minimum of 1,80 meters.

BENDING RADIOUS

Sharp bends around any piece of equipment should be avoided as, under load, it decreases rope strength substantially and may cause premature damage and failure. The diameter on fixed pin terminations should be at least 3 times the rope diameter and on rotating sheave blocks, it should be 10 times the rope diameter for twisted ropes and 8 times the rope diameter for braided ropes

WORKING LOADS

Working loads are the loads that a rope is subjected to when in activity. They are normally expressed as a percentage of new rope strength and should not exceed 20% of published strengths (many industries are subject to special working loads regulations that supersede manufacturer's recommendation).

When severe overloaded or shock loads takes place, rope can suffer damages and consequently strength losses without any visible indication, which may weaken the rope causing it to break on next use, even if used under normal working loads. Sharp bends should be avoided as, under load, it decreases rope strength substantially and can cause premature failure.

Glossary

Double Braid Ropes

Double Braided ropes are constructed of a braided cover over a braided core. Rope core and cover can be of different braided constructions being the most common one as core a braided 12 strand rope and as cover a 32 braids. As both cover and core play an important role in the rope breaking load, ratio between core and core must not exceed 60% core.

Double Leg Sling (Grommet)

Loop of rope made by splicing the ends together. Often used as a lifting sling.

Elastic Elongation

Occurs immediately when a load is applied. Disappears as soon as the load is removed.

Elongation

The amount by which a rope stretches. This value is usually a % in length change.

Jacketed ropes

Jacketed ropes consist on cover over a load bearing core. Most common jackets are of 32 braids whilst the core can be either of a braided or multi parallel strands construction. A load bearing core jacket rope must have a core ratio no less than 70% of the rope. Jacket is used to finalize the rope and protect it during use.

LDBF - Line Design Break Force

This is the minimum force at which a new dry, spliced mooring line will break when tested according to MEG4. This applies to all mooring lines with exception of Nylon, which should be tested in a wet condition. MEG4 states that LDBF should have a value between 100% and 105% of the ship design.

MBL - Minimum Break Load

A value that indicates the minimum load or force to be achieved by the rope/line.

Seize

Similar to whipping, often used to bind 2 ropes together with smaller cordage, or to form an eye.

Single Leg Sling

Length of rope formed into a sling by having an eye spliced at each end of it.

Splicing

Method of joining a rope to itself or to another rope, or of producing an eye at the end of the rope. Splicing is done by interweaving the strands of the rope.

TDBF - Tail Design Breaking Force

Mooring tails experience more wear in service than mooring lines. For this reason, the Tail Design Breaking Force needs to be higher than the LDBF. The TDBF should be between 125% and 130% of the ship design MBL. The manufacturer states the TDBF on each mooring tail manufacturer's certificate and on the technical datasheet of the product. Please be aware that the TDBF is tested and defined in a wet condition. So, this is different from the situation for the LDBF.

Twist

"S" twist or "S" lay is a left hand lay. When in a vertical position, the spirals of the rope incline in the same direction as the center of the letter "S". "Z" Twist or "Z" lay is a right hand lay. When it is held in a vertical position, the spirals of the rope incline in the same direction as the center of the letter Z.

Whipping

Binding around the rope made with smaller diameter cordage. Used to tidy a rope end or to secure a splice.

3 or 4 Strand Ropes

Is the simplest rope construction. 3 or 4 twisted strands laid together. Twisted ropes are hard wearing and easily spliced.

8 Strand Ropes

Known as plaited ropes. They are composed of 8 strands grouped into 4 pairs. 2 of these pairs turn to the left and 2 pairs turn to the right.

12 Strand Ropes

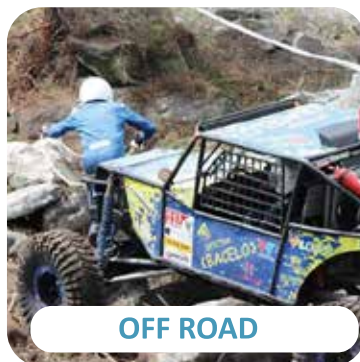
12 strand ropes give a rounder and smoother rope than 8 strands one. This is the ideal construction for rope cores and high strength braids. Like 8-braid ropes, 12-braid ropes are very easy to splice.



INDUSTRIAL



LIFTING



OFF ROAD



SAFETY ROPES

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