



Notice in use

1. Check with or without the surface damage, abrasion and kinks before use of ropes.
2. Do not apply the overload or impact load referred by the specification.
3. Do not use the ropes when they are exposed fire.
4. Make sure do not to hit ropes at the sharp corner. If it is not avoidable, patch the cushion materials at the corner.
5. Please avoid the use where chemicals applied.
6. Do not drag the rope on the ground or concrete.
7. Do not use the ropes relating directly to human life.



Control and Storage

1. When the rope gets wet, after drying in the shade and put into storage.
2. When the rope gets dirty, puts neutral detergent and remove stains by scrubbing with sponge, and after drying in the shade store it into storage.
3. Store the ropes at the cold and dark place where is low humidit, and do not expose direct sunlight.



Inspection standard

Use the ropes with daily and periodical checks.

1. Do not use the surface damaged ropes.
2. Do not use the fuzzed or extremely worn ropes.
3. Do not use the ropes whose fibers become friable.
4. Do not use the extremely defaced ropes.
5. Do not use the ropes which seem to be unusable.

UNITAKA



Actual producer



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ASHIMORI INDUSTRY CO., LTD.

Marine Ace SC

Marine Ace SC is a rope made of blended and twisted yarns of High-strength polypropylene and polyester and the rope is certified by Nippon Kaiji Kyokai (NK).

1. Strength

Marine Ace SC is featured with high tensile strength due to High-strength composite yarns.

2. Durability

Marine Ace SC has the excellent durability in cyclic load test for marine mooring ropes.

3. Abrasion

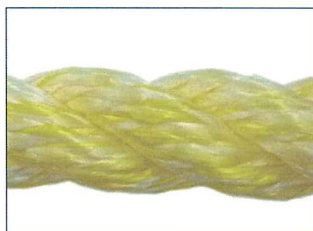
Due to the blended twisting polyester yarn, Marine Ace SC has the excellent performance against abrasion and strength reduction. It has long durability.

4. Operability

Marine Ace SC is excellent in operability, lightweight, low water absorption, and less degradation by aging.

5. Economy

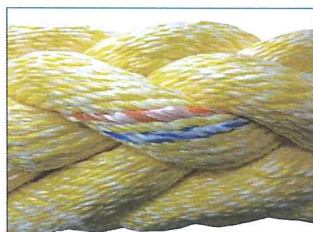
Marine Ace SC has excellent economical efficiency because of its light weight caused by its high strength yarns.



Marine Ace SC-3



Marine Ace SC-8



Marine Ace SC Queen Braid

Marine Ace SC Specification Table

■Marine Ace SC (3 strand, 8strand)

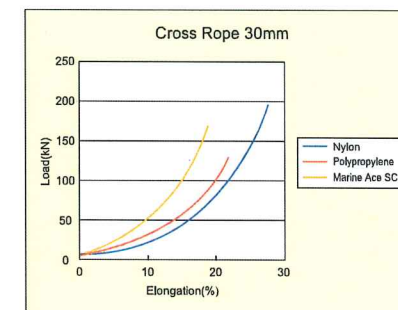
Diameter (mm)	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)
10	11.8	1.52	14.9
12	17.0	2.18	21.4
14	23.5	3.02	29.6
16	29.4	4.03	39.5
18	37.8	5.03	49.3
20	46.3	6.37	62.5
22	56.7	7.71	75.6
24	67.2	9.05	88.8
26	79.1	10.7	105
28	91.3	12.4	122
30	104	14.3	140
32	119	16.1	158
35	141	18.9	185
40	185	25.1	246
45	234	31.2	306
50	288	38.2	375
55	349	46.7	458
60	415	53.2	522
65	487	61.9	607
70	566	72.0	706
75	649	83.4	818
80	739	93.5	917
85	834	107	1044
90	935	117	1148
95	1042	130	1272
100	1155	144	1410
110	1398	170	1666
120	1664	203	1991

※Company standards and NK strength is the same

■Marine Ace SC Queen Braid (12 strand)

Diameter (mm)	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)
40	182	31.1	305
45	231	39.0	382
50	285	47.6	467
55	339	57.0	559
60	399	67.3	660
65	468	78.3	768
70	536	90.2	885
75	604	103	1010
80	697	116	1140
85	785	131	1280
90	878	146	1430
95	965	161	1580
100	1070	178	1740

※Company standards and NK standards are the same



■The statutory balance sheet of rope diameter (diameter ratio for Manila ropes)

rope	Manila	Marine AceSC 3strand,8strand	Marine AceSC Queen Braid	Nylon	polypropylene Multi・2types	Polyethylene	Nylon Twin Braid	Polyester/Nylon Twin Braid	Marine F-SC Twin Braid
Diameter ratio	100%	60%	55%	70%	75%	85%	60%	55%	55%

※Tensile strength and weight of above is central value of our company product.

Marine F-SC Twin Braid

Marine F-SC Twin Braid is a double braided structure rope developed by Ashimori with an unique technology cobining two excellent materials.

1. Excellent in mooring operability and floatable on water

Marine F-SC Twin Braid is floatable on sea-water and even on real water, with its specific gravity not more than 1.

2. Less strength reduction

PET/PP combination with less water influence, prevents from strength reduction in water.

3. Possible to reduce the diameter

The diameter can be 55% relative to Manila ropes as legally regulated ligament standard by the Nippon Kaiji Kyokai.



Marin F-SC Twin Braid

Marine F-SC Twin Braid Specification Table

■Marine F-SC Twin Braid

Diameter (mm)	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)
50	305	52.8	518
55	368	63.2	620
60	438	74.4	730
65	514	86.7	850
70	598	98.3	964
75	685	114	1120

※Company standards and NKstandards are the same

■Nylon Twin Braid

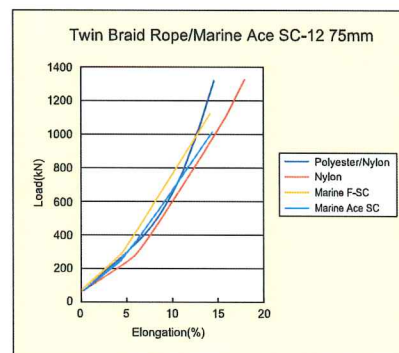
Diameter (mm)	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)
50	320	61.8	606
55	386	74.0	726
60	459	87.2	855
65	538	101	995
70	624	115	1130
75	719	135	1320

※Company standards and NKstandards are the same

■Polyester / Nylon Twin Braid

Diameter (mm)	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)
50	340	61.8	606
55	413	74.0	726
60	490	87.2	855
65	580	101	995
70	673	115	1130
75	771	135	1320

※Company standards and NKstandards are the same



■The statutory balance sheet of rope diameter (diameter ratio for Manila ropes)

rope	Manila	Marlen AceSC 3stand,8stand	Marlen AceSC Queen Braid	Nylon	polypropylene Multi・2types	Polyethylene	Nylon Twin Braid	Polyester/Nylon Twin Braid	Marie F-SC Twin Braid
Diameter ratio	100%	60%	55%	70%	75%	85%	60%	55%	55%

Marine Cosmo series

Marine Cosmo series consist of Marine Cosmo SP-8, Marine Cosmo SG and Marine Cosmo coated with Polyethylene. Every product is made of IZANASTM fibers which is ultra-high-strength polyethylene.

1. Strength

Marine Cosmo could realize super-high strength by using IZANASTM, and it could remarkable reduce the substantial diameter compared to conventional ropes.

2. Wear resistance

Our unique coating technology applied to IZANASTM causes our product high wear resistance property resin process technology, Marine Cosmo has excellent wear resistance.

3. Durability

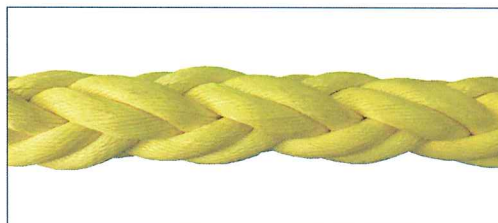
Marine Cosmo SP has a long life design as better strength, wear resistance and weather resistance compared to the conventional ropes.

4. Operability

Main material, IZANASTM is very light and floatable on water with a specific gravity of 0.97. Also, it has excellent operability property that no water-absorbency characteristics prevents hardening by the time degradation.

5. Coloring

Originally, IZANASTM is difficult to be colored due to no water absorbency. However our special unique technology could realize coloring Marine Cosmo in yellow.



Marine Cosmo SP-8

※IZANASTM is a trademark of TOYOBO.

Marine Cosmo Specification Table

■Marine Cosmo SP-8 (cross rope)
(SK-60 type)

Diameter (mm)	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)
16	28.0	10.1	99.0
18	35.0	13.4	131
20	44.0	16.1	158
22	54.0	18.8	184
24	64.0	22.7	223
26	75.0	26.9	264
28	87.0	30.9	303
30	100	36.0	353
32	110	40.0	392
34	120	43.9	431
36	140	50.0	490
38	160	56.0	549
40	180	65.0	637
45	220	82.0	804
50	280	99.9	980
55	340	120	1180
60	400	145	1420
65	480	172	1690
70	550	200	1960
75	640	225	2210
80	720	255	2500

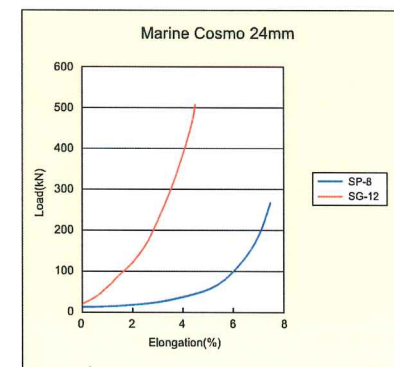
※This is Company standards

■Marine Cosmo SG (12 strand rope)
(SK-70 type)

Diameter (mm)	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)
16	30.5	22.6	222
18	39.7	27.9	274
20	48.8	33.8	331
22	58.0	40.0	392
24	70.2	46.7	458
26	82.4	53.9	529
28	94.6	61.5	603
30	110	69.5	682
32	119	75.2	737
34	137	87.0	853
36	156	96.4	945
38	174	106	1040
40	192	116	1140
42	210	126	1240
45	238	144	1410
48	256	155	1520
50	293	173	1700
55	357	205	2010
60	430	240	2350
65	503	276	2710
70	576	315	3090
75	659	357	3500
80	750	401	3930

※Marine Cosmo SG Queen blade has been certified for use with the same diameter and on the NK rules funicular.

※This is NK standards



■Marine Cosmo - PE-coated rope

Diameter (mm)	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)
20	46.6	10.1	99
30	103	26.9	264
40	178	50.0	490
50	280	85.7	840
60	400	124	1220

※This is Company standards

※Tensile strength and weight of above is central value of our company product.

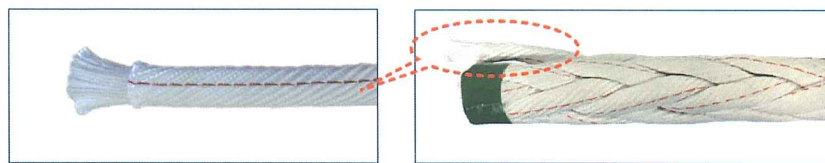
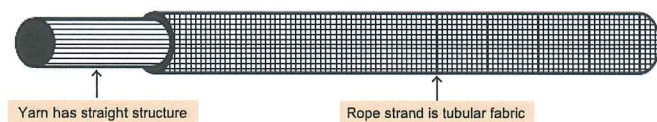
Straight Strand Rope (SSR)

SSR series has the unprecedented rope structure by utilizing our unique manufacturing technology.

Structure

By placing yarns as straight as possible, we could improve the utilization ratio of the original yarn strength. In order to retain the rope shape and to improve wear resistance, we applied a tubular fabric onto outer surface of straight bundle yarns.

And the bundle yarn is made by IZANAS™ fiber SK-60 for general type.



CHARACTERISTICS

1. High strength

Compared with the conventional rope structure, SSR can improve the strong utilization ratio of the original rope, and has the higher tensile strength by adoption of new rope structure.

2. Smaller diameter and lighter weight

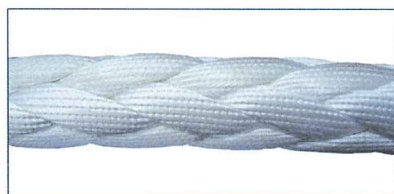
Compared with the conventional ropes, SSR has higher strength, smaller diameter and lighter weight. Improvement of operability contributes reducing cost and worker's burden.

3. Wear resistance

Wear resistance is extremely excellent due to the new structure adoption.



SSR-PT12



SSR-HP12

※IZANAS™ is a trademark of TOYOBO.

SSR Specification Table

■SSR-PT12 (Polyester)

Diameter (mm)	Weight (kg/200m)	Tensile strength (kN)
20	61.8	119
22	74.7	144
24	88.9	169
26	104	200
28	121	231
30	139	266
34	178	345
38	223	429
40	247	451
45	313	603
50	386	741
55	467	899
60	556	1070
65	652	1250
70	757	1450
75	869	1680
80	988	1910
85	1120	2150
90	1250	2400
95	1390	2680
100	1540	2970

※Company standards and NK standards is the same

■SSR-HP12 (IZANAS™ SK-60)

Diameter (mm)	Weight (kg/200m)	Tensile strength (kN)
20	55.8	331
22	65.8	392
24	75.8	458
26	87.3	529
28	97.3	603
30	110	682
34	137	853
38	167	1040
40	185	1140
45	228	1410
50	276	1700
55	325	2010
60	382	2360
65	454	2780
70	525	3140
75	601	3600
80	716	4300
85	836	5100
90	956	5900
95	1010	6700
100	1240	7650

※Company standards and NK standards is the same

※Tensile strength and weight of above is the average value of our company product.

New Line rope standard table

Ashimori Industry Co., Ltd.

Diameter (mm)	N.K			Three strand			Cross		
	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)
2	—	—	—						
3	—	—	—						
4	—	—	—						
5	—	—	—	2.49	0.35	3.43			
6	—	—	—	3.60	0.49	4.81			
8	—	—	—	6.37	0.85	8.34	6.79	0.85	8.34
9	—	—	—	8.03	1.04	10.2	8.30	1.05	10.3
10	10.0	1.30	12.7	9.97	1.03	10.1	9.81	1.28	12.6
12	14.0	1.80	17.7	14.1	1.80	17.7	14.0	1.81	17.8
13									
14	19.0	2.40	23.5	19.1	2.42	23.7	19.2	2.42	23.7
15									
16	24.0	3.00	29.4	24.9	3.06	30.0	24.4	3.07	30.1
18	31.0	3.80	37.3	31.6	3.88	38.0	31.0	3.82	37.5
20	38.0	4.50	44.1	39.1	4.65	45.6	39.9	4.64	45.5
22	47.0	5.60	54.9	47.4	5.64	55.3	48.8	5.61	55.0
24	55.0	6.50	63.7	55.4	6.60	64.7	55.4	6.53	64.0
25									
26	64.0	7.50	73.5	65.1	7.52	73.7	66.5	7.56	74.1
28	74.0	8.50	83.4	76.2	8.80	86.3	75.3	8.67	85.0
30	85.0	9.90	97.1	87.3	10.1	99.0	86.4	9.95	97.6
32	97.0	11.0	107.9	99.7	11.2	110	99.7	11.2	110
34				111	12.4	122	111	12.5	123
35	116	13.0	127	116	13.0	12.7	118	13.3	130
36				125	14.0	137	126	13.9	136
38				139	15.5	152	137	15.4	151
40	152	16.7	164	152	17.1	168	151	17.0	167
42				166	18.6	182	166	18.5	181
44									
45	191	20.7	203	189	21.2	208	192	21.1	207
46									
48									
50	236	25.5	250	236	25.6	251	236	25.6	251
55	286	30.0	294	286	31.6	310	288	30.8	302
60	340	35.5	348	339	36.0	353	340	35.9	352
65	399	41.0	402	399	41.8	410	399	41.6	408
70	463	47.0	461	453	47.4	465	452	47.7	468
75	531	53.5	525	524	54.8	537	523	54.5	534
80	605	60.5	593	594	62.2	610	594	61.1	599
85	683	68.0	667	669	70.0	686	676	68.6	673
90	765	75.0	735	752	76.0	745	753	76.5	750
95	853	83.0	814	839	84.8	832	842	84.4	828
100	945	91.5	897	927	93.7	919	931	92.2	904

※Tensile strength and weight of above is central value of our company product.

Nylon rope standard table

Ashimori Industry Co., Ltd.

Diameter (mm)	N.K			Three strand			Cross		
	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)	Weight (kg/200m)	Tensile strength (ton)	Tensile strength (kN)
2	—	—	—	0.48	0.09	0.88	0.43	0.08	0.78
3	—	—	—	1.20	0.23	2.26	1.30	0.25	2.45
4	—	—	—	1.92	0.37	3.63	2.17	0.40	3.92
5	—	—	—	2.88	0.55	5.39	3.04	0.56	5.49
6	—	—	—	4.32	0.81	7.94	4.34	0.79	7.75
8	—	—	—	7.92	1.27	12.5	7.81	1.41	13.8
9	—	—	—	10.1	1.86	18.2	10.4	1.87	18.3
10	12.0	1.85	18.1	12.2	2.27	22.3	12.4	2.24	22.0
12	18.0	2.80	27.5	17.5	3.16	31.0	17.8	3.14	30.8
13				20.5	3.69	36.2	21.8	3.83	37.6
14	24.0	3.73	36.6	23.4	4.21	41.3	23.8	4.18	41.0
15				27.8	4.93	48.3	27.2	4.60	45.1
16	31.0	4.78	46.9	30.7	5.44	53.3	31.7	5.48	53.7
18	40.0	5.94	58.3	39.5	6.91	67.8	39.6	6.75	66.2
20	49.0	7.23	70.9	49.7	8.70	85.3	49.5	8.44	82.8
22	59.0	8.63	84.6	58.5	10.0	98.1	59.4	10.0	98.1
24	70.0	10.2	100	69.0	11.7	115	72.3	12.0	118
25				75.6	12.7	125	76.3	12.5	123
26	83.0	11.8	116	80.1	13.4	131	84.3	13.8	135
28	96.0	13.5	132	95.7	15.7	154	96.3	15.5	152
30	109	15.4	151	107	17.6	17.3	108	17.4	171
32	125	17.3	170	122	19.8	194	126	20.0	196
34				138	22.1	217	140	22.0	216
35	149	20.5	201	151	23.7	232	153	23.5	230
36				154	24.2	237	159	24.4	239
38				172	26.7	262	177	26.8	263
40	195	26.3	258	190	30.0	294	195	30.1	295
42				211	32.9	323	220	33.5	329
44				230	35.7	350	236	35.9	352
45	246	32.7	321	241	36.9	362	244	36.5	358
46				252	38.6	379	252	37.7	370
48				278	42.0	412	285	41.8	410
50	304	39.8	390	301	45.4	445	305	44.8	439
55	368	47.5	466	369	54.6	535	376	54.6	535
60	438	55.8	547	436	64.7	634	448	64.9	636
65	513	64.8	635	512	74.6	732	519	73.7	723
70	596	74.3	729	595	86.7	850	612	87.0	853
75	683	84.5	829	685	98.1	962	698	97.2	953
80	777	95.3	935	780	112	1094	797	111	1090
85	874	107	1049	880	124	1213	897	123	1210
90	980	119	1167	985	139	1359	997	137	1344
95	1092	131	1285	1096	151	1484	1111	150	1467
100	1210	144	1412	1217	168	1648	1239	167	1638

※Tensile strength and weight of above is central value of our company product.