

11. Fibre Rope

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11.1 General Purpose



Superdan 3 Strand

Because Superdan rope is manufactured from high tenacity yarns, Superdan offers easy handling, high strength and excellent abrasion resistance.

Advanced Durability

Excellent anti-abrasion properties contribute to longer working life. (over 10% compared to standard ropes)

High ultra-violet light resistance.

Super Strength

50% better breaking strength compared to BS and ISO Standards and specifications.

A cost effective super strength rope.

Variety of Applications

A multi purpose rope ideal for general industrial, marine and commercial fishing applications.

An excellent rope for deep sea pot rope.

Specifications

Material: High tenacity polyolefin fiber

Specific Gravity: 0.94 (Float)

Melting Point: 165°C

Water Absorption: None

UV Light Resistance: Good

Abrasion Resistance: Good



Product Specifications

Name	ITEM #	Size (mm)	Standard Coil Length (m)	Breaking Load (kg)	Weight per m
Rope Superdan 6mm 3 Strand Polypropylene Sea Green	17849	6	250	680	0.0175
Rope Superdan 8mm 3 Strand Polypropylene Sea Green	13483	8	250	1200	0.03
Rope Superdan 9mm 3 Strand Polypropylene	12735	9	250	1500	0.038
Rope Superdan 10mm 3 Strand Polypropylene Sea Green	19245	10	250	1800	0.045
Rope Superdan 12mm 3 Strand Polypropylene Sea Green	16177	12	250	2700	0.066
Rope Superdan 14mm 3 Strand Polypropylene	17490	14	250	3600	0.091
Rope Superdan 16mm 3 Strand Polypropylene	11968	16	250	4500	0.116
Rope Superdan 18mm 3 Strand Polypropylene Sea Green	14938	18	250	5800	0.149
Rope Superdan 20mm 3 Strand Polypropylene	17524	20	250	6900	0.179
Rope Superdan 22mm 3 Strand Polypropylene	10137	22	250	8400	0.22
Rope Superdan 24mm 3 Strand Polypropylene	11152	24	250	9900	0.26
Rope Superdan 28mm 3 Strand Polypropylene	16589	28	250	13200	0.355
Rope Superdan 32mm 3 Strand Polypropylene	10244	32	250	16800	0.46



Ice Blue 3 Strand

Ice Blue is a high tenacity polyethylene rope with high strength and excellent abrasion resistance (15% better breaking strength compared to Australian Standards). The rope is hairy which enables good grip and has high ultra-violet light resistance making it useful in numerous applications in the fishing and marine industries and also for lashing and general purpose use.



Product Specifications

Name	ITEM #	Size (mm)	Standard Coil Length (m)	Breaking Load (kg)	Weight per m
Rope Ice Blue 4mm Staple Polyethylene Film	16331	4	250	240	0.01
Rope Ice Blue 6mm Staple Polyethylene Film	18232	6	250	435	0.018
Rope Ice Blue 8mm Staple Polyethylene Film	12225	8	250	716	0.031
Rope Ice Blue 10mm Staple Polyethylene Film	18688	10	250	1080	0.049
Rope Ice Blue 12mm Staple Polyethylene Film	15660	12	250	1460	0.07
Rope Ice Blue 14mm Staple Polyethylene Film	11003	14	250	1650	0.096
Rope Ice Blue 16mm Staple Polyethylene Film	15278	16	250	2400	0.125
Rope Ice Blue 18mm Staple Polyethylene Film	13359	18	250	2980	0.16
Rope Ice Blue 20mm Staple Polyethylene Film	16319	20	250	3640	0.2
Rope Ice Blue 22mm Staple Polyethylene Film	11703	22	250	4310	0.24
Rope Ice Blue 24mm Staple Polyethylene Film	12018	24	250	5060	0.28
Rope Ice Blue 28mm Staple Polyethylene Film	14992	28	250	6840	0.38

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General Information

ICE BLUE ROPE TO AS 4345

Ice Blue is a high tenacity polyethylene rope with high strength and excellent abrasion resistance (15% higher breaking strength than PE Silver Staple). Like silver staple the rope is hairy which enables good grip and has high ultra-violet light resistance making it useful in numerous applications for lashing and general purpose.

Fibre rope has been common in the transport industry for many years and is still widely used. Ice Blue rope is only recommended on relatively light loads and is not suitable for heavy loads. Rope is usually attached to the tie off rails and tensioned using knots. To be effective the knot must be correctly tied. Be aware that rope is susceptible to relaxing during transport as the load shifts or settles.



Item#	Size (mm)	Description	Breaking Load (kg)	Coil Length (metres)
18232	6	Ice Blue Rope	435	250
12225	8	Ice Blue Rope	716	250
18688	10	Ice Blue Rope	1,080	250
15660	12	Ice Blue Rope	1,460	250
11003	14	Ice Blue Rope	1,650	250
15278	16	Ice Blue Rope	2,400	250

Inspection Before Use

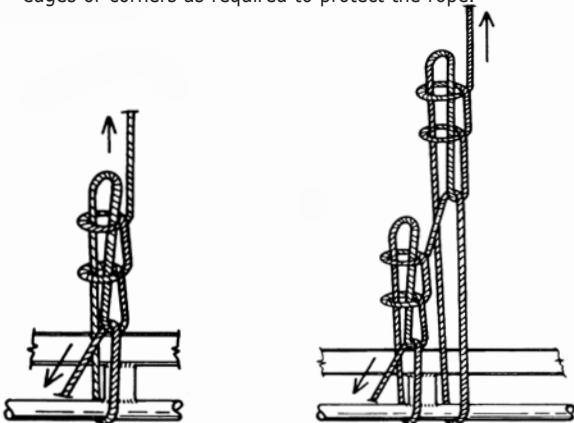
Rope should always be inspected prior to use to ensure there is no excessive wear, abrasion or cuts that could cause the rope to break prematurely.

Care In Use

WARNING

- Rope should always be used in line with good lashing and tie down practice.
- Failure to use and tie off ropes correctly could result in property damage, serious injury or death.

1. The most important aspect of using ropes for tie down purposes is the tie off (knot). There are many types of knot and the user should ensure they are competent at tying a suitable knot for any given tie off application.
2. Do not use ropes that have excessive wear, abrasion or are frayed or cut.
3. Care should be taken if lashing down cargo with rough or sharp corners or edges as this could prematurely wear or cut the rope. Use padding or load corner protectors on sharp edges or corners as required to protect the rope.

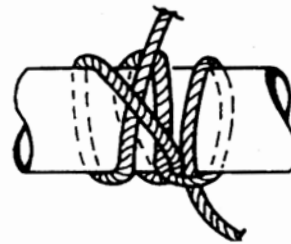


The single or double "truckies hitch" (sheepshank). The double hitch provides about twice the tension of the single hitch.

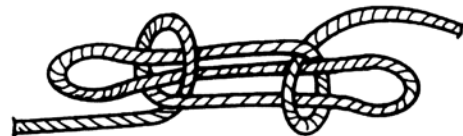
Knots commonly used are shown below.



Round turn & two half hitches



Clove hitch & half hitch



Sheepshank

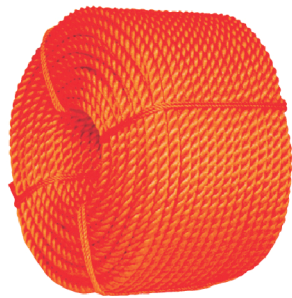


Single sheet bend



Polyethylene 3 Strand

Polyethylene rope has positive buoyancy (floats) and its tensile strength remains the same dry or wet. Polyethylene rope is slightly heavier than Polypropylene rope and it has lower breaking strength compared to a high tenacity Polypropylene rope such as Superdan. Polyethylene ropes generally have superior abrasion resistance to Polypropylene rope. Polyethylene rope is commonly used in commercial fishing and industrial applications.



Product Specifications

Name	ITEM #	Size (mm)	Standard Coil Length (m)	Breaking Load (kg)	Weight per m
Polyethylene 3 Strand Rope 32mm		32	250	10700	0.525
Polyethylene 3 Strand Rope 30mm		30	250	9500	0.46
Polyethylene 3 Strand Rope 28mm		28	250	8200	0.393
Polyethylene 3 Strand Rope 26mm		26	250	6900	0.328
Polyethylene 3 Strand Rope 24mm		24	250	6100	0.295
Polyethylene 3 Strand Rope 22mm		22	250	5100	0.243
Polyethylene 3 Strand Rope 20mm		20	250	4300	0.2
Polyethylene 3 Strand Rope 18mm		18	250	3500	0.161
Polyethylene 3 Strand Rope 16mm		16	250	2800	0.128
Polyethylene 3 Strand Rope 14mm		14	250	2100	0.095
Polyethylene 3 Strand Rope 12mm		12	250	1500	0.072
Polyethylene 3 Strand Rope 10mm		10	250	1100	0.049
Polyethylene 3 Strand Rope 08mm		8	250	700	0.033
Polyethylene 3 Strand Rope 06mm		6	250	400	0.018
Polyethylene 3 Strand Rope 04mm		4	250	200	0.008



Superdan 8 Strand

Because Superdan rope is manufactured from high tenacity yarns, Superdan offers easy handling, high strength and excellent abrasion resistance.

Advanced Durability

Excellent anti-abrasion properties contribute to longer working life. (over 10% compared to standard ropes)

High ultra-violet light resistance.

Super Strength

50% better breaking strength compared to BS and ISO Standards and specifications.

A cost effective super strength rope.

Variety of Applications

A multi purpose rope ideal for general industrial, marine and commercial fishing applications.

An excellent rope for deep sea pot rope.

Specifications

Material: High tenacity polyolefin fiber

Specific Gravity: 0.94 (Float)

Melting Point: 165°C

Water Absorption: None

UV Light Resistance: Good

Abrasion Resistance: Good



Product Specifications

Name	ITEM #	Size (mm)	Standard Coil Length (m)	Breaking Load (kg)	Weight per m
Superdan 8 Strand Rope 40mm		40	220	28400	0.791
Superdan 8 Strand Rope 44mm		44	220	33900	0.977
Rope Superdan 48mm 8 Strand Braided Polypropylene	11649	48	220	39800	1.145
Superdan 8 Strand Rope 52mm		52	220	46000	1.34
Rope Superdan 56mm 8 Strand Braided Polypropylene	17939	56	220	52800	1.56
Superdan 8 Strand Rope 60mm		60	220	60500	1.79
Rope Superdan 64mm 8 Strand Braided Polypropylene	10983	64	220	68200	2.036
Superdan 8 Strand Rope 68mm		68	220	77600	2.3
Rope Superdan 72mm 8 Strand Braided Polypropylene	14817	72	220	85800	2.58
Rope Superdan 80mm 8 Strand Braided Polypropylene	16688	80	220	105600	3.19
Superdan 8 Strand Rope 88mm		88	220	127600	3.86
Rope Superdan 96mm 8 Strand Braided Polypropylene	10568	96	220	149600	4.59
Superdan 8 Strand Rope 104mm		104	220	175600	5.36
Superdan 8 Strand Rope 112mm		112	220	203700	6.23
Superdan 8 Strand Rope 120mm		120	220	233800	7.18



Superflex 8 Strand

Due to a technically reinforced composition of high tenacity Superdan and polyester yarns, Superflex has superior strength when compared with a Superdan rope. This when combined with unique double construction cover yarns, provides superior abrasion resistance when compared to conventional constructed ropes. This has been verified through frequent and repeated use in mooring applications.

This unique composition and construction produces a rope with extreme low elongation whilst maintaining stability and safety when the rope is overloaded. In addition, Superflex retains its properties even after long periods underwater.

High ultra-violet stabilization.

Popular applications are mooring, towing and anchor lines

Specifications

Superdan and Polyester fibre

Specific Gravity: 0.99 (Float)

Melting Point: 165°C/265°C

Water Absorption: 0-1%

Elongation at break: 18-20%



Product Specifications

Name	ITEM #	Size (mm)	Standard Coil Length (m)	Breaking Load (kg)	Weight per m
Superflex 8 Strand 24mm		24	220	12500	0.335
Superflex 8 Strand 28mm		28	220	16600	0.46
Superflex Rope 32mm 8 Strand	14188	32	220	21300	0.595
Superflex Rope 36mm 8 Strand Braided	13252	36	220	26500	0.742
Rope Superflex 40mm 8 Strand Polyester	16284	40	220	32000	0.915
Superflex 8 Strand 44mm		44	220	38000	1.09
Superflex 8 Strand 52mm		52	220	51000	1.5
Superflex 8 Strand 56mm		56	220	59000	1.79
Superflex 8 Strand 60mm		60	220	67000	2.005
Superflex 8 Strand 64mm		64	220	75000	2.26
Superflex 8 Strand 68mm		68	220	84000	2.54
Rope Superflex 72mm 8 Strand Polyester	16005	72	220	94000	2.84
Superflex 8 Strand 80mm		80	220	114000	3.49

Superflex 8 Strand 88mm	88	220	138000	4.2
Superflex 8 Strand 96mm	96	220	163000	5
Superflex 8 Strand 112mm	112	220	221000	6.74
Superflex 8 Strand 120mm	120	220	253000	7.74

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Double Braid Polyester

Nobles Double Braid Polyester rope is manufactured from an open weave braided polyester core with a tightly woven braid polyester cover. The core and cover work together in unison through improved "Fibre Orientation" achieved by positioning the fibres of the braid to run as close as possible to parallel with the force along the rope. Nobles Double Braid Polyester rope is available in varying reel lengths and varying fleck colour combinations.



Product Specifications

Name	ITEM #	Size (mm)	Breaking Load (kg)	Weight per m
Rope 6mm Racing Braided	18128	6	700	0.025
Rope 8mm Racing Braided	12995	8	1450	0.042
Rope 10mm Racing Braided	15840	10	2450	0.08
Rope 12mm Racing Braided	10265	12	3200	0.126
Rope 14mm Racing Braided	15929	14	4200	0.134
Rope 16mm Racing Braided	10886	16	4800	0.161

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General Information

FIBRE ROPES

FIBRE	CONSTITUTION	DESCRIPTION	REACTION TO HEAT	SENSITIVE TO	RESISTANT TO	% ELONGATION		SPECIFIC GRAVITY
						DRY	WET	
TERYLENE, DACRON, ETC.	Polyester	Continuous filament and staple, abrasion resistance second to Nylon, excellent resistance to sunlight, weathering and bacteria.	Melts at 260°C, leaves hard balls and has an aromatic smell.	Hot caustic soda, concentrated ammonia, concentrated sulphuric acid.	Organic mineral and nitric acids, oxidising agents, dilute alkali.	Approx. 35% ext. causes rupture.	Approx. 35% ext. causes rupture.	1.38
						Wet strength equal to dry.		
VINYLOX, KURALON, ETC.	Polyvinyl Alcohol	Continuous filament and staple, resistant to abrasion and bacteria, quite good resistance to sunlight although loses strength from prolonged exposure.	Will not burn yellows at 218°C melts at 235°C.	Concentrated mineral acids.	Common solvents and alkalis.	Approx. 40% ext. causes rupture in rope form.	Strength about 55-60% of dry strength.	1.30
POLYPROPYLENE	Polypropylene	Continuous filament and film. High strength, toughness and good resistance to sunlight if UV inhibitors are used. Unaffected by changes in relative humidity and water.	Shrinks rapidly from flame, curls and melts, ignites with difficulty. Has low melting point 166°C.	Bleaching agents (sodium hypochlorite), cleaning agents (trichlorethylene).	Most alkalis and acids, solvents and oxidising agents.	Rope 25-30% ext. causes rupture.	Same as dry.	0.91
						Wet strength equal to dry.		
POLYETHYLENE Tanikalon	Polyethylene	Continuous filament, very tough, fungi resistant.	Melts, shrinks and curls from flame then softens at 110°C. Burns rapidly.	Xylene at 93°C Deteriorates on very long exposure to sunlight or heat. Inhibitors may prevent this from happening. Hot nitric or sulphuric acids.	Most acids, alkalis, grease, oil, organic solvents and water.	Rope Approx. 50% ext. causes rupture.	Same as dry.	0.95
						Wet strength equal to dry.		
MAN-MADE FIBRES NYLON, PERLON, ETC.	Polyamide (synthetic)	Continuous filament and staple, resistant to abrasion and bacteria. Transparent strong fibre of circular cross-section.	Will not burn. Softens at 235°C, melts at 250°C, leaves a bead and has celery smell.	Phenols, strong acids, concentrated formic acid, sunlight.	Acetone, organic solvents, mineral and/or organic acids.	Nylon 6 23-42% ext. causes rupture.	27-34% ext. causes rupture.	1.14
						Wet strength approx. 10% less than dry.		



General Information

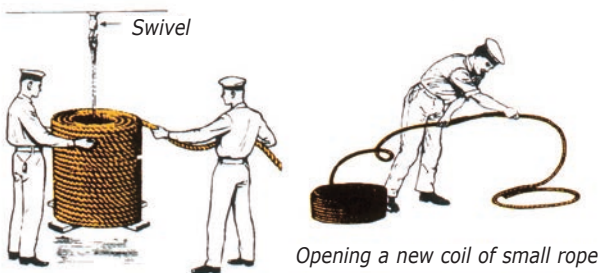
FIBRE ROPES

Inspection

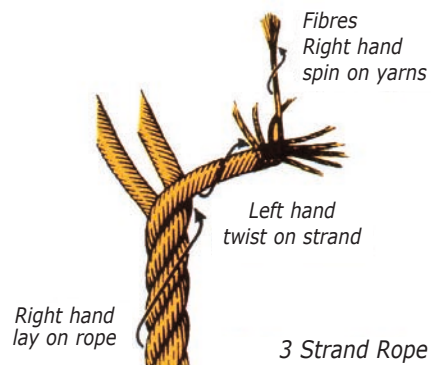
Rope should always be inspected prior to use to ensure there is no excessive wear, abrasion or cuts that could cause the rope to break prematurely.

Care In Use

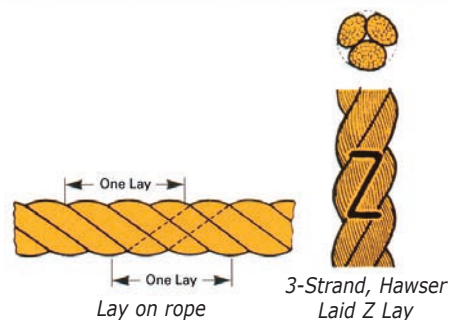
1. A coil should be suspended and the rope taken from the outside of the coil by rotating it. In this way "turn" in the rope will be avoided.



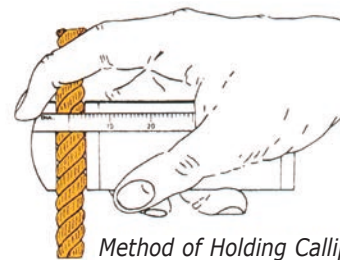
2. Where a proper mandrel or turntable is not available, it is advisable to uncoil the rope from the centre of the coil. In this way the protective wrappings may be retained around the coil until the complete coil has been withdrawn. For the normal right hand lay rope ("Z" laid), uncoiling must always take place in an anti-clockwise direction. (This applies whether uncoiling from inside or outside of the coil). Clockwise uncoiling of rope will insert twist and increase the danger of kinking.
3. Before cutting the desired length of rope, apply whippings close to each side of the intended cut. Failure to observe this precaution could easily render a cut length unsuitable for its intended purpose because of excessive unlaying of the rope.
4. Store ropes in a well ventilated dry atmosphere away from heat, strong sunlight and corrosive substances.
5. Avoid contact with chemicals unless the rope has been supplied in a material resistant to a particular chemical environment.
6. Don't drag ropes over sharp, rough or dirty surfaces as abrasive particles can penetrate the rope and damage the fibres.
7. Avoid the build-up of excessive turn. Kinks cause permanent damage and loss of strength. Work excessive turn over end of rope. Never load rope to remove kinks.
8. Avoid knotting a rope for the purpose of forming an eye. Splice the rope in the normal manner. Knots can reduce a rope's strength by up to 50%.
9. When used on pulleys, ensure pulley diameter is at least 5 times rope diameter. Furthermore, the groove profile should support approximately one third of the rope's circumference. Incidence of rope wear and distortion will increase if these suggestions are not adhered to.
10. Avoid unnecessary chaffing. Protect any part of the rope in contact with sharp edges or rough bearing surfaces.
11. Never overload a rope. The load applied should never exceed the Minimum Breaking Force, or in the case of lifting equipment, the Working Load Limit. Avoid shock loads.



3 Strand Rope

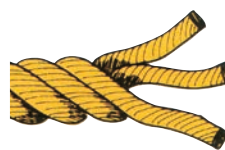


3-Strand, Hawser Laid Z Lay



Method of Holding Calliper

Three Strand Rope



Three strands twisted or laid together to form the rope. This construction is still the most commonly encountered. Available in sizes 3mm diameter upwards.

Eight Strand Rope



Balance is achieved by plaiting four left hand and four right hand strands. This results in a tough, kink resistant rope providing increased flexibility wet or dry. Available in sizes 16mm diameter and above.

12 Strand Rope



12 strand rope generally has superior strength to the equivalent rope in 3 or 8 strand. 12 strand rope also has excellent abrasion resistance, is more flexible, does not rotate or kink and is easy to coil and handle. 12 strand rope is fully splicable and is available in 1 ply or 2 ply strand.

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11.2 High Performance



Supermax 12 Strand

SuperMax is the latest development in ultra high molecular weight polyethylene (UHMWPE) fibre braided rope. SuperMax has the strongest tensile strength per weight and is stronger than wire rope of the same diameter. SuperMax is treated with a unique coating and special heat treatment process to enhance its anti-abrasion characteristics.

12 Strand Construction

Melting point: 150°C

Specific Gravity: 0.97 (Float)

Elongation at break: 4-5%

Water Absorption: None

UV resistance: Good

Characteristics

Maximum strength to weight ratio, strength is comparable to steel wire rope

Lowest elongation

Longer life and easy handling

Superior abrasion resistance

Non-kinking and non-rotational

Easy to splice

Applications

Mooring Lines

Anchor Lines

Lifting Sling & Nets

Towing Rope

Heavy Winch Rope

Tug Rope



Product Specifications

Name	ITEM #	Size (mm)	Breaking Load (kg)	Weight per m
Supermax Rope 6mm 12 Strand Braided	14206	6	4200	0.023
Supermax Rope 8mm 12 Strand Braided	10002	8	6700	0.039
Supermax Rope 9mm 12 Strand Braided	18819	9	8400	0.048
Supermax Rope 10mm 12 Strand Braided	14052	10	10800	0.059
Supermax Rope 11mm 12 Strand Braided	12135	11	13600	0.078
Supermax Rope 12mm 12 Strand Braided	10347	12	16500	0.095
Supermax Rope 14mm 12 Strand Braided	14662	14	22000	0.128
16mm 12 STRAND BRAIDED SUPERMAX ROPE	21442	16	27500	0.16
Supermax Rope 18mm 12 Strand Braided	10196	18	35000	0.208
20mm 12 STRAND BRAIDED SUPERMAX ROPE	21066	20	41500	0.255
Supermax Rope 22mm 12 Strand Braided	10389	22	50000	0.305
Supermax Rope 24mm 12 Strand Braided	17235	24	58000	0.358
Rope Supermax 12 S/T Braided 26mm	24944	26	66000	0.41

Supermax Rope 32mm 12 Strand Braided	12277	32	88500	0.57
SuperMax 12 Strand 34mm		34	96000	0.625
SuperMax 12 Strand 36mm		36	104000	0.68
SuperMax 12 Strand 38mm		38	112000	0.74
SuperMax 12 Strand 40mm		40	127000	0.84
SuperMax 12 Strand 42mm		42	140000	0.93
SuperMax 12 Strand 44mm		44	152000	1.02
SuperMax 12 Strand 46mm		46	165000	1.11
SuperMax 12 Strand 48mm		48	179000	1.21
SuperMax 12 Strand 50mm		50	193000	1.31
SuperMax 12 Strand 52mm		52	206000	1.41
SuperMax 12 Strand 56mm		56	23600	1.63
SuperMax 12 Strand 60mm		60	252000	1.75
SuperMax 12 Strand 64mm		64	282000	2
SuperMax 12 Strand 68mm		68	316000	2.26
SuperMax 12 Strand 72mm		72	348000	2.54
SuperMax 12 Strand 80mm		80	422000	3.13

SuperMax 12 Strand 88mm	88	503000	3.79
SuperMax 12 Strand 96mm	96	588000	4.51

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