

FOR SAFE WORKING LIVES







FIBREROPE

3





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BUNZL SAFETY CARRY AN EXTENSIVE RANGE OF FIBRE ROPES

in both reels and coils to suit all types of applications. From general purpose to high performance, our range includes the latest and best synthetic and natural fibre

FIBRE ROPES

RECENT ADVANCES IN SOME SYNTHETIC FIBRE ROPES MAKE THEM JUST AS STRONG AS STEEL. AS A STEEL WIRE REPLACEMENT, MANY FIBRE ROPES ARE LIGHTER, EASIER TO HANDLE, SAFER AND STRONGER. THEY ALSO DO NOT CORRODE LIKE STEEL.

New advanced rope designs can compensate for the inferior wear characteristics of fibres and take full advantage of the other fibre properties. Some fibre ropes have tension and bending fatigue performance superior to those of wire ropes. The newer forms of fibre ropes are thus ideal for mining, construction and marine applications.

Unlike string, thread, and line (which are single units of fibre material), most ropes are a combination of braided fibres which helps to increase strength. Rope can be made from natural or synthetic fibres. Synthetic rope is more popular than ever these days because of its many advantages.

DIFFERENT TYPES OF FIBRE ROPES

There are many different types of fibre rope available. All with their own advantages and disadvantages, when considering their application, and when compared to wire rope.

SYNTHETIC ROPES

WINCHLINE

Is UHMwPE (Ultra High Molecular Weight Polyethylene) 12 strand rope. It is lighter and stronger than its wire rope equivalent, and highly resistant to abrasion and UV light.

NYLON

Manufactured from nylon fibres, this 8 strand rope is resistant to UV light, chemicals and decay. Provides excellent strength, however elongation is around 40%. It is often used for marine and mooring applications.

POLYPROPYLENE

Polypropylene is 3 strand synthetic rope which is resistant to deterioration in water, oil sunlight and weather. It can however, be easily damaged by abrasion.

POLYESTER

Polyester has high strength and torsion resistance, and its soft to touch structure makes it easy to handle, knot and splice. Polyester ropes do however sink in water.

NATURAL FIBRE ROPES

SISAL

Sisal is made from natural staple fibres which are bio-degradable. It is a relatively cheap rope that is coarse, strong and durable. Chemicals and moisture will affect its longevity. Sisal is often used as tagline and for decorative applications.

MANILLA

Made from hemp which is a 3 strand rope, Manilla is one of the strongest natural fibre ropes. Both abrasion and weather resistant, this low stretch rope is often used for stage rigging and decorative purposes.



WINCHLINE ROPE

WINCHLINE ROPE

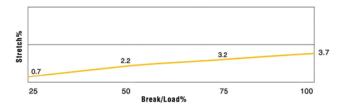


STEALTH® UHMWPE 12 STRAND BRAID

Made from high strength UHMwPE (Ultra High Molecular weight Polyethylene) fibres, Donaghys Winchline has a very low elongation of 4% at break, and on a weight for weight basis, is 15 times stronger than steel wire rope.

RANGE AVAILABLE: 1 mm to 96mm, sold by the metre.

STRETCH VS BREAK LOAD









STEALTH® UHMWPE 12 STRAND BRAID

FEATURES AND BENEFITS

- 8 x lighter and 15 times stronger than steel wire rope
- · Low stretch, easy to splice and non-rotational
- Unique pink colour for safety
- High UV and chemical resistance
- · Floats and will not absorb water
- High internal and external abrasion resistance
- · Virtually no recoil in the unlikely event of failure
- Maximum continuous length removes waste factors and enhances hauling/winch line integrities
- High performance abrasion / heat resistant jackets available on request



Winch lines, vehicle rescue/recovery, logging, towing line or pulling/stringing lines



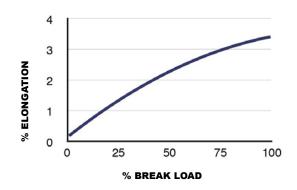
CODE	DIAMETER (MM)	BREAK FORCE (TONNES)	MAX. LENGTH APP. METRES	WINCHLINE BREAK FORCE (TONNES)	WINCHLINE WEIGHT / 100M KGS	6X36 IWRC WIRE ROPE GRADE: 1960 BREAK FORCE (TONNES)	6X36 IWRC WIRE ROPE WEIGHT / 100M KGS
D4BRS09WAM	9	9.3	1025	9.3	4.0	5.8	33.2
D4BRS12WAM	12	17.0	3050	17.0	7.8	10.3	58.8
D4BRS14WAM	14	19.9	2250	19.9	10.5	14.0	80.2
D4BRS16WAM	16	26.1	1720	26.1	12.0	18.3	104.0
D4BRS18WAM	18	34.7	1360	34.7	17.0	23.0	132.0
D4BRS20WAM	20	45.3	1100	45.3	20.0	28.4	163.0
D4BRS22WAM	22	52.2	904	52.2	25.0	34.5	197.0
D4BRS24WAM	24	61.3	760	61.3	29.0	41.0	235.0
D4BRS26WAM	26	72.5	650	72.5	34.0	48.1	276.0
D4BRS32WAM	32	93.9	1189	93.9	52.0	72.9	418.0
D4BRS36WAM	36	118	939	118	60.0	92.2	531.0
D4BRS44WAM	44	174	629	174	81.0	138.0	793.0

Note: Other sizes available on request

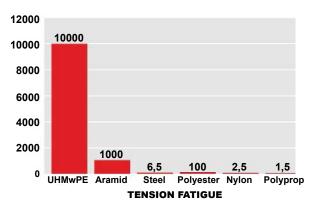
WINCHLINE ROPE

TECHNICAL

ELONGATION VS BREAK LOAD

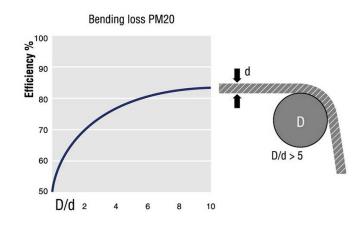


ROPE PROPERTIES; TENSION FATIGUE

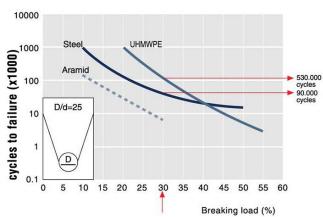


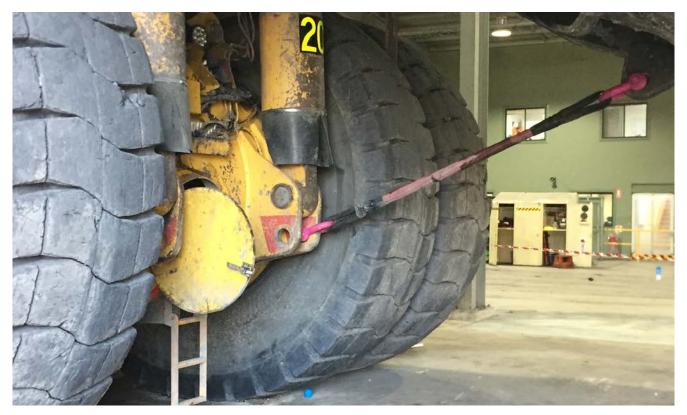
at 50% Minimum Breaking Load = Safe Working load

ROPE PROPERTIES; STATIC BENDING



BENDING FATIGUE





HEAVY DUTY RECOVERY STROPS

HEAVY DUTY TIGHT 100% FLAT NYLON BRAID BODY & EYES

Heavy duty nylon braid on

body and eyes protects from wear and tear

HEAVY DUTY RECOVERY STROPS



MONGOOSE RECOVERY STROPS

Mongoose Heavy Duty Tow Strops are 12 strand UHMwPE (Ultra High Molecular weight Polyethylene) tow rope designed for industrial, and light vehicle recovery.

Mongoose Strops come fitted with a heavily protected 200mm soft eye splice in each end and feature a tight heavy duty nylon cover.

FEATURES AND BENEFITS

- Ultra high strength to weight ratio
- · Lightweight and flexible to reduce risk of back injuries
- Low elongation & high wear resistance
- · Minimal re-coil and kinetic energy at break
- Traceability (durable ID tags)
- Reduced hand injuries (no fish hooking)
- Heavy duty tight 100% flat Nylon Braid cover
- Certified to Tonnage rating





ID tags

MONGOOSE BY DONAGHYS

APPLICATIONS

Light and heavy vehicle recovery, 4 x 4 vehicle recovery, vehicle towing

CODE	FINISHED DIAMETER (MM)	BREAK LOAD (TONNES)	LENGTH (METRES)	WEIGHT OF COMPLETED STROP (KG)
BRY30T06	32	30	6	4.5
BRY30T10	32	30	10	7.0
BRY30T15	32	30	15	10.5
BRY30T20	32	30	20	14.0
BRY50T01	38	50	1	2.0
BRY50T03	38	50	3	4.0
BRY50T06	38	50	6	6.5
BRY50T10	38	50	10	10.0
BRY50T15	38	50	15	15.0
BRY50T20	38	50	20	20.5
BRY70T01	44	70	1	2.5
BRY70T03	44	70	3	4.5
BRY70T06	44	70	6	7.5
BRY70T10	44	70	10	13.0
BRY70T15	44	70	15	17.0
BRY70T20	44	70	20	28.0
BRY100T6	48	100	6	12.0
BRY100T10	48	100	10	15.5
BRY100T15	48	100	15	29.5
BRY100T20	48	100	20	34.0
BRY150T10	65	150	10	24.0
BRY150T20	65	150	20	47.0
BRY200T15	75	200	15	45.5
BRY300T15	82	300	15	65.0

Note: Other sizes and lengths available on request



Extreme

strength from Winchline core

HEAVY DUTY RECOVERY STROPS

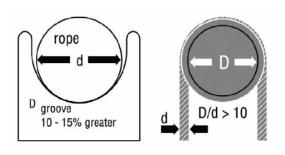
CONSTRUCTION & MINING VEHICLE RECOVERY APPLICATIONS



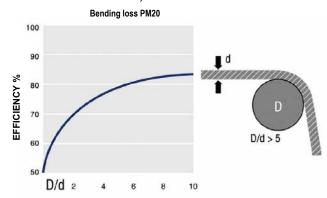
	DISTRE	SSED VEHICLES	G-GVW*	HILL OR GRADIENT TOWING - GVW*		
MONGOOSE BREAK FORCE (TONNES)	TOWING FROM GENERAL MUDDY, SLIPPERY CONDITIONS	TOWING FROM MEDIUM BOGGED POSITION IN MUD	TOWING FROM HEAVY TO EXTREME EN- TRENCHED POSITION	6° INCLINE LM GRADIENT OVER 10M DISTANCE (1:10)	10· INCLINE LM GRAIDENT OVER 6M DISTANCE (1:6)	15° INCLINE LM GRADIENT OVER 4M DISTANCE (1:4)
30	60	30	20	120	64	41
50	100	50	35	201	106	68
70	140	70	50	281	148	95
100	200	100	70	401	212	135
150	300	150	100	602	318	203
200	400	200	140	803	424	271
250	500	250	170	1004	529	338
300	600	300	200	1204	635	406
350	700	350	245	1405	741	474
400	800	400	280	1606	847	541
450	900	450	315	1807	953	609
500	1000	500	350	2007	1059	676

ROPE PROPERTIES; BENDING FATIGUE

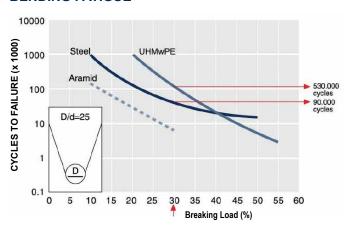
Sheaves should be smooth and clean (no rust) Groove material can play an important role in life



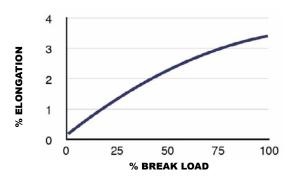
ROPE PROPERTIES; STATIC BENDING



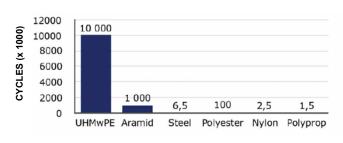
BENDING FATIGUE



ELONGATION VS BREAK LOAD



TENSION FATIGUE





SOFT SHACKLES



DONAGHYS SOFT UHMWPE SHACKLES

12 strand UHMwPE fibre Winchline hand knotted into adjustable soft shackle configuration

FEATURES AND BENEFITS

- HMPE Adjustable Shackle
- Versatile, safe and easy to use
- Perfect replacement for traditional steel rated shackles
- Manufactured to connect strops or slings to vehicles
- Soft, so will not damage of shatter if broken as with steel shackles

APPLICATIONS

Metal Shackle replacement



CODE	DESCRIPTION	WINCHLINE FINISHED SIZE	OPEN MIN. LENGTH	WEIGHT (KG)	WLL TONNES (4:1)
BRS30TSS	Soft Shackle 30T	34mm	1.5m	0.8	7.5
BRS50TSS	Soft Shackle 50T	40mm	1.5m	1.0	12.5
BRS70TSS	Soft Shackle 70T	48mm	1.5m	1.6	17.5
BRS100TSS	Soft Shackle 100T	60mm	1.5m	2.5	25.0
BRS150TSS	Soft Shackle 150T	76mm	1.5mm	4.9	37.5
BRS200TSS	Soft Shackle 200T	88mm	2.0mm	8.4	50.0
BRS250TSS	Soft Shackle 250T	104mm	2.0mm	13.6	62.5
BRS300TSS	Soft Shackle 300T	112mm	2.5mm	18.3	75.0
BRS350TSS	Soft Shackle 350T	120mm	2.5mm	26.5	87.5
BRS400TSS	Soft Shackle 400T	128mm	3.0mm	33.8	100.0
BRS450TSS	Soft Shackle 450T	136mm	3.0mm	39.5	112.5
BRS500TSS	Soft Shackle 500T	144mm	3.0mm	49.0	125.0





FIBRE CHARACTERISTICS

FIBRE: TYPE	DESCRIPTION	SPECIFIC GRAVITY	SENSITIVE TO	RESISTANT TO	HEAT REACTION	STRENGTH & ELONGATION
UHMWPE Ultra High Molecular Weight Polyethylene	Continuous Filament	0.97 g/cm3	Strong oxidising agents, Chlo- rosulfonic & Nitric acids at high temperatures. Slightly affected by Sodium Hydroxide (pH>14)	Most acids & alkalis, cold alcohols, ethers, esters, ketones & bleaches	Softens 144'C Melts 152'C	Equivalent wet/dry strength ratio. Elongation 4% at Break

VEHICLE RECOVERY TOW KITS

VEHICLE RECOVERY TOW KITS





MONGOOSE® VEHICLE RECOVERY TOW KITS 30-150T

FEATURES AND BENEFITS

- Available in 30T, 7OT and 150T options suitable for light, medium or heavy vehicles. Water, environmental or rubbish removal trucks in remote areas
- Can be easily stored in tool boxes or under carriage/trailer compartments or behind the seat for smaller 4WD applications
- Safe and light weight Soft Shackle connects to shackles, D-Rings or dolly pins

APPLICATIONS

Suitable for use in light, medium or heavy applications and new road construction applications.

KIT CONTAINS	MONGOOSE BY DONAGHYS
Heavy duty protective bag contain Strop & 2 x Soft Shackles.	ns 1 x Mongoose® Recovery

CODE	DESCRIPTION	BAG CONTENTS	STROP LENGTH (M)	APPLICATION	KIT WEIGHT (KG)
BRY30TRK	Mongoose Recovery Kit Light Vehicle 30T	1 x 30T Strop, 2 x 30T Soft Shackles	6	Light Vehicle	6.8
BRY70TRK	Mongoose Recovery Kit Med Vehicle 70T	1 x 70T Strop, 2 x 70T Soft Shackles	6	Medium Vehicle	8.1
BRY150TRK	Mongoose Recovery Kit Heavy Vehicle 150T	30 1 x 150T Strop, 2 x 150T Soft Shackles	6	Heavy Vehicle	21.9







Medium Vehicle Recovery Kit

CONSTRUCTION & MINING VEHICLE RECOVERY APPLICATIONS GROSS VEHICLE WEIGHT (GVW)

	DISTRE	SSED VEHICLES	S - GVW*	HILL OR GRADIENT TOWING - GVW*		
MONGOOSE BREAK FORCE (TONNES)	TOWING FROM GENERAL MUDDY, SLIPPERY CONDITIONS	TOWING FROM MEDIUM BOGGED POSITION IN MUD	TOWING FROM HEAVY TO EXTREME EN- TRENCHED POSITION	LM GRADIENT OVER	11· INCLINE LM GRAIDENT OVER 6M DISTANCE (1:6)	18° INCLINE LM GRADIENT OVER 4M DISTANCE (1:4)
30	60	30	20	120	64	41
70	140	70	50	281	148	95
150	300	150	100	602	318	203

^{*} The weight of a vehicle in tow based in Tonnes

FIBRE CHARACTERISTICS

FIBRE : TYPE	DESCRIPTION	SPECIFIC GRAVITY	SENSITIVE TO	RESISTANT TO	HEAT REACTION	STRENGTH & ELONGATION
NYLON (Polyamide)	Continuous Filament	1.14	Strong acids and oxidising agents, soluble in formic, sulphuric acids and phenolic compounds	Alkalis, alcohols, esters, hydrocarbons and most bleaches	Softens 229'C Melts 249'C - 260'C	Elongation Dry 40%. Wet 35%. 90-95% strength ratio weUdry
UHMWPE Ultra High Molecular Weight Polyethylene (UHMWPE)	Continuous Filament	0.97 g/cm3	Strong oxidising agents, Chlo- rosulfonic & Nitric acids at high temperatures. Slightly affected by Sodium Hydroxide (pH>14)	Most acids & alkalis, cold alcohols, ethers, esters, ketones & bleaches	Softens 144'C Melts 152'C	Equivalent weUdry strength ratio. Elongation 4 % at Break

GENERAL PURPOSE FIBRE ROPES

BEAVER SILVER ROPE

EASILY IDENTIFIABLE 3 STRAND SILVER (POLYETHYLENE) LASHING ROPE BY THE UNIQUE BLACK AND YELLOW EXTERNAL TRACERS IDENTIFYING THE GENUINE BEAVER TRUCKERS' ROPE.

Beaver Silver Rope is made from synthetic polyethylene fibres with a three strand construction. It has medium strength and durability, and a medium to soft lay for easy handling. Fibrillated film produces hairs that protrude from the rope providing excellent knotting and anti-abrasion properties.

It is resistant to oil, petrol, acid, rot, mildew, sunlight and weathering; making this rope suitable for external use. Silver Rope floats and can be stored wet.It is suitable for tying down loads on trucks, trailers and for farm use.







SILVER STAPLE ROPE POLYETHYLENE

FEATURES AND BENEFITS

- 3 Strand full flanged reels only
- Coloured white

STANDARDS TO AS 4142.2

UOM: COIL

CODE	SIZE MM	MIN BREAKING FORCE kN	COIL LENGTH MTR
347006A	6	3.69	125
347008A	8	6.1	125
347010A	10	9.26	125
347012A	12	12.4	125
347014A	14	14.1	125
347016A	16	20.8	125
347018A	18	25.4	125
347020A	20	31	125





TRUCKERS' SILVER LASHING ROPE

FEATURES AND BENEFITS

- (3 strand polyethelene ultra-violet treated) full cartons only
- . Z Twist, medium lay white coil with black & yellow external tracer

TO AS 4142.2

UOM: HANKS

CODE	SIZE MM	MIN BREAKING FORCE kN	COIL LENGTH MTR	HANKS / CTN
347010HC	10	9.26	10	10
347010HD	10	9.26	12	10
347012HD	12	12.4	12	10





SILVER STAPLE ROPE POLYETHYLENE

FEATURES AND BENEFITS

- (3 Strand) tie-down rope for transport
- (Full Coils Only) natural white colour Z twist
- **UV** treated
- Medium lay

STANDARDS TO AS 4142.2

UOM: COIL

CODE	SIZE MM	MIN BREAKING FORCE kN	COIL LENGTH MTR
347006	6	3.69	250
347008	8	6.1	250
347010	10	9.26	250
347012	12	12.4	250
347014	14	14.1	250
347016	16	20.8	250
347018	18	25.4	250
347024	24	43.1	250



BEAVER SISAL ROPE

Beaver Sisal Rope is made from natural staple fibres with a three strand twisted construction. It has exposed fiber ends that provide an ability to hold knots. It is biodegradable, however has a natural resistance to sunlight and weather allowing a reasonably long life in external applications.

FEATURES AND BENEFITS

• (3 Strand - Full Coils Only) natural colour

APPLICATIONS

Ideal for tying down loads on trailers, trucks and for farm use, as well as for camping.

STANDARDS TO AS 4142.2

UOM: COIL

CODE	SIZE MM	MIN BREAKING FORCE KN	COIL LENGTH MTR
347606	6	2.55	250
347608	8	4.73	250
347610	10	6.22	250
347612	12	9.36	250
347616	16	17.7	250
347618	18	20.1	250
347620	20	27.9	250
347624	24	39.9	250







MANILA ROPE

Superior to Sisal, Manila is the strongest of the natural fibres and results in hard wearing, low stretch, general purpose ropes.

FEATURES AND BENEFITS

- Stronger and softer feel than sisal
- 3 strand rope with good abrasion resistance
- Non conductive & weather resistant
- · Low stretch
- Resistant to fungal attack and moisture

APPLICATIONS

Marine, shipping, lifting, capstan ropes, driving ropes, slings, rope ladders, cargo nets, safety nets, block fall ropes.

UOM: COIL

CODE	DIAMETER (MM)	BREAK FORCE (TONNES)	LENGTH (METRES)	WEIGHT/100M KGS
RON0600	6	2.6	250	2.9
RON0800	8	4.8	250	5.5
RON1000	10	6.3	250	6.9
RON1201	12	9.5	250	10.6
RON1400	14	12.8	250	14.2
RON1600	16	18.0	250	19.3
RON1800	18	21.4	250	22.3
RON2000	20	28.4	250	27.9
RON2400	40	40.6	250	40.8



Note: Larger sizes available on request.





NYLON ROPE

Donaghys Nylon Rope is manufactured from nylon fibre, the strongest of conventional man-made fibres.

FEATURES AND BENEFITS

- · Good strength and abrasion resistance
- · sinks in water
- · Soft feel and easy handling
- Coils and knots well
- High extension and recovery

APPLICATIONS

Slings, forestry ropes, anchor ropes, safety lines, safety nets, car tow rope, mooring lines.

UOM: REEL

CODE	DIAMETER (MM)	BREAK FORCE (TONNES)	LENGTH (METRES)	WEIGHT/100M KGS
ROS0689	6	7.5	100	2.3
ROS0612	6	7.5	250	2.3
ROS08AA	8	13.4	100	4
ROS10AA	10	20.8	100	6.2
ROS1026	10	20.8	250	6.2
ROS1236	12	30.0	100	8.9
ROS1235	12	30.0	250	8.9
ROS14AA	14	41.0	100	12.2
ROS16AD	16	53.0	100	15.8



Note: Other sizes and lengths available on request.







POLYESTER ROPE - BLACK MED LAY

Donaghys Polyester Rope is manufactured from polyester fibre, the second strongest of conventional man-made fibres behind nylon. This rope has good strength, extension, easy handling, coiling and knotting along with excellent abrasion resistance.

FEATURES AND BENEFITS

- Soft feel and easy handling, coiling and knotting
- Low stretch and excellent abrasion resistance
- No strength loss when wet and stretches up to 46% before breaking
- Excellent shock absorption
- Blue internal marker

APPLICATIONS

General purpose & industrial, theatrical rigging, mooring/docking line, mast stays, slings, bolt ropes, flat halyards, lifelines & safety lines, hoist ropes, lifting and tying, restraints & lashings.

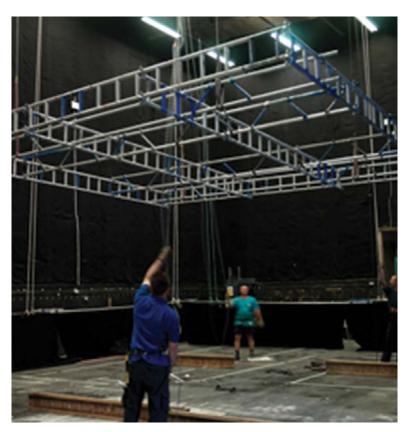
> 7.6 11 14.8

UOM: REEL



CODE ROS1085 10 16 200 ROS0612 12 23 200 ROS1485 14 32 100 ROS1685 16 41 100 ROS1885 18 51 100 63 ROS2085 20 100 30.3

Note: Soft lay, white and navy options available on request.





MOORING ROPE

MOORING ROPE



TIGER ROPE

Donaghys Tiger mooring lines are made from a blend of compatible Polyethylene (PE) and Polypropylene (PP) fibres, specially processed to produce a multi-plait shipping rope.

FEATURES AND BENEFITS

- 1.8m covered eye splice in each end
- Good abrasion, shock load & kink resistance
- · High strength to weight ratio
- UV resistant with excellent weathering properties.
- · Excellent splicing
- Floats on water
- DNV-GL certified

APPLICATIONS

Mooring, fishing, heavy industrial, oil exploration, slings, towing, docking & anchoring, fibre rope tails.

UOM: EACH





Note: Other sizes available on request.



3

OTHER SYNTHETIC FIBRE ROPES

OTHER SYNTHETIC FIBRE ROPES



SUPERFILM ROPE

Superfilm ropes are manufactured from extruded polypropylene film resulting in strong, highly abrasion resistant ropes.

FEATURES AND BENEFITS

- · Resistant to oils, petrols, common solvents, bacteria and fungi
- · Tough and abrasion resistant
- High strength to weight ratio
- Excellent handling and splicing properties
- Unaffected by water
- UV stabilised with excellent weathering properties.

APPLICATIONS

Marine, construction, mining, trucking, fishing, commercial, petroleum and General industrial

UOM: REEL







AQUATEC ROPE

Manufactured from a polypropylene/polyethylene crushed mono yarn blend then 3 stranded for higher strength, excellent abrasion resistance and splicing.

FEATURES AND BENEFITS

- Abrasion resistant
- High strength to weight ratio
- Shock load resistant
- · Excellent knotting and splicing properties
- · Not affected by water and weatherproof

APPLICATIONS

Marine fishing and farm use, ladder and foot ropes, heavy industrial, car tow ropes, truck ropes, slings.

UOM: COIL

CODE	AQUATEC PP/PE CRUSHED MONO ROPE	BREAKING FORCE (kN)
ROS0635	Aquatec 6mm x 250m Green, GLD FLK	6.7
ROS0819	Aquatec 8mm x 250m Green, GLD FLK	11.8
ROS1054	Aquatec 10mm x 250m Green, GLD FLK	17.7
ROS1261	Aquatec 12mm x 250m Green, GLD FLK	26.5
ROS1634	Aquatec 16mm x 250m Green, GLD FLK	44.1
ROS2015	Aquatec 20mm x 250m Green, GLD FLK	67.7
ROS2414	Aquatec 24mm x 250m Green, GLD FLK	97.1
ROS2814	Aquatec28mm x 250m Green, GLD FLK	129.5
ROS3205	Aquatec 32mm x 250m Green, GLD FLK	164.8
ROS4001	Aquatec 40mm x 250m Green, GLD FLK	252.1



FOR SAFE WORKING LIVES



Bunzl Safety

55 Sarah Andrews Close Erskine Park NSW 2759 **1800 967 573** bunzlsafety.com.au