

FIBRE ROPES

This section was updated 27/04/12

Fibre Ropes

For most theatre operations rope is used in some form. The rope may be of natural fibre, man-made fibre or wire rope.

Natural fibre ropes have traditionally been used in 'Hemp House' theatres, i.e. to fly scenery above a stage where there is no counterweight system and all lifting is done by direct manual effort. It should be noted that the word 'hemp' is often misused. Although in the past ropes made from hemp were normally used, it is more common nowadays to use either "flax hemp" or manila. Sisal is an inferior rope and rarely used. British Standards cover the manufacture and use of manila ropes.

Use of man-made fibre ropes, such as polyester, is widespread in many applications where previously natural fibre ropes would have been used. Polyester is resistant to oil, chemicals and changes in ambient temperature and humidity and is smoother to the touch than manila.

The most common application using two types of rope is in counterweight flying systems where the load is suspended by wire rope attached to a counterweight cradle which is restrained to move vertically on the stage side wall. The movement of a balanced counterweight set is by manual hauling of a fibre rope attached to the counterweight top and bottom. Wire ropes are normally used for all power-operated systems such as scenery and lighting hoists. Beware of using ropes made from different materials or of differing sizes of the same material in the same lifting assembly, as the stretch of the rope varies with the material from which it is made. This may result in an unsafe situation, depending on the safe working load of the weakest material.

Natural fibre ropes should comply with BS EN 698, Grade 1 special quality manila or equivalent. Synthetic Ropes should comply with BS EN 697 [polyester]. The use of polyamide [Nylon] and polypropylene ropes for flying is not recommended as they are susceptible to changes in humidity and temperature.

Load-bearing ropes used for 'hemp' or counterweight flying should be not less than 16mm diameter, be of 3-strand construction and be free from serious defects arising from previous use or other cause. Smaller sizes of rope may be used for other purposes e.g. trick lines.

Ropes should be stored protected from damp, heat, and the effects of sunlight [either directly or through glass]. The hanging of ropes on wooden or cast cleats permits adequate ventilation.

Where ropes are terminated in a loop or thimble, the splicing shall conform to good commercial practice i.e. not less than **3** full tucks for natural rope and **4** full tucks for synthetic ropes, which shall be against the lay of the rope, each with all the yarns in the strand.

All ropes should be in one continuous length and free from joints.

Any free end of rope should be whipped to prevent unlaying.

All ropes, and any associated equipment should have an identification and the safe working load marked thereon and be subject to inspection and registration in accordance with safe practice and the appropriate regulations, if any [see our rope label system on page 2.38].

All ropes should have a factor of safety of not less than **8**, based on the maximum rope tension when related to the minimum breaking load of the rope.

This information is based on the ABTT Code of Practice for Flying. Copies of the complete code are available for purchase from Flint Hire & Supply. See page 3.72.

NATURAL FIBRE THREE STRAND ROPES



new size



Manila Rope These 3 strand ropes are manufactured to ISO 1181 - 2004 which has replaced BS EN 698, Grade 1. The ropes of 16mm and above are suitable for hand hauled flying in theatres and for control lines on counterweight cradles. Manila is quite hard on the hands and can leave small fibre splinters in soft skin. Flax hemp [see below] is a softer option if the ropes are to be used frequently. Manila has about one third the strength of polyester but it will not melt when left near a hot lamp [Burns at 711°F]. Manila has poor resistance to shock loads because of its low stretch properties. The natural appearance of the rope makes them useful for set dressings.

Manila Rope		code	per m	per 220m coil
diameter	breaking strain			
6mm	350kg	ROP150	£0.39	£26.40
8mm	545kg	ROP151	£0.50	£46.20
10mm	705kg	ROP153	£0.58	£55.00
12mm	1065kg	ROP155	£1.01	£90.20
14mm	1450kg	ROP157	£1.34	£116.60
16mm	2030kg	ROP159	£1.86	£165.00
18mm	2440kg	ROP160	£2.20	£189.20
20mm	3250kg	ROP161	£2.70	£235.40
22mm	3860kg	ROP163	£3.30	£286.00
24mm	4570kg	ROP165	£3.98	£345.40

For eye splices add the cost of one metre of rope plus **£13.20** per splice [code SPLICEM] plus the cost of the thimble [see page 2.17]



Flax Hemp The price of real hemp is so high that our manufacturers have changed to using a flax yarn. The strength of this rope is similar to real hemp and it has the same soft feel. Flax hemp is much easier to handle than manila and is therefore the natural rope of choice for hauling lines on counterweight cradles. When the front cloth of the Lion King rises, the flyman is hauling on our 22mm flax hemp.

Flax Hemp		code	per m	per 220m coil
diameter	breaking strain			
12mm	1120kg	ROP304	£1.07	£128.70
16mm	1700kg	ROP305	£1.87	£246.93
18mm	2050kg	ROP306	£2.20	£289.87
20mm	2650kg	ROP307	£2.71	£341.00
22mm	3150kg	ROP308	£3.20	£388.74
24mm	3750kg	ROP309	£4.16	£487.63

For eye splices add the cost of one metre of rope plus **£13.20** per splice [code SPLICEFH] plus the cost of the thimble [see page 2.17].

For paper rope see page 1.57



Cotton Rope A lightweight soft three strand rope often used for decorative purposes. It can easily be dyed see page 1.13 and flameproofed see page 1.40. Cotton rope is very stretchy due to its lay up and is not normally used for lifting purposes. It is very comfortable to handle and some traditional small boats still use cotton mainsheets. Popular with aerialists.

Cotton Rope		code	per m	per 55m coil
diameter				
12mm		ROP405	£1.49	£68.75
18mm		ROP407	£3.04	£147.40
24mm		ROP409	£4.96	£240.90

See also Barrier Rope on page 2.36 for an alternative soft three strand decorative rope.

MAN-MADE THREE STRAND ROPES



Artificial Hemp A natural coloured three strand synthetic rope with similar feel to hemp but the strength and rot resistance of synthetics. This type of artificial hemp is made from spun polypropylene with a natural hemp colour. It is UV resistant, does not rot, floats on water and is easy to splice.

Artificial Hemp[01140]		code	per m	code	per drum
diameter	breaking strain				(100m)
6mm	320kg	ROP190	£0.52	ROP190D	£40.95
8mm	500kg	ROP191	£0.62	ROP191D	£52.50
10mm	800kg	ROP195	£0.85	ROP195D	£77.18
12mm	1100kg	ROP192	£1.19	ROP192D	£108.15

For eye splices add the cost of one metre of rope plus **£6.60** per splice [code SPLICEAHS] and the cost of the thimble [see page 17].

Artificial Hemp[01140]		code	per m	code	per drum
diameter	breaking strain				(100m)
14mm	1500kg	ROP193	£1.67	ROP193D	£137.55
16mm	2000kg	ROP194	£2.10	ROP194D	£172.20
18mm	2400kg	ROP196	£2.63	ROP196D	£216.30
20mm	3000kg	ROP1965	£3.35	ROP1965D	£276.15
24mm	4800kg	ROP197	£4.52	ROP197D	£373.80

For splices add the cost of one metre of rope plus **£8.80** per splice [code SPLICEAHL] and the cost of the thimble [see page 2.17].

See page 2.37 for Historic 3mm twine on 15m reels.

Problems with rope sizes?

Care should be exercised when choosing a rope to fit existing pulleys. Rope diameters will reduce when a load is applied. Short lengths of three strand rope will expand when cut off a coil as the tension is released. Natural fibre ropes will sometimes vary in dimensions slightly from batch to batch. If you think the rope that you need is going to be a close fit please seek advice or ask for a sample before placing an order. If Flints are making up sets of spliced lines we will cut them from the same coil or batch of coils.



new



Classic Polyester Three Strand This is a wonderful rope, soft in feel, easy to coil, naturally coloured with all the advantages of modern materials. Made from matt polyester worsted yarn which provides an historic look and excellent grip.

Classic Polyester [01172]		code	per m	code	per drum
diameter	breaking strain				(200m)
6mm	350kg	ROP117206	£0.57	ROP117206D	£95.55
8mm	730kg	ROP117208	£0.85	ROP117208D	£140.70
10mm	1100kg	ROP117210	£1.31	ROP117210D	£218.40
12mm	1300kg	ROP1172112	£1.64	ROP1172112D	£275.10

For eye splices add the cost of one metre of rope plus **£6.60** per splice [SPLICECPS] and the cost of the thimble [see page 2.17].

Classic Polyester [01172]		code	per m	code	per drum
diameter	breaking strain				(100m)
14mm	1700kg	ROP117214	£2.15	ROP117214D	£180.60
16mm	2200kg	ROP117216	£2.65	ROP117216D	£222.60
18mm	3500kg	ROP117218	£3.94	ROP117218D	£331.80
20mm	4900kg	ROP117220	£4.86	ROP117220D	£394.80

For splices add the cost of one metre of rope plus **£8.80** per splice [code SPLICECPL] and the cost of the thimble [see page 2.17].

Please visit flintsmarine.co.uk for more ropes.

MAN MADE BRAIDED ROPES [KERNMANTLE ROPES]



Matt Black Braided Polyester [BS4928 DIN EN 697]

A very strong multipurpose rope which is comfortable to handle and easy to coil. The ropes that we supply have a matt cover which, although more expensive than shiny polyester ropes, considerably adds to comfort and grip and it also helps to ensure that knots do not accidentally work loose. Polyester is marginally less strong than nylon but it does have better chafe resistance, less stretch, and it does not weaken when wet. Synthetic ropes are not ideally suited for permanent dead hanging of equipment in theatres as the rope would weaken if brought into contact with hot lamps or if a fire occurred. Available in pure black and white [unflecked] and now also in Classic Hemp colour, see overleaf. The 8mm x 8 plait rope is the ideal hauling line for 3Way Track, Unitrack, Unirail, and Halls T70 tab tracks. Use 6mm x 8plait in Halls T60 tracks. Flints can eye splice the 16 plait braided ropes.

Our best selling rope!

- ✓ Comfortable to handle
- ✓ Matt black finish or pure white
- ✓ Fantastic value
- ✓ Low working stretch-less than 7%
- ✓ Unaffected by moisture
- ✓ Excellent chafe resistance
- ✓ Very good electrical insulation
- ✓ Wide range of sizes
- ✓ Easy to coil
- ✓ Unflecked finish
- ✓ Long lasting durability
- ✓ Will not rot
- ✓ Good knot holding.
- ✓ Very good strength
- ✓ Very good UV resistance
- ✓ Resistant to acid

Also available as small cords [see page 2.36].

Matt Black		code	per m	code	100m	Tradeline
diameter	breaking strain					10 x 100m
6mm	8plait 420kg	ROP120	£0.90	ROP120D	£67.20	£601.65
8mm	8plait 870kg	ROP122A	£1.11	ROP122AD	£97.65	£873.60
8mm	16plait 1000kg	ROP122	£1.11	ROP122D	£97.65	£873.60
10mm	16plait 1500kg	ROP124	£1.75	ROP124D	£151.20	£1372.35
12mm	16plait 2400kg	ROP126	£2.14	ROP126D	£184.80	£1678.95
14mm	16plait 2900kg	ROP128	£3.36	ROP128D	£290.85	£2631.30
16mm	16plait 3500kg	ROP130	£4.46	ROP130D	£391.65	£3538.50
20mm	16plait 6000kg	ROP134	£5.45	ROP134D	£470.40	£4297.65

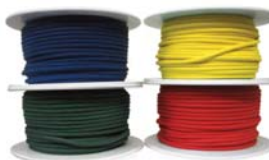
Pure Matt White Polyester Ropes

The ropes above are also stocked in pure unflecked white. Yacht ropes normally have coloured marker flecks on them but Theatre Designers like their white ropes, white. Flints have these ropes specially made. Use the prices above and add a "W" after the code.

Pure white rope



new



Pure Coloured Polyester Ropes

Flints can also supply yellow, blue, green and red matt polyester. These ropes are made especial-

...and in colour!

ly for us and are pure colour without the usual markerflecks so they can be used for digital keying effects. We can have other diameters made but subject to minimum quantity restrictions. Please phone for details. To order replace the X with the colour code. Yellow [Y], Blue [B] - ok you've got the hang of it.

Coloured Ropes		code	per m	code	100m	1000m
diameter	breaking strain					
8mm	16plait 1000kg	ROP122X	£1.21	ROP122XD	£106.05	£873.60
10mm	16plait 1500kg	ROP124X	£1.92	ROP124XD	£165.90	£1372.35



Classic Polyester

Braided

The same rope as the matt polyester braided ropes shown on the previous page but in a natural colour designed for traditional environments.

Classic Polyester [01173]		code	per m	code	per drum
diameter	breaking strain				(200m)
6mmx16 plait	420kg	ROP117306	£0.65	ROP117306D	£109.20
8mmx16 plait	1000kg	ROP117308	£1.10	ROP117308D	£177.45
10mmx16 plait	1500kg	ROP117310	£1.78	ROP117310D	£290.85
12mmx24 plait	2400kg	ROP117312	£2.19	ROP117312D	£355.95

Classic Polyester [01173]		code	per m	code	per drum
diameter	breaking strain				(100m)
14mmx24 plait	2900kg	ROP117314	£2.81	ROP117314D	£229.95
16mmx24 plait	3500kg	ROP117316	£3.93	ROP117316D	£320.25
18mmx24 plait	4500kg	ROP117318	£4.81	ROP117318D	£380.10
20mmx24 plait	5300kg	ROP117320	£7.04	ROP117320D	£556.50

BLACK HERKULES

new



Black Herkules A multi-functional polyester rope of the highest quality, very durable and low stretch. Cover construction 1:1 plaited.

- ✓ Working stretch less than 5%.
- ✓ Absolutely non-kinking.
- ✓ Excellent adhesion to winch drums.
- ✓ Withstands hard winch usage.

Herkules [01550]		code	per m	code	per drum
diameter	breaking strain				(100m)
8mm	1600kg	ROP155008	£1.35	ROP155008D	£112.35
10mm	2500kg	ROP155010	£1.80	ROP155010D	£151.20
12mm	3500kg	ROP155012	£2.77	ROP155012D	£234.15
16mm	5000kg	ROP155016	£5.58	ROP155016D	£439.95

Other sizes from 4mm to 28mm available to order by full spool.

BRAIDED ROPE SPLICING SERVICE



Eye Splicing Service Flints can splice these braided polyester ropes with either a soft eye or fitted with stainless steel or nylon thimbles. We can also splice quick release marine snap shackles directly to your rope [see page 2.25]

Braided Splicing	code	soft	nylon	S/Steel
6mm	SPLBR6X	£7.70	£8.00	£8.20
8mm	SPLBR8X	£8.80	£9.10	£10.00
10mm	SPLBR10X	£9.90	£10.30	£12.20
12mm	SPLBR12X	£11.00	£11.50	£13.70
14mm	SPLBR14X	£13.20	£13.90	£16.40
16mm	SPLBR16X	£15.40	£16.40	£18.90
20mm	SPLBR20X	£16.50	£18.20	£22.50
		[P]	[N]	[S]

Flints can supply ropes that taper over their length. These ropes are ideal when winch drum space is restricted but a large diameter rope is required to haul on.

After a bargain?
For great value rope offcuts visit the clearance site at flints.co.uk

To keep your ropes tidy see One Wrap - One of my favourite products. Page 2.87

HIGH TECH ROPES

new



Stronger than wire!



Dyneema Pro With this technical line you will achieve optimised breaking strengths with nearly no creep due to the Liros Heat Stretch System. Very resistant to abrasion, low weight and easy splice ability make this line the optimum for any application where very high strength and very low stretch are desired. Colour dark grey [smaller sizes are rather silvery and the larger sizes more slate coloured] ✓ Generally higher breaking strength than wire rope with minimal weight. ✓ Working stretch less than 1.3% therefore no whiplash. ✓ Good choice for high load tab tracks or scenery carriers as this pure Dyneema rope has no outer cover to cause slippage on rope clamps.

Dyneema Pro [01505] [E0148]		code	per m	code	per drum
diameter	breaking strain				(100m)
1mm		DISCONTINUED			
1.5mm	230kg	ROP1505015D			£58.34
2mm	410kg	ROP150502D			£65.49
3mm	610kg	ROP150503D			£101.21
4mm	1250kg	ROP150504	£1.83	ROP150504D	£154.35
5mm	2600kg	ROP150505	£2.69	ROP150505D	£225.75
6mm	4300kg	ROP150506	£4.42	ROP150506D	£371.70
8mm	5000kg	ROP150508	£5.75	ROP150508D	£452.55
10mm	7000kg	ROP150510	£7.56	ROP150510D	£595.35



Matt Black Dyneema Ropes [polyester cover] These pure matt black Dyneema ropes have exceptional strength with a low stretch of less than 1.5%. They are covered with a high quality matt 16 plait polyester cover so that they are comfortable to handle. Unlike Kevlar, these ropes are not prone to catastrophic failure and can be run around sheaves with a diameter just five times the rope diameter. The low stretch properties can be very helpful to avoid sagging return lines on long tab tracks.

Dyneema Ropes		code	per m	code	per 100m
diameter	breaking strain				
3mm	420 kg	ROP433	£1.01	ROP433D	£88.20
6mm	1280kg	ROP436	£2.14	ROP436D	£183.75
8mm	2545kg	ROP438	£3.56	ROP438D	£316.05
10mm	3520kg	ROP4310	£5.04	ROP4310D	£433.65

BLACK THREE STRAND POLYESTER



new



Black Three Strand Polyester [DIN 83331/EN697] This is a 100% pure polyester rope that is very easy to splice, extremely tensile and abrasion resistant and will not stiffen up. Available as very large sizes. ✓ Working stretch greater than 15% ✓ Very easy to splice ✓ Heat set ✓ Soft to handle, easy to coil ✓ Good choice for spliced barrier ropes etc. ✓ Pure deep black.

Black three strand polyester [00111]		code	per m	code	per drum
diameter	breaking strain				(100m exc. 4mm)
4mm (250m drum)	250kg	ROP11104	£0.41	ROP11104D	£81.65
6mm	580kg	ROP11106	£0.56	ROP11106D	£47.25
8mm	1050kg	ROP11108	£0.91	ROP11108D	£76.65
10mm	1680kg	ROP11110	£1.32	ROP11110D	£111.30
12mm	2400kg	ROP11112	£1.89	ROP11112D	£159.60
14mm	3370kg	ROP11114	£2.34	ROP11114D	£196.35
16mm	4340kg	ROP11116	£3.22	ROP11116D	£270.90
18mm	5480kg	ROP11118	£3.78	ROP11118D	£317.10
20mm	6820kg			ROP11120D	£361.20
24mm	9850kg			ROP11124D	£485.10
30mm	14800kg			ROP11130D	£766.50

See also Barrier Rope page 2.36.

INDUSTRIAL ROPE ACCESS

PPE

Dynamic, Semi Static or Static?

Ropes used for industrial access, climbing and fall arrest can be classified as three types:

Dynamic = elongation at break above 40%

Semi Static=elongation at break 35-40%

Static=elongation at break below 35%

As nylon [polyamide] is the most stretchy rope it is used almost exclusively as semi static and dynamic lines. But Nylon in its yarn state will only stretch 16-27% so extra stretch is added by braiding and by special heat treatments to ensure a 40% stretch is achieved.

The stretch is an important safety factor as the G force of a falling object can be roughly calculated by the fall distance divided by the arrest distance. Therefore a person falling 2m being arrested by a nylon rope which stretched 200mm would be subjected to a G force of 10 but if the rope was dyneema with just 2mm stretch the G force would be 1000 and possibly fatal. Dynamic and Semi Static lines are classed as PPE [personal protective equipment] Category 3, C type inspection. They must be made by a ISO9001 registered company.

PPE



Dynamic Rope This popular industrial rope is manufactured to the exacting standards you would expect. It is fully compliant to EN892. Supplied as 50m hanks.

They are designed to withstand fall factor 2 [see page 3.40].

Dynamic Rope	dia	colour	length	code	per hank
Lyon	11mm	Purple	50m	ROPBC1150LYON	£91.67

PPE



Semi Static These ropes are ideal for fixed rigging used exclusively for descender-descent and ascender ascent.

For these purposes minimum elasticity is desirable yet at the same time the ropes are semi static to protect against falls of factor 1 [see page 3.40]. These ropes should be soaked before use and left to dry, 5% shrinkage can be expected. The ropes are of all nylon construction [polyamide]. Conforms to EN1891 Type A. Suitable for use with the ASAP mobile fall arrester [see page 3.41]. Breaking load 3000kg.

Semi Static Rope	diameter	colour	length	code	per length
Industry	11mm	White	50m	ROPBCST1150	£83.75
Intervention	11mm	Black	50m	ROPBCSTN1150	£99.87

Flints can supply these ropes on long reels. Phone for details. See page 2.38 for rope labelling packs.

Why buy your ropes from Flints?

You will be joining thousands of clients who source their rope from us. Flints sell thousands of metres of rope every week! We are extremely discerning regarding the quality of the ropes that we supply and we have the buying power to specify that the rope is made to suit the exacting needs of our industry. The rope you buy from us will be of a consistent quality. We are able to negotiate on price to pass on real value. Typically our rope is much cheaper than buying from marine suppliers and the quality is absolutely the best. Our main manufacturers are DIN EN9001: 2000 certified and approved with over 100 years of experience. They are able to produce ropes to tolerances of 0.1mm or better, with heat treatment within +/-1°C. You can be assured of the best quality with real value.

TRADITIONAL SASH CORDS

Sash Cord Originally made to counterbalance sash windows. Sash Cords were made of natural jute but they were sometimes waxed to help prevent rot. The stiff waxed type was not suitable for stage use. Years ago there wasn't much choice when it came to small cords and jute sash was very popular. Then Black Cotton "Sash" arrived to fill a need for a black small cord. Recently pure black polyester "sash" is readily available. Polyester is much stronger than jute and less stretchy than cotton. It will not rot but it is more expensive. Matt black polyester sash is listed on page 2.33. The 6mm size [ROP120] is the equivalent of No4 and the 8mm size [ROP122A] is the equivalent of No6. So now there's a choice!



Now in hanks too!



Jute Sash Cord A natural coloured multi-purpose cord suitable for non-load bearing applications. No6 is the standard cord for throw lines. Widely used in tab tracks [No4 for Halls T60 and No6 for Halls T70] although many people now prefer to

use matt polyester [see page 2.33]. Please note: to find the approx. diameter of the cord add 2mm to the size of rope quoted [e.g. No 4 sash is approx. 6mm diameter].

Sash Cord	code	per m	code	per 200m
No.4 Jute Sash	ROP042M	£0.25	ROP042MD	£35.84
No.6 Jute Sash	ROP044M	£0.35	ROP044MD	£46.00
No.8 Jute Sash	ROP046M	£0.45	ROP046MD	£65.80
Joined Hanks of No.6 Jute Sash	ROP044JSJHK	£28.56	8 hanks [100m]	

new



Black Cotton Sash Cord A very soft natural cotton braided cord dyed black. Rather stretchy.

Sash Cord	code	per m	code	200 m
No.6 Cotton Sash [black]	ROP052M	£1.00	ROP052MD	£159.60

NATURAL STRINGS



Sisal A useful traditional ball of string. How long is a ball of string? Twice the distance from one end to the centre.

Sisal String	code	each
2.5kg ball	ROP055	£10.91
250g ball	ROP058	£2.65



Tarred Marlin A wonderful dark brown natural twine which smells of old ships. Heaven. See page 2.37 for Historic Cord.

Tarred Marlin	size	code	price
Whipping Twine (approx 1.5mm diam)	250g ball	ROP200WT£	16.73
Serving Twine (approx 3mm diam)	1kg ball	ROP200ST	£26.56

BRIGHT COLOURED LINES

new



Boxes of Coloured Polyester Line Handy boxes of 2mm or 3mm diameter brightly coloured polyester line which is very UV resistant, will not stiffen up and is very flexible. Each box has an assortment of red, yellow, green, black and blue. Individual reels can only

be bought from our trade counter.

Box of ten coloured lines	reel length	code	price
2mm	30m	ROP10402	£48.30
3mm	15m	ROP10403	£53.55

NYLON CORDS



Nylon Cord A very strong braided cord. Useful for trip lines and lacing. Nylon has high stretch characteristics when under heavy load. [If stretch could pose a problem then choose polyester or dyneema page 2.34]. Ends can be sealed with a hot knife. Available in black and white. Polyamide and Nylon are two names for the same product, the word Nylon being a mixture of New York and London where the product was simultaneously invented.

Nylon Cord	code black	code white	per 100m	per 10x100m
diameter	breaking strain [when dry]			
1mm	35kg	ROPNC10B	ROPNC10W	£11.14 £97.65
1.5mm	40kg	ROPNC15B	ROPNC15W	£13.23 £113.40
2mm	100kg	ROPNC20B	ROPNC20W	£14.44 £123.90
2.5mm	140kg	ROPNC25B	ROPNC25W	£15.62 £134.40
3mm	180kg	ROPNC30B	ROPNC30W	£19.25 £165.90
3.5mm	260kg	ROPNC35B	ROPNC35W	£20.47 £176.40
4mm	340kg	ROPNC40B	ROPNC40W	£22.85 £196.35

For extreme use we list pure Dyneema with a higher breaking strength than wire of the same diameter and with a stretch of less than 1% [see page 2.34].

POLYESTER CORDS



Matt Polyester Cords EN697 We now stock these matt polyester cords which have less stretch than nylon and hold their knots perfectly. They make ideal ties for lacing, tying up cables and general use

where natural string or sash line would not be strong enough.

Polyester Cord	code	per m	code	per 100m
diameter	breaking strain			
3mm	140kg	ROP117	ROP117D	£0.51 £43.05
4mm	280kg	ROP118	ROP118D	£0.60 £50.40
5mm	420kg	ROP119	ROP119D	£0.64 £52.50

For white please use the above codes with the suffix "W".

BARRIER ROPES



Barrier Rope Soft textured staple fibre polypropylene. Available in: bright red (BR), wine red (WR), green (V), gold (G), royal blue (RB), petrol blue (PB), white (W), black (N) and natural (E).

Brown Discontinued

Barrier Rope	code	per m	25m coil
diameter			
24mm	ROP420XX	£4.90	£96.75
30mm	ROP422XX	£6.72	£136.25



Barrier Rope Fittings and Standards

Easy to fit good quality fittings to make up rope barriers for theatre foyer and museum use.

End Fittings	code	each
Brass hook for 24mm	ROP420BH	£5.33
Chrome plated hook for 24mm	ROP420BHC	£5.79
Brass hook for 30mm	ROP422BH	£6.50
Chrome plated hook for 30mm	ROP422BHC	£7.03
1m high Brass plated standard	ROPBWS32	£75.00
1m high Chrome plated standard	ROPBWS32C	£65.00
Brass eye plates [for wall fixing]	ROPBRS2322	£3.41
Chrome plated eye plates [for wall fixing]	ROPBRS2322C	£3.41

SHOCK CORD LOOPS - SPANFIXES



Shock Cord Loops [Spanfixes]

Loops of 5mm shock cord with a nylon hook at one end. They measure 250mm end to end and will stretch 100% [+/-10%]. Perfect for stretching projection screens but also useful for awnings, banners and cloths.

Available black or white.

Shock Cord Loops	code black	code white	per 10	Tradeline per 500
10" [250mm]	ROP090	ROP090W	£8.60	£336.00



Spaniflex

A quickly adjustable shock cord loop 5mm x 500mm.

Spaniflex	code	each	Tradeline per 500
	ROP090S	£0.76	£295.00

We can supply custom Bungee Straps made to your requirements!

BUNGEE SHOCK CORD



Bungee Shock Cord

Highly elastic rubber with excellent stretch characteristics, braided cover out of abrasion resistant and highly resilient polyester 16 plaited cover. Core from high quality latex rubber. Available in black or white.

Bungee Shock Cord	code black	code white	per m	per 100m
3mm	ROP072M	ROP072	£0.42	£36.75
5mm	ROP074M	ROP074	£0.57	£48.30
7mm	ROP076M	ROP076	£0.85	£75.60
8mm	ROP078M	ROP078	£1.10	£98.70
10mm	ROP080M	ROP080	£1.42	£121.80

Other sizes and colours available to order.



Bungee Clips Two styles of black clip to terminate your bungee. Type A is held with a knot which hides in the recess and Type B has a collar that clips into place to neatly secure the bungee.

Style	bungee size	code	each
Knot Type A	5 - 6mm	ROP085	£0.50
Knot Type A	7 - 8mm	ROP086	£0.52
Collar Type B	5 - 6mm	ROP081	£0.50
Collar Type B	7 - 8mm	ROP083	£0.63

FISHING LINE



Nylon Monofilament Fishing Line

Flint's import this Arctic Strong on 500m reels in both natural and black. The prices are highly competitive. Add a B to the code for black.

Diameter	breaking strain	code	per 500m	per 500m
	kg		natural	black
0.30mm	5.44	(12) ROP2112X	£6.55	£6.55
0.45mm	11.34	(25) ROP2125X	£7.20	£7.20
0.60mm	18.14	(40) ROP2140X	£10.53	£10.53
0.80mm	31.75	(70) ROP2170X	£12.21	£12.21
1.00mm	40.82	(90) ROP2190X	£15.99	£15.99
1.20mm	54.43	(120) ROP21120X	£20.59	£20.59
			[-]	[B]

From £6.55 per 500m!

WEBBING AND FITTINGS



Webbing and Fittings Black or white polyester webbing for reliable performance and excellent abrasion resistance. Polyester has lower stretch than nylon and maintains its strength when wet. For webbing links and Seddon Links see page 2.14. For ratchet straps and tie off webbing see page 3.60.

Webbings and Fittings		code	per m	per 100m
Width	breaking strength			
25mm	1000kg	ROPPW25	£0.84	£65.10
42mm	1500kg	ROPPW40	£1.25	£85.05
50mm	2000kg	ROPPW50	£1.36	£92.40

For white please use the above codes with the suffix "W".



Stainless Steel Bridge Neat bridges for holding webbing in place. Sold in packs of two.

Stainless Bridge	webbing width	code	price per pair
	25mm	ROP0596	£1.72
	40mm	ROP0597	£2.29
	50mm	ROP0598	£2.71



Sliding Bar Buckles [aluminium bar/stainless frame] For fastening webbing.

Sliding Bar Buckles		code	price
Width	breaking strength		
25-30mm	1500kg	ROP0672	£6.26
40mm	1500kg	ROP0676	£6.26
50mm	1500kg	ROP0680	£6.89



Quick Release Buckles
The type shown on the left suits 40 and 50mm webbing. The quick release button is on the top. The buckle shown on the right is a side squeeze type and takes 25mm webbing. All the buckles are black.

Quick Release Buckles approx breaking load		code	price
25mm [side squeeze]	97kg	ROP5131K	£0.80
40mm [top release]	300kg	ROP1958	£6.49
50mm [top release]	300kg	ROP1960	£7.02



Stainless Steel Flat Buckles 3 bar, 2 slot.

Stainless Steel Flat Buckles		code	price
40mm	3.2mm thick	ROP0810	£2.92
50mm	2.6mm thick	ROP0684	£3.40

HOT KNIVES FOR CUTTING ARTIFICIAL ROPES



Hot Knife This industrial quality hot knife heats up quickly to cut and seal the ends of artificial ropes. Fitted with a light to illuminate the cutting area. The blade is also available as a separate item. 240V AC.

Hot Knife for ropes		code	price
Knife with blade		ROPHOTKK	£189.00
Knife blade only		TOLHSGB	£40.00

See also the new Economy Hot Knife Cutter on page 2.39

SPLICING

Splicing Service

Flints can hand splice three strand and braided ropes. The splicing prices are listed beside the ropes.

We can also make up wire rope drifts with individual test certificates. We will soon offer a same day tested wire rope service.



Splicing Equipment Splicing three strand ropes is relatively easy. If you can find a knowledgeable person to show how it is done, then that is the best way to learn, but if no one is available then why not purchase one of our splicing books such as "Handbook of Knots" by Des Pawson [MBE]. Books are listed on page 3.72.



Whipping Twine Black or white waxed twine in two sizes. For the heavier natural tarred twines which are more suitable for decorative work reminiscent of old ships see page 2.35.

Whipping Twine	size	qty	code	price
Whipping twine (medium) white	1mm	30m	ROP200M	£4.49
Whipping twine (heavy) white	1.5mm	20m	ROP200L	£4.49
Whipping twine (heavy) black	1.5mm	20m	ROP200LB	£6.08



Historic Cords Hemp performance, but softer, more weather resistant, and higher load performance. Made from spun polypropylene. Ideal for whipping, lashing and model boat rigging.

Historic Cord	diameter	code	per 15m spool
	3mm	ROPHC3	£7.75



Palms and Needles Left and right handed leather palms with a needle-proof section for forcing through heavy weight materials or ropes. The needles are proper sail-makers needles capable of heavy work. Whipping threads are often drawn through a beeswax cake to waterproof and seal the thread. Right handed people tend to use right handed palms.

Palm and Needles	code	price
Sailmaker's Palm [left hand]	ROP201	£7.22
Sailmaker's Palm [right hand]	ROP201R	£7.22
Sailmaker's Needles [Pack of 5 assorted]	ROP202	£4.80
Sailmaker's Needles [Pack of 20 assorted]	ROP2025	£13.54
Beeswax Cakes [for waterproofing thread]	ROP206	£4.68



After a bargain? For great value rope offcuts visit the clearance site at flints.co.uk



Marlin Spike A solid steel spike for opening up tight ropes.



Currey Spike plus shackle key.



Swedish Fid This fid is hollow so that strands can be passed through the gap while the fid is still inserted.

Jag kommer från Sverige...



Selmas are special hollow needles from Norway for splicing braided ropes. Supplied in sets of four to suit ropes up to about 12mm. See "Knots, Splices and Ropework" for detailed splicing instructions. [page 3.71].

...men vi kommer fra Norge!

Fids and Spikes	size	code	price
Marlin Spike	6"	ROP212	£8.15
Marlin Spike	10"	ROP213	£9.85
Currey Spike	7 3/4"	ROP211	£10.31
Swedish Fid	6 3/4"	ROP203	£7.45
Swedish Fid	11 1/4"	ROP204	£9.48
Selmas [set of 4]	4-10	ROP1435000	£40.48

SPLICING KIT



Splicing Kit We have put together this handy kit supplied in a tough Klein canvas zipper bag. The kit comprises of Handbook of Knots, a right [or left hand] sailmakers palm, a 6" Swedish fid, a beeswax cake, pack of 5 sailmakers needles, a reel of 1mm whipping twine, a length of braided rope to practice knots, a length natural three strand rope, and a length of three strand artificial hemp.

Splicing Kit	code	rt hand	code	lt hand	price if bought separately	price
Kit	SPLKITK		SPLKITLK		over £53.00	£47.30

new



Liros Riggers Bag A high spec splicing kit with all the tools and accessories necessary to complete braided and three strand splices. Includes: 1x Liros Whipping needle, 1x Swedish Fid, 3x Splicing needles [5,5 - 7,5 - 10mm], 1x Liros brochure, 1x Liros splicing CD, 1x Liros tape, 1x Dyneema whipping twine, 1x Pen, 1x Lighter, 1x Liros wet notes book. All packed in a handy special zipper bag.

Liros Riggers Bag	code	each
	ROPLRB	£75.00

For knot books see page 3.71 - 3.72 For ditty bags see page 3.59.



flintsmarine.co.uk

ROPE LABELLING PACK

PPE



Rope Labelling Pack This useful kit provides a special white tape and clear heatshrink to enable the ends of ropes to be clearly marked, especially when they are cut from a reel. It is designed for use with the dynamic and semi-static ropes listed above but would be suitable for any ropes around 10mm diameter. Enough for 50 labels. See also Rescue Tape on page 2.85.

Rope Labelling Pack	code	per pack
	ROPBRE	£8.75

EQUIPMENT MANAGEMENT SYSTEM

PPE



Equipment Management System I know you are all mega organised and could quickly lay your hands on the certificate of conformity for that lanyard you bought last year. I'm sure all

your harness inspection records are neatly filed so you won't be needing to purchase this splendid Equipment Management System which resolves every problem associated with recording and storing the essential data needed to comply with LOLER regulations.

Equipment Management System	code	price
	BKSEMS	£40.00
Extra booklets for multi users	BKSEMSB	£2.50

Why not buy a robust and well designed Ortlieb bag to look after your PPE? See page 3.58.

HEATSHRINK



Using a heat gun to secure the heatshrink

Heatshrink Tubing

Ideal for sealing the ends of natural ropes without needing to whip them. Use a hot air gun to shrink it [see page 3.05]. Although the shrink tightens against the rope it

is possible to pull the shrinks loose especially on manila. We put a squirt of UHU gel [see page 1.81] on the rope before shrinking. Supplied in black. See also Rescue Tape on page 2.85.

Heatshrink	code	per m
diameter	shrinks to	
9.5mm	4.8mm	ROPHPV95 £0.50
19mm	9.5mm	ROPHPV190 £1.27
32mm	16mm	ROPHPV320 £2.78

ECONOMY ROPE AND STAKES

new



Rope and Stakes An economy grade 12mm diameter rope suitable for fencing off outdoor areas. 220m coils.

Rope and stakes	code	each	per ten
220m coil of blue rope	ROPBC220	£65.00	-----
Stakes	ROPSTAKE	£5.25	£47.10



Take a look at Rescue Tape on page 2.85

ECONOMY HOT KNIFE FOR ARTIFICIAL ROPES



New Economy Hot Knife A new economical hot knife supplied complete with a blade ideal for cutting modern synthetic ropes. Packed with an Allen key and wire

brush. Voltage 220 AC 50Hz. Power 60 Watts. Power lead length 2.5m. Weight 1.5kg

Hot Knife for artificial rope	code	price
Knife complete with blade	ROPC857K	£85.00
Knife only without blade	ROPC857	£70.00
Knife blade only	TOLC857B	£15.00