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Lanex
You can be sure

NEW ROPE
INSIDE

Paper carrier ropes

THE LANEX NAME IS A GUARANTEE OF TOP QUALITY ROPES FOR THE PAPER INDUSTRY AND A WIDE RANGE OF TECHNICAL, SPORTS AND LEISURE APPLICATIONS. AT LANEX WE HAVE BEEN MAKING ROPES AND FIBERS SINCE 1949, AND WE EXPORT OUR PRODUCTS TO CUSTOMERS IN OVER 90 COUNTRIES WORLDWIDE.

The Paper industry is specific since every paper mill paper machine is different. That is why technical knowledge and support is the key to efficient and profitable production. At LANEX we collect experience from hundreds paper mills to share and provide the best rope for our customers. Always trust an experienced LANEX agent or technical team member to help you select the best Paper Carrier Rope for your application.

Paper Carrier Ropes

High Quality

- High-quality raw material
- ISO certified production process
- In-house testing lab and R&D team

Short Delivery Time

- Local agents or distributors
- Documentation support
- Production plan and inventory based on customer needs

Competitive Price

- High-efficiency production planning
- Continuous improvement for ongoing cost control

Excellent Service

- Complete and professional rope run and rope service including audits with reports
- Splicing instruction and seminars

LANEX TECHNICAL SUPPORT

Machine Inspection

- Inspection of rope stretchers
- Inspection of pulleys and equipment
- Can be done while machine is running

Rope Run Audit

- Rope tension measurements
- Inspection of transfer points
- Can be done while machine is running

Recommendation

- A detailed report offers threading improvements

Used Rope Analysis

- Analysis of used ropes by our R&D
- Used ropes can offer information on rope run problems

Splicing Instructions

- Splicing instructions and splicing videos
- Splicing kit (splicing needle, Big Fish knife)

Splicing Seminar & Training

- On site training of machine operators
- On site or organized splicing seminars

SALES SUPPORT

- Our agents and team members can help select the best rope according to rope run and machine parameters.

ROPE TRIALS

- Optional trial of LANEX rope
- Before having a trial, machine operators should have proper splicing training.

LOCAL SUPPORT

- Stocking, order and technical support on the regular basis through your local agent or distributor.

PRODUCT SUPPORT AND ROPE RUN AUDITS

- LANEX is here to provide you with product support and rope run audits when you need it.

Paper Carrier Ropes

	Predryer	Dryer	Postdryer	Pope Reel	Sizepress	Coater	Creping Unit	High speed machines	Paper grammage over 140 g/m²	Temperature	Extra grip
Aramid Strandline UNO	✓	✓	✓		✓	✓				up to 180 °C / 356 °F	
Aramid Strandline DUO	✓	✓	✓	✓	✓	✓	✓	✓	✓	up to 180 °C / 356 °F	
Powerline UNO	✓	✓	✓	✓						up to 180 °C / 356 °F	
Powerline DUO	✓	✓	✓	✓				✓	✓	up to 180 °C / 356 °F	
Directline UNO	✓	✓	✓	✓						up to 180 °C / 356 °F	
Directline DUO	✓	✓	✓	✓				✓	✓	up to 180 °C / 356 °F	
Superline UNO	✓	✓	✓	✓	✓	✓	✓			up to 180 °C / 356 °F	
Superline DUO	✓	✓	✓	✓	✓	✓	✓	✓	✓	up to 180 °C / 356 °F	
Safegrip UNO	✓	✓	✓		✓	✓				up to 180 °C / 356 °F	Good
Gripline UNO	✓	✓	✓		✓	✓				up to 180 °C / 356 °F	Very good
Doubleline UNO	✓	✓	✓	✓	✓	✓				up to 180 °C / 356 °F	
Doubleline DUO	✓	✓	✓	✓	✓	✓	✓	✓	✓	up to 180 °C / 356 °F	
Compact UNO	✓	✓	✓	✓	✓	✓	✓			up to 180 °C / 356 °F	
Compact R	✓	✓	✓	✓	✓	✓	✓	✓	✓	up to 180 °C / 356 °F	
Extraline UNO					✓	✓				up to 180 °C / 356 °F	Excellent
Extraline DUO					✓	✓		✓	✓	up to 180 °C / 356 °F	Excellent
Technoline UNO	✓	✓	✓		✓	✓				up to 180 °C / 356 °F	
Technoline DUO	✓	✓	✓	✓	✓	✓	✓	✓	✓	up to 180 °C / 356 °F	

✓ optimal solution
UNO hollow rope without core
DUO rope with core, best solution for high speed machine and high grammage of paper
R hollow rope without core, extra round shape, alternative to ropes with core
Available colours: red, blue, green, yellow, white, purple
Diameter range: 8.5 – 16 mm, 21/64 – 5/8 inch

WHY TO CHOOSE LANEX PAPER CARRIER ROPES?

- Certified quality
- In house research and development
- Service and technical support
- Worldwide sales network

How to choose the right rope

There is no universal key for choosing right rope, but please follow these basic instructions:

1 The two main rope types are hollow rope (UNO) and rope with an inner core (DUO). DUO ropes, with an inner core, provide a rounded shape that helps with the threading of heavier weight paper or threading of paper on high-speed machines.

2 Another important difference is the grip provided by the rope. In some machine sections, increased grip is required to catch the paper tail and effectively thread the machine. Higher grip ropes, in order of increasing grip, are Safegrip, Gripline or Extraline.

3 Friction and chemical resistance can also be important when selecting the best rope. Doubleline rope provides increased friction resistance, while Compact UNO and Compact R provide a higher level of chemical resistance vs other ropes.

4 Finally, the raw material of the rope is important in determining the maximum operating temperature. UHT (Ultra-High Temperature) rope is rated to 300 °C (572 °F), while all other ropes are rated to 180 °C (356 °F).

To choose the right rope and to get more knowledge about the construction, resistance and other information, please contact our sales team or your local sales agent or distributor.

Aramid Strandline UNO/DUO

Rope with extreme resistance to abrasion and breakage. Excellent paper grip.

NEW ROPE

CONSTRUCTION

UNO

Coreless braided rope – for lower speeds and lighter weight paper.

DUO

Rope with inner core – for higher speeds and higher weight paper. Provides the very best grip for threading paper.

Description

- Raw material – Polyamide 6 (Nylon 6) + Aramid yarns
- Advanced technology with Supercoating (2nd layer of chemical protection and thermo-stabilization)
- Rough surface but still easy to splice (please follow splicing instructions)
- Optimal for working temperatures around 100 °C with a maximum 180 °C

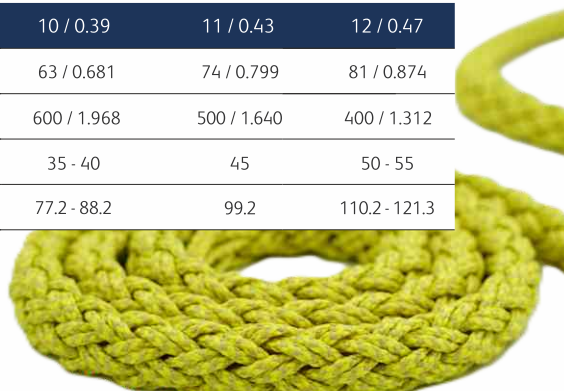
ARAMID STRANDLINE UNO

diameter [mm] / [inch]	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	50.3 / 0.544	57.5 / 0.622	70 / 0.756
length on a reel [m] / [ft]	600 / 1.968	500 / 1.640	400 / 1.312
rope tension [kg]	30 - 40	40 - 50	50 - 60
rope tension [lb]	88.2 - 110.2	110.2 - 132.3	132.3

ARAMID STRANDLINE DUO

diameter [mm] / [inch]	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	63 / 0.681	74 / 0.799	81 / 0.874
length on a reel [m] / [ft]	600 / 1.968	500 / 1.640	400 / 1.312
rope tension [kg]	35 - 40	45	50 - 55
rope tension [lb]	77.2 - 88.2	99.2	110.2 - 121.3

For further info please contact your local distributor or LANEX experts (www.lanex.cz).



Directline UNO/DUO

Basic (all-purpose) rope for all sections of the machine. Low elongation.

CONSTRUCTION

UNO

Coreless braided rope – for lower speeds and lighter weight paper.

DUO

Rope with inner core – for higher speeds and heavier weight paper. Provides basic grip – for better grip please see Superline, Safegrip, Gripline or Extraline. Provides standard rope life – for better rope life, please see Superline, Doubleline or Compact ropes and as the best Technoline rope.

Description

- Raw material – Polyamide 6 (Nylon 6) + PES
- Our standard technology without Supercoating (2nd layer of chemical protection and thermo-stabilization)
- Easy to splice (please follow splicing instructions)
- Optimal for working temperatures around 90 °C with a maximum 180 °C

DIRECTLINE UNO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	30.6 / 0.329	52 / 0.559	66.8 / 0.78	75.3 / 0.81
length on a reel [m] / [ft]	600 / 1.968	600 / 1.968	500 / 1.640	400 / 1.312
rope tension [kg]	30 - 40	40 - 50	50 - 60	60
rope tension [lb]	66.1 - 88.2	88.2 - 110.2	110.2 - 132.3	132.3

DIRECTLINE DUO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	45.6 / 0.490	54.3 / 0.584	66.8 / 0.739	77.3 / 0.831
length on a reel [m] / [ft]	600 / 1.968	600 / 1.968	500 / 1.640	400 / 1.312
rope tension [kg]	30	35 - 40	45	50 - 55
rope tension [lb]	66.1	77.2 - 88.2	99.2	110.2 - 121.3

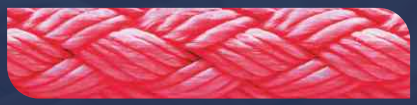
For further info please contact your local distributor or LANEX experts (www.lanex.cz).

Powerline UNO/DUO

Basic (all-purpose) rope for all sections of the machine.

CONSTRUCTION

UNO



Coreless braided rope – for lower speeds and lighter weight paper.

DUO

Rope with inner core – for higher speeds and heavier weight paper. Provides basic grip – for better grip please see Superline, Safegrip, Gripline or Extraline. Provides standard rope life – for better rope life, please see Superline, Doubleline or Compact ropes and as the best Technoline rope.

Description

- Raw material – Polyamide 6 (Nylon 6)
- Our standard technology without Supercoating (2nd layer of chemical protection and thermo-stabilization)
- Easy to splice (please follow splicing instructions)
- Optimal for working temperatures around 90 °C with a maximum 180 °C

POWERLINE UNO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	29.1 / 0.313	37 / 0.398	54.5 / 0.586	67 / 0.72
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30 - 40	40 - 50	50 - 60	60
rope tension [lb]	66.1 - 88.2	88.2 - 110.2	110.2 - 132.3	132.3

POWERLINE DUO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	43.5 / 0.468	52 / 0.559	66.8 / 0.718	75.3 / 0.81
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30	35 - 40	45	50 - 55
rope tension [lb]	66.1	77.2 - 88.2	99.2	110.2 - 121.3

For further info please contact your local distributor or LANEX experts (www.lanex.cz).

Superline UNO/DUO

Advanced (all-purpose) rope for all sections of the machine. Our Bestseller and the best choice for balancing high quality and economic price. Superline rope provides Supercoating Technology which increases rope life and supports less elongation.

CONSTRUCTION

UNO

Coreless braided rope – for lower speeds and lighter weight paper.

DUO

Rope with inner core – for higher speeds and heavier weight paper. Provides advanced grip – for exceptional grip please see Safegrip, Gripline or Extraline. Provides advanced rope life – for higher rope life, please see Doubleline or Compact ropes and as the best, Technoline rope. Provides lower elongation when compared to Powerline rope.

Description

- Raw material – Polyamide 6 (Nylon 6)
- Advanced technology with Supercoationg (2nd layer of the chemical protection and thermo-stabilization)
- Easy to splice (please follow splicing instructions)
- Optimal for working temperatures around 100 °C with a maximum 180 °C

SUPERLINE UNO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	28.7 / 0.309	36.6 / 0.394	54.5 / 0.586	67.8 / 0.723
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30 - 40	40 - 50	50 - 60	60
rope tension [lb]	66.1 - 88.2	88.2 - 110.2	110.2 - 132.3	132.3

SUPERLINE DUO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	43.2 / 0.464	51.6 / 0.555	66.2 / 0.712	75 / 0.806
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30	35 - 40	45	50 - 55
rope tension [lb]	66.1	77.2 - 88.2	99.2	110.2 - 121.3

For further info please contact your local distributor or LANEX experts (www.lanex.cz).

Doubleline UNO/DUO

Unique construction: using double the number of yarns in the rope strand – provides better abrasion resistance and increases the rope lifetime. A universal rope for all sections of the machine.

CONSTRUCTION

UNO

Coreless braided rope – for lower speeds and lighter weight paper.

DUO

Rope with inner core – for higher speeds and heavier weight paper. Provides advanced grip – for exceptional grip please see Safegrip, Gripline or Extraline. Provides exceptional lifetime – other ropes (Compact) may be better for chemical or starch applications. Provides very low elongation.

Description

- Raw material - Polyamide 6 (Nylon 6)
- Advanced technology with Supercoationg (2nd layer of the chemical protection and thermo-stabilization)
- Easy to splice (please follow splicing instructions)
- Optimal for working temperatures around 100 °C with a maximum 180 °C

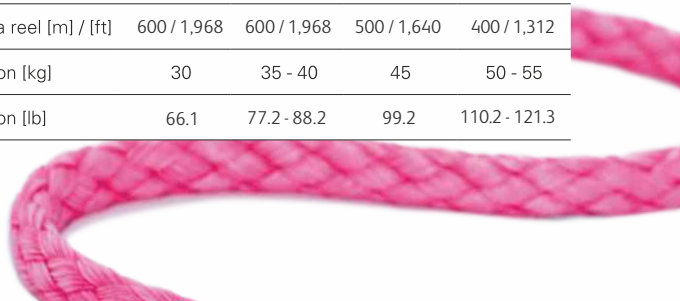
DOUBLELINE UNO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	28.3 / 0.304	36.2 / 0.389	54 / 0.581	67.2 / 0.723
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30 - 40	40 - 50	50 - 60	60
rope tension [lb]	66.1 - 88.2	88.2 - 110.2	110.2 - 132.3	132.3

DOUBLELINE DUO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	42.6 / 0.458	51.3 / 0.552	66.3 / 0.713	75.5 / 0.812
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30	35 - 40	45	50 - 55
rope tension [lb]	66.1	77.2 - 88.2	99.2	110.2 - 121.3

For further info please contact your local distributor or LANEX experts (www.lanex.cz).



Safegrip UNO/Gripline UNO

Without core but with a rounded shape for higher grip than standard UNO ropes. Safegrip and Gripline use a pair of durable braided cords for better rope grip. In the case of Gripline the cords are surrounded by tough monofilament that provides even better grip.

UNO only

Always without core – rounded shape of the rope is due to the two durable braided cords.

Safegrip
Two braided cords replace two of the strands in our normal rope design.

Gripline
Two braided cords of rope are surrounded by monofilament to provide much higher grip. Provides exceptional grip; only Extraline rope provides better. Supports very low elongation. A universal rope but highly recommended to be used on sections with very high rope demands (size press, coating, etc.).

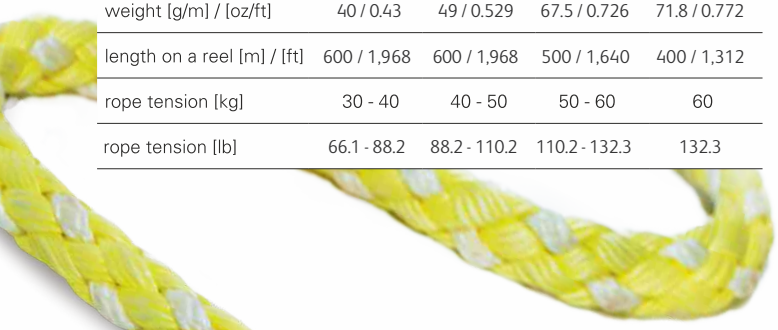
CONSTRUCTION

Description

- Raw material - Polyamide 6 (Nylon 6)
- Advanced technology with Supercoationg (2nd layer of the chemical protection and thermo-stabilization)
- Easy to splice (please follow splicing instructions)
- Optimal for working temperatures around 100 °C with a maximum 180 °C

SAFEGRIP UNO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	40 / 0.43	49 / 0.529	67.5 / 0.726	71.8 / 0.772
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30 - 40	40 - 50	50 - 60	60
rope tension [lb]	66.1 - 88.2	88.2 - 110.2	110.2 - 132.3	132.3



GRIPLINE UNO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	35 / 0.376	45.5 / 0.489	63 / 0.677	69.3 / 0.745
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30 - 40	40 - 50	50 - 60	60
rope tension [lb]	66.1 - 88.2	88.2 - 110.2	110.2 - 132.3	132.3

For further info please contact your local distributor or LANEX experts (www.lanex.cz).

Compact UNO/ R

Unique rope with 16-strand (UNO) or 12-strand (R) construction. Strands are tightly braided to prevent chemical and starch penetration and impact. Ultra-low elongation.

CONSTRUCTION

UNO

Coreless braided rope – for lower speeds and lighter weight paper.

R

Rope without core – the rounded shape is due to the 12-strand construction and a higher mass of raw material. Provides ultra-low elongation. Slightly more difficult to splice – follow splicing instructions for best operation.

Description

- Raw material - Polyamide 6 (Nylon 6)
- Advanced coating technology with thermo-stabilization
- Splice needs to be done according to the splicing instructions
- Optimal for working temperatures around 100 °C with a maximum 180 °C

COMPACT UNO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	32.7 / 0.352	37.7 / 0.405	55 / 0.591	57.8 / 0.621
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30 - 40	40 - 50	50 - 60	60
rope tension [lb]	66.1 - 88.2	88.2 - 110.2	110.2 - 132.3	132.3

COMPACT R

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	30 / 0.323	36.2 / 0.389	57 / 0.613	69 / 0.731
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30 - 40	40 - 50	50 - 60	60
rope tension [lb]	66.1 - 88.2	88.2 - 110.2	110.2 - 132.3	132.3

For further info please contact your local distributor or LANEX experts (www.lanex.cz).

Extraline UNO/DUO

Extraline rope provides the best grip for use on the most difficult machine applications. Every strand of the rope is surrounded by braided monofilament. This monofilament breaks apart with use creating a rough surface on the rope to provide the very best grip.

CONSTRUCTION

UNO

Coreless braided rope – for lower speeds and lighter weight paper.

DUO

Rope with inner core – for higher speeds and higher weight paper. Provides the very best grip for threading paper. Slightly more difficult to splice – follow splicing instructions for best operation.

Description

- Raw material - Polyamide 6 (Nylon 6)
- Advanced technology with Supercoationg (2nd layer of chemical protection and thermo-stabilization)
- Rough surface but still easy to splice (please follow splicing instructions)
- Optimal for working temperatures around 100 °C with a maximum 180 °C

EXTRALINE UNO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	36.2 / 0.389	44.9 / 0.483	52 / 0.56	55 / 0.591
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30 - 40	40 - 50	50 - 60	60
rope tension [lb]	66.1 - 88.2	88.2 - 110.2	110.2 - 132.3	132.3

EXTRALINE DUO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	46.5 / 0.5	59.4 / 0.639	61 / 0.656	70 / 0.86
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30	35 - 40	45	50 - 55
rope tension [lb]	66.1	77.2 - 88.2	99.2	110.2 - 121.3

For further info please contact your local distributor or LANEX experts (www.lanex.cz).

Technoline UNO/DUO

Special rope for maximum lifetime on the worst sections of the machine. Technoline, a rope with unique construction, is made with built-in aramid fiber. This rope provides maximum lifetime.

CONSTRUCTION

UNO

Coreless rope without the core – for lower speeds and lighter weight paper.

DUO

Rope with inner core – for higher speeds and higher weight paper. Provides advanced grip – for ropes providing even better grip please see Safegrip, Gripline or Extraline.

Description

- The aramid fiber contributes to exceptional resistance to paper coating chemicals and reliable, long-lasting resistance to moisture and temperature up to 180 °C
- The rope provides very high wear resistance
- Technoline is a universal rope, to be used in all machine sections where longer rope lifetime is required
- Can be provided as UNO or DUO version, both are very easy to splice

TECHNOLINE UNO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	29.6 / 0.318	37.7 / 0.405	55.7 / 0.599	68 / 0.731
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30 - 40	40 - 50	50 - 60	60
rope tension [lb]	66.1 - 88.2	88.2 - 110.2	110.2 - 132.3	132.3

TECHNOLINE DUO

diameter [mm] / [inch]	8.5 / 0.33	10 / 0.39	11 / 0.43	12 / 0.47
weight [g/m] / [oz/ft]	44 / 0.473	51.9 / 0.558	67.5 / 0.726	76 / 0.817
length on a reel [m] / [ft]	600 / 1,968	600 / 1,968	500 / 1,640	400 / 1,312
rope tension [kg]	30	35 - 40	45	50 - 55
rope tension [lb]	66.1	77.2 - 88.2	99.2	110.2 - 121.3

For further info please contact your local distributor or LANEX experts (www.lanex.cz).

Accessories for LANEX Paper Carrier Ropes

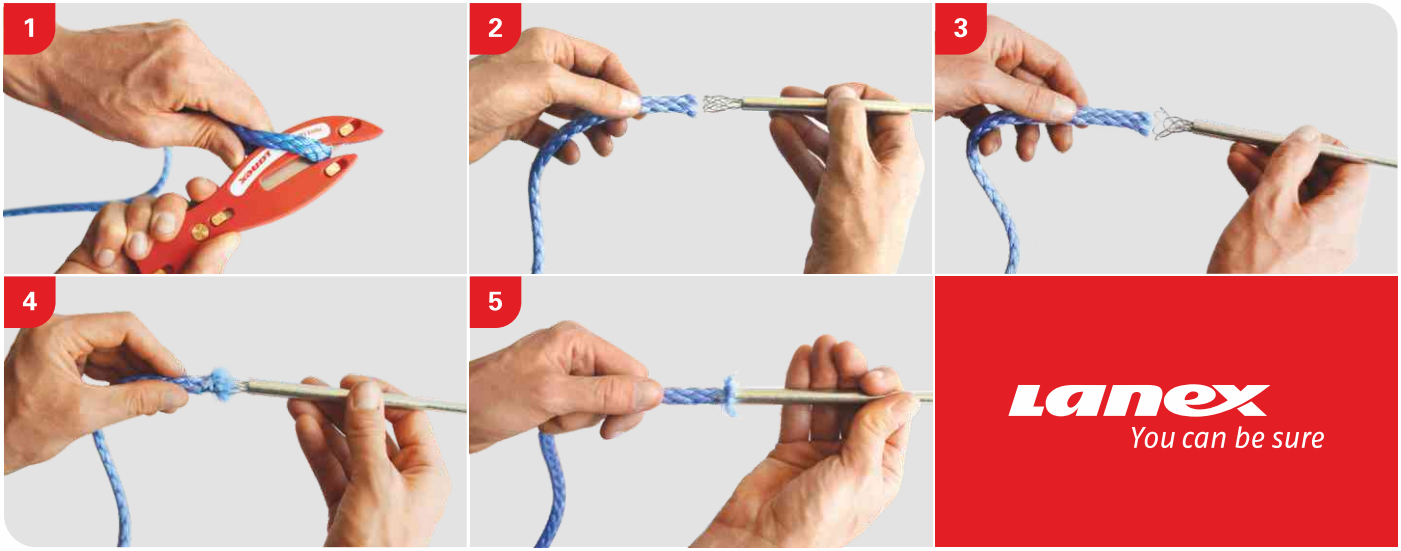
Splicing needle

Ensure the best splice and maximum rope life by using genuine LANEX splicing needles. It is essential to use the proper method and tools to achieve the best splice, every time.

LANEX supplies splicing needles in two sizes

- narrow needles for splicing ropes with diameter up to 10 mm (including all diameters of Compact UNO/R ropes)
- thick needles for splicing ropes with diameter from 11 mm upwards

LANEX splicing needles are specially designed for use in the highly demanding operating conditions of paper machines. Splicing baskets (which can wear out before than needles) can be purchased separately.



Rope tensioner for splicing

Take the pressure off with a LANEX tensioning device. This tool simplifies the splicing process for paper carrier ropes.

Safety rope knife

LANEX's special rope knife – nicknamed the BIG FISH because of its shape – is a simple, popular and very safe tool for cutting ropes.

- extremely safe operation – minimizes risk of injury
- ideal for safe splicing in conjunction with a LANEX splicing needle

Rope cart

When feeding ropes into the rope run it is essential that the ropes are unspooled in a horizontal direction. Vertical unspooling can cause the rope to twist, which reduces its service lifetime. To ensure correct unspooling, LANEX supplies a specially designed cart holding 3 spools of paper carrier rope.

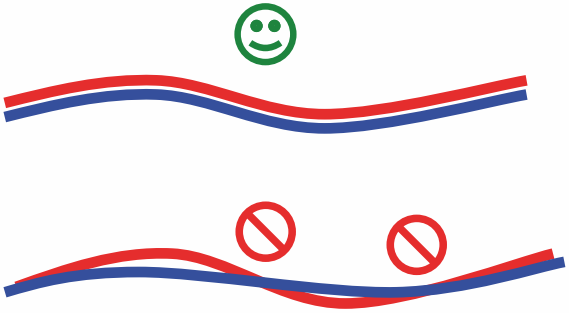
- easy, problem-free horizontal unspooling
- easier handling of rope spools
- stores up to 3 spools at once
- keeps the rope clean and dry

Common Causes of Carrier Rope Failure

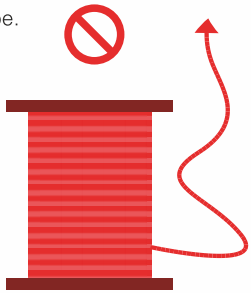
1. Incorrect type or diameter of rope.
2. Misalignment of one or more sheaves.
3. Incorrect sheave groove profiles.
4. Rope running outside of sheave grooves.
5. Worn sheave grooves often with sharp edges, typical of plastic and aluminum sheaves.
6. Sheave grooves soiled by broke or size/coating deposits.
7. Sheaves too small in diameter causing excessive rope flexing.
8. Sheaves with blocked or partially blocked bearings.
9. Obstructions in rope path.
10. Rope path allowing rope to be soaked in size or coating chemicals.
11. Felts rubbing on rope.
12. Ropes crossed.
13. Ropes twisted.
14. Incorrect splicing technique and/or short splices.
15. Incorrect tension.

Main principles

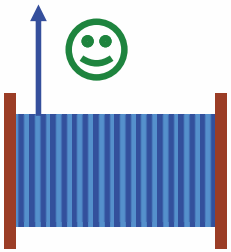
Using two (or more) rope colors will prevent incorrect rope instalation into the rope track.



Vertical unspooling may cause rope twisting leading to faster abrasion in the rope track due to non-uniform rope shape.

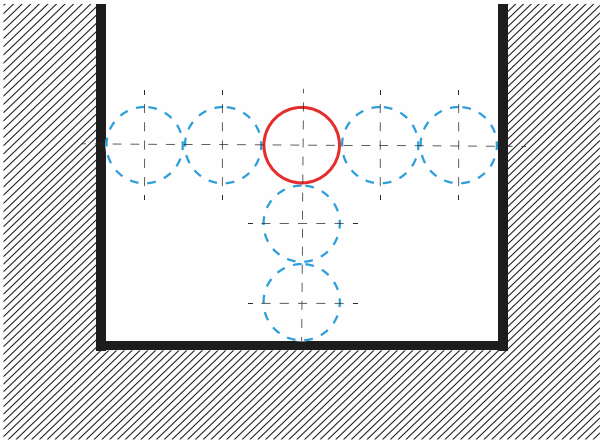


Rope must be unwound from spool horizontally.



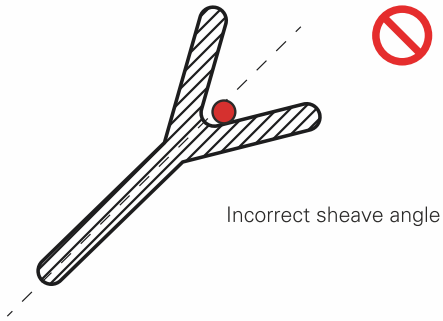
Proximity of rope to other parts of the machine

The following figure demonstrates our recommendation regarding the distance between rope and other parts of machine. This distance should be a minimum of two rope diameters to prevent against potential abrasion and damaging the rope.

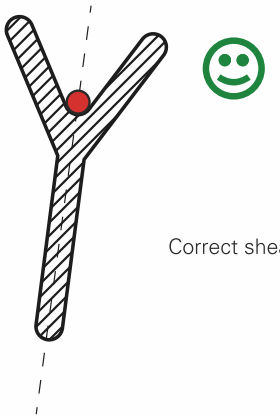


Sheave angle

The following figures demonstrate the influence of improper sheave angle on the lifetime of rope. If the sheave is leaning too much from a vertical position the rope will run on the sheave wall resulting in excess wear on one side of the rope and decreased life. When the sheave is close to vertical, the rope runs properly inside the groove distributing any wear more evenly, increasing rope life.

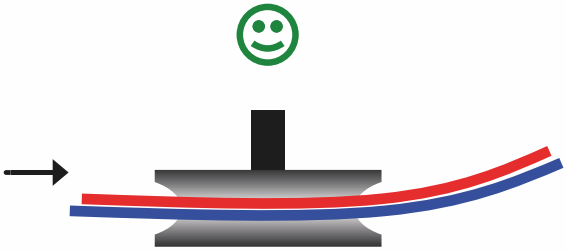


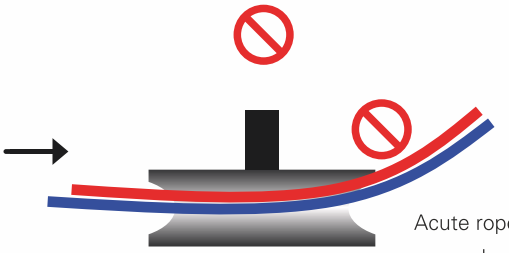
Incorrect sheave angle



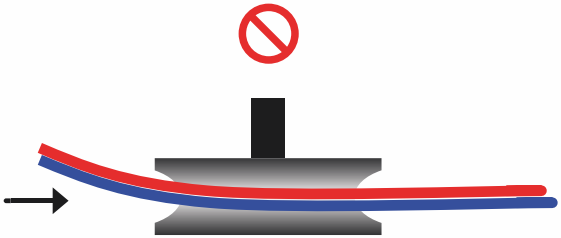
Correct sheave angle

Proper rope/sheave alignment

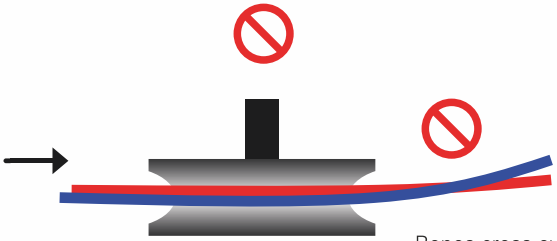




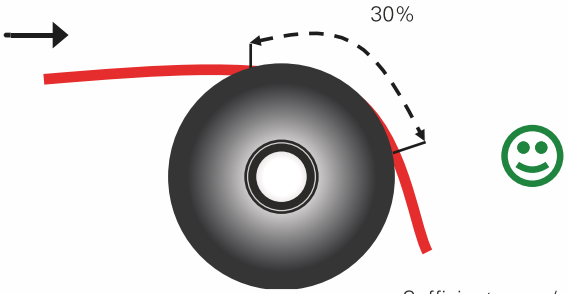
Acute rope exit angle – the rope rubs against the sheave wall, increased wear is the result.



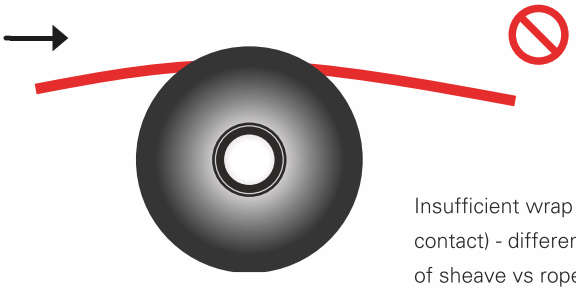
Rope must enter the sheave straight.



Ropes cross over each other, increased wear is the result.

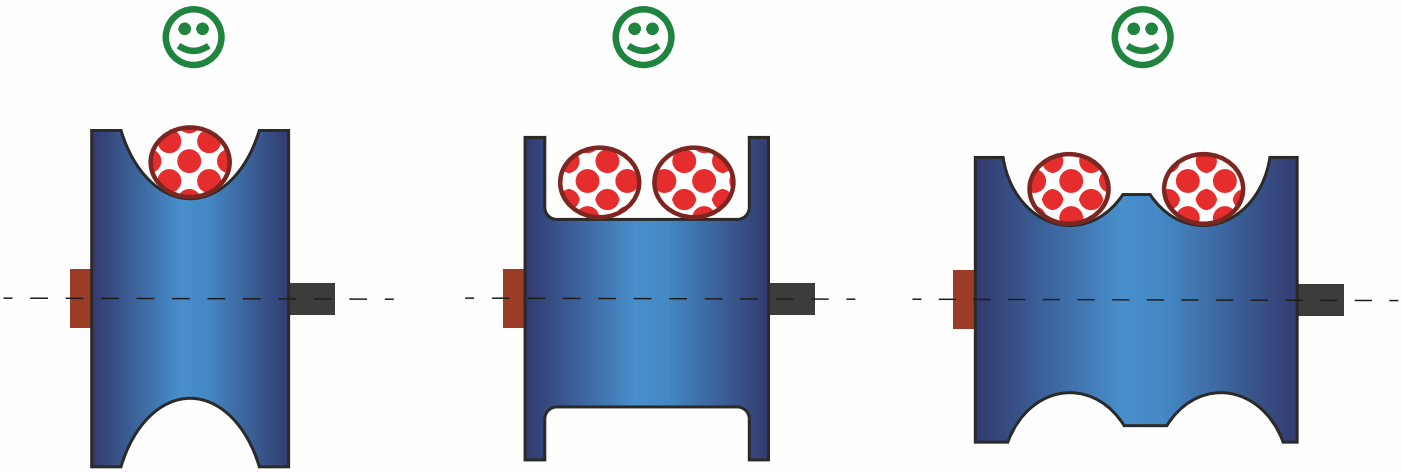


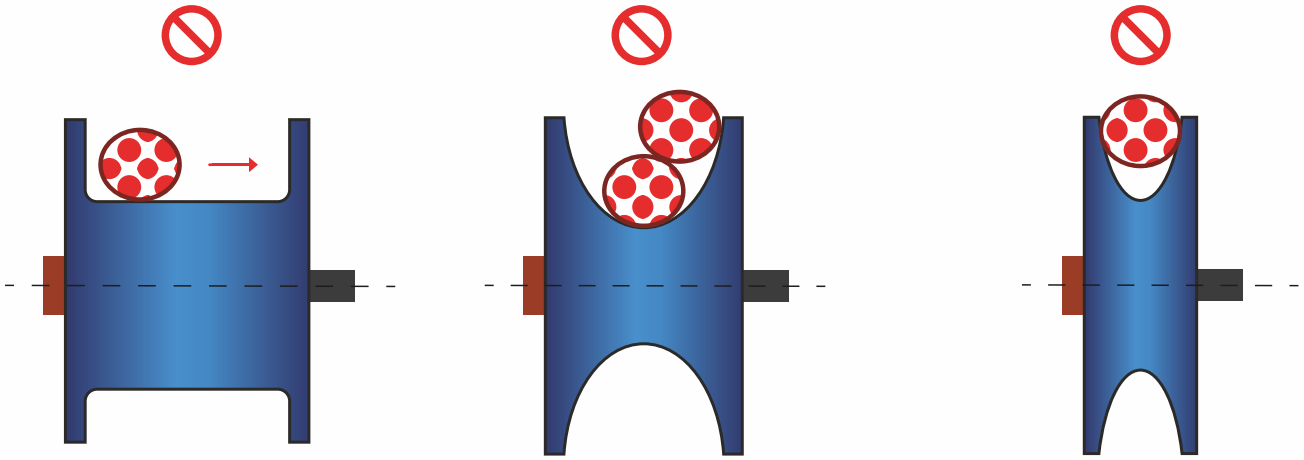
Sufficient wrap (sheave contact), at least 30% of the sheave surface.



Insufficient wrap (sheave contact) - different speeds of sheave vs rope, increased wear is the result.

Proper sheave selection





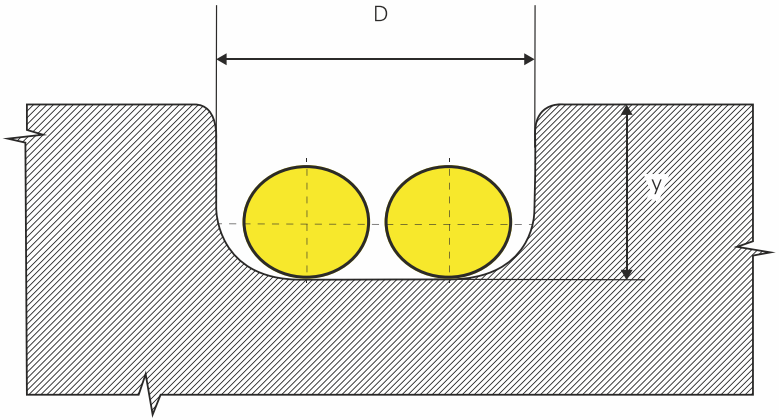
Excessively wide groove – oscillation may occur, rope movement may cause increased wear.

Groove is too small – rope overlap may cause increased wear.

Groove is too small – may cause excess wear and rope life reduction.

Diameter of groove in cylinder

Following figure describes the situation of groove in drying cylinder. If the ropes haven't enough space it can rub each other and they are damaged more fasten, especially in the splicing point. Another possibility is that the rope can jump out from the groove. On the other hand if the groove is too wide the rope oscillates and do not grip the paper tail well.



D = d + d + 1/2xd

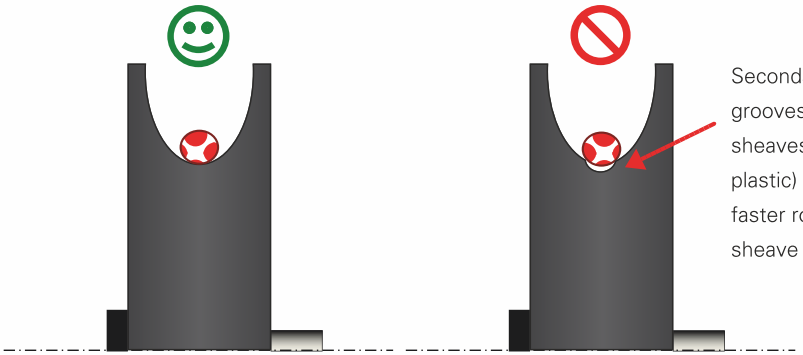
D = diameter of groove

d = diameter of rope

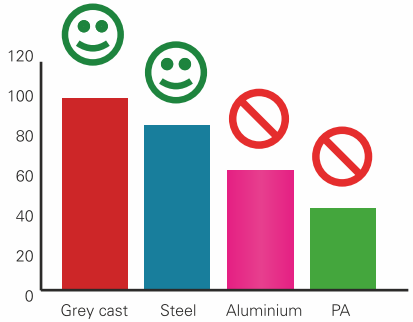
min. y = 12 mm

Secondary (wear) grooves & sheave material

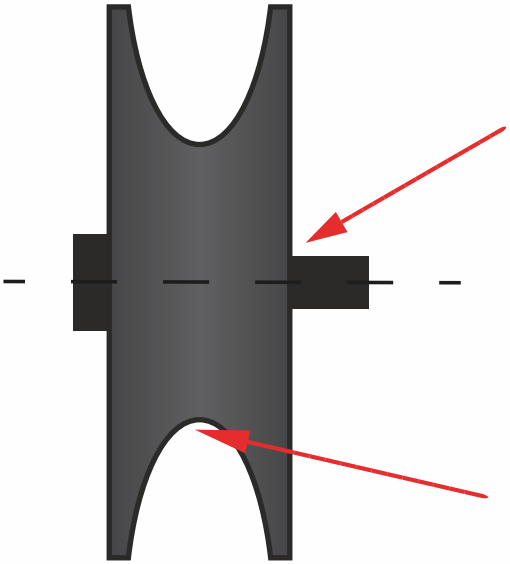
The following figures show influence of secondary wear grooves of pulleys on lifetime of rope.



Secondary wear grooves in soft material sheaves (alluminium, plastic) may cause faster rope wear and sheave damage.



Sheave maintenance



Check the bearings of sheaves regularly. Oscillation may cause the rope to drop out. Blocked sheaves may cause excess wear and significant lifetime reduction.

Check and clean the sheave surface regularly. Rust or dirt may cause excess wear and lifetime reduction.

Tensioners/stretchers

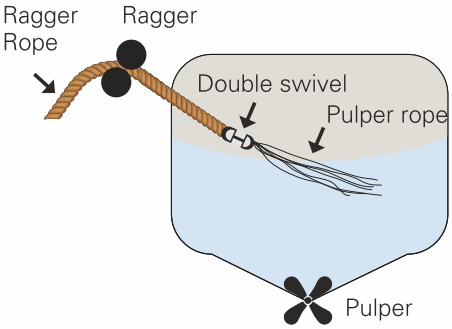
- The length of the stretcher should be approximately 8% of total rope length
- Set for low tension during running time and maintenance stops (less rope abrasion and tension)
- Set for higher tension during paper feeding (ropes under higher tension will have a improved grip on the tail)
- Gravity stretchers - for machines operating under 300 m/m (1,000 ft/min) with limited range of paper grades. Less expensive, more difficult to modify the rope tension.
- Pneumatic stretchers - for machines operating over 300 m/min (1,000 ft/min) with more paper grade changes. Faster reaction time for tension changes, especially in the size press or coaters when wash water can be splashed on the ropes during cleaning causing sudden changes in rope length.

Also available from Lanex

Packaging

- 360 x 360 x 500 mm

Ragger/Pulper Rope assembly



Pulper Rope

Ragger Rope

Montage Simple

Based on the groove shapes we offer 3 main types of rope pulleys

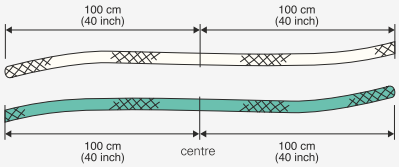
Return Transfer Separator

Splicing instructions

Around 30% of the performance of paper carrier rope depends on correct splicing. Incorrect splicing can severely reduce the service lifetime of paper carrier rope (to as little as 10% of its standard lifetime).

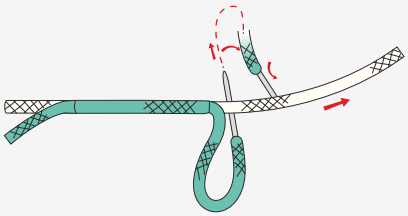
Correct splice
UNO ROPES WITHOUT CORE

1 LENGTH



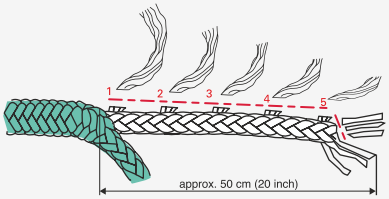
Right length of splice should be at least 200 cm (80 inch), 100 cm (40 inch) on each side.

2 SAFETY LOCK

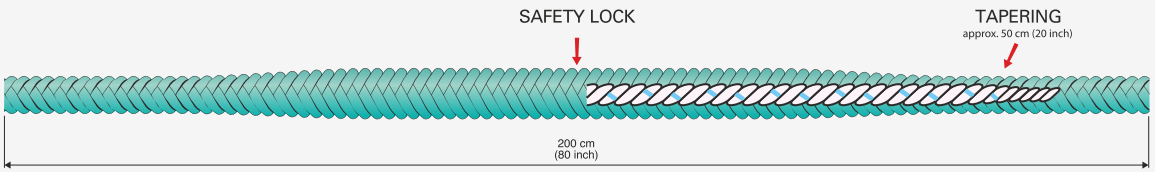


Pierce the needle into the opposite rope in the centre mark.

3 TAPERING



Every 5 cm (2 inch) remove one strand and cut it to make splice smooth.



LENGTH OF SPLICE

To help operators splice paper carrier ropes correctly, LANEX has produced an instruction video giving step-by-step instruction for the correct splicing technique.

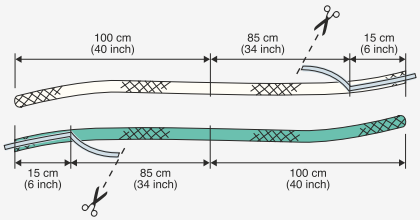
The video is available

- at http://www.lanex.cz/en/splicing-instructions
- of Flash disk - ask your local LANEX distributor

or contact your local LANEX distributor to arrange an on-site training session at your factory

Correct splice
DUO ROPES WITH CORE

1 LENGTH



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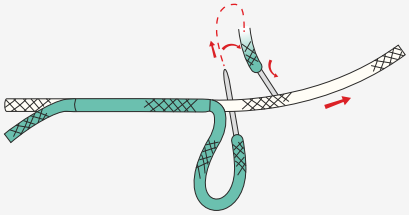
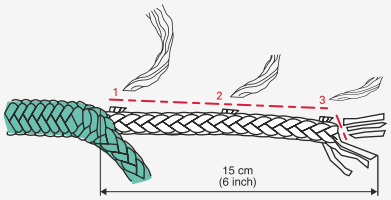
2 SAFETY LOCK

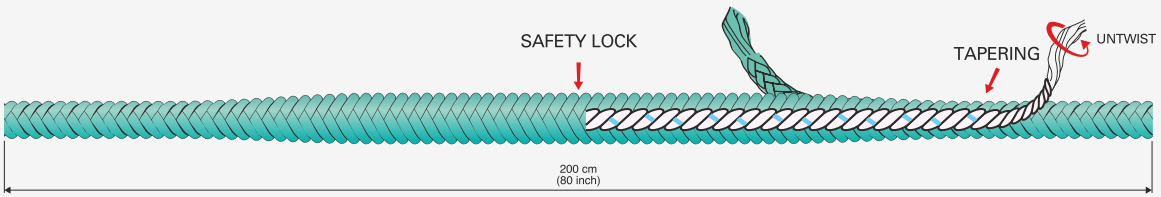


Pierce the needle into the opposite rope in the centre mark.

3 TAPERING



Every 5 cm (2 inch) remove one strand and cut it to make splice smooth.



LENGTH OF SPLICE

Reference list

玖龍紙業(控股)有限公司
NINE DRAGONS PAPER (HOLDINGS) LIMITED

RDM

bilt

burgo

DS Smith

CHENMING

INTERNATIONAL PAPER

Klabin

NORPAPER
AVOT-VALLÉE

理文造紙有限公司
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delfortgroup

Smurfit Kappa

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SUZANO
PAPEL E CELULOSE

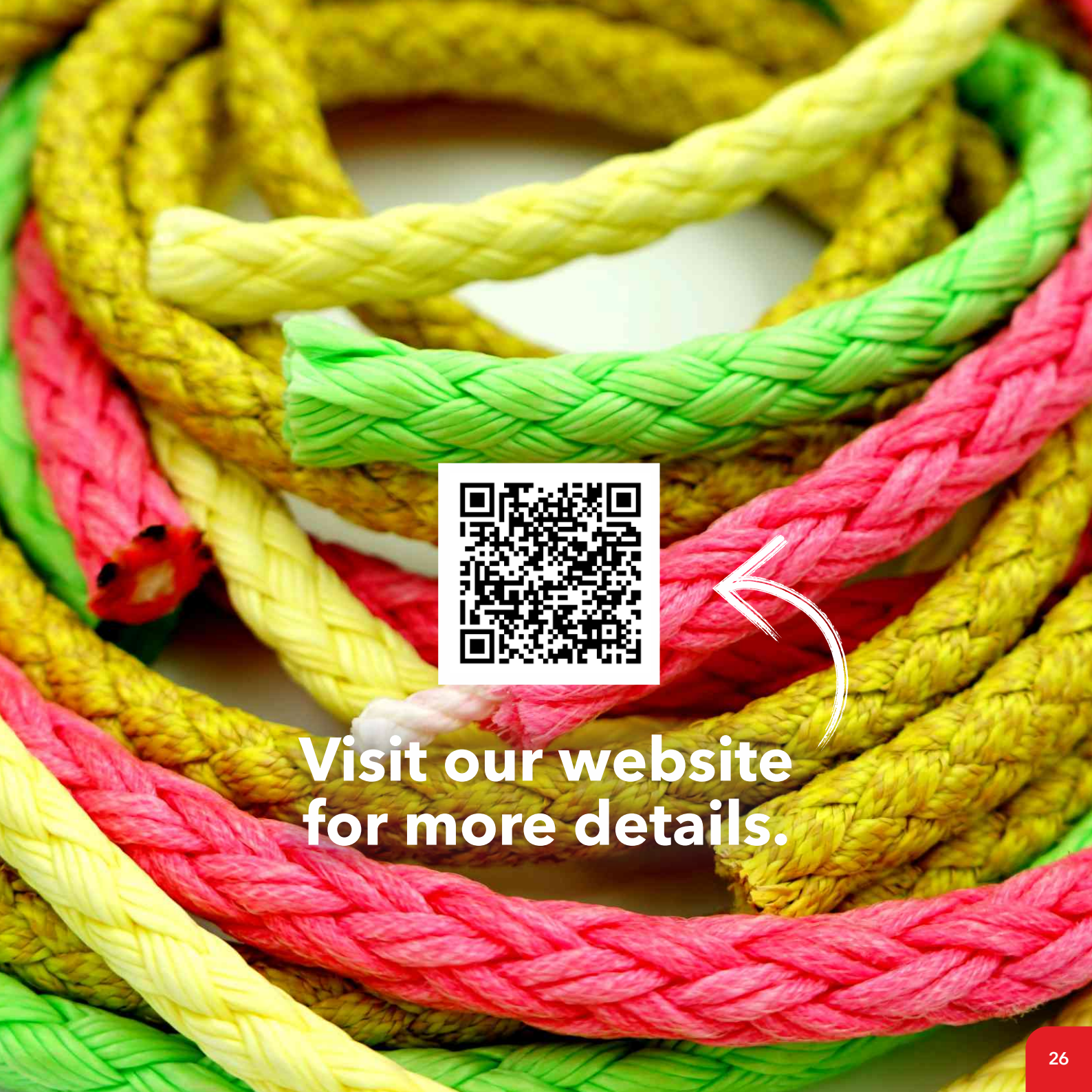
FEDRIGONI
PAPER

GEMDOUBS s.a.s.

博汇
Bohui
博汇纸业
BOHUI PAPER

LECTA

and many others…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