

The following pages contain our high performance fiber ropes. The ropes are made in the USA and meet the highest quality expectations you have. The applications range from aircraft recovery to hydro-utility crane applications.

As the application for these ropes are more demanding as for just 'regular' ropes we suggest you call us for consultation before selecting a rope type yourself.





# **Utility & Industrial Ropes**



New England Ropes products are manufactured from synthetic fibers which are environmentally stable and will not rot, unlike traditional natural fiber ropes. New England Ropes unique stabilization process and four-stage balanced construction are used to minimize both shrinkage and surface hardening while providing excellent abrasion resistance.

## **PRODUCTS:**

- **DA-PRO** is a 12-strand composite rope that strikes a balance between the strength & non-rotational characteristics of a braid and the abrasion resistance & cost efficiency of a 3-strand.
- ENDURA 12 is a 12-strand high tech product that produces the strongest, lightest, lowest stretch, torque-resistant rope available.
- **ENDURA BRAID** is a double braid rope that combines the strength of a UHMWPE core with the abrasion resistance of a polyester cover.
- **MULTILINE II** is a composite rope that strikes the perfect balance between the strength & abrasion resistance of Classic Polyester 3-strand and the light weight & cost effectiveness of polypropylene 3-strand.
- **NEREX** is a 12-strand polyester rope specifically designed for maximum strength and minimum elongation.
- **PCRU** uses a parallel core construction designed for the lowest possible elongation and greatest abrasion resistance of any polyester pulling line.





**Utility & Industrial Ropes** 

## DAPRO **PRODUCT DESCRIPTION**



Dapro is a 12-strand (S/braid) construction with each strand utilizing lightweight polyolefin fiber sheathed in high tenacity polyester fibers. This unique construction produces a strong, lightweight rope that is firm/round, torque-free and has excellent abrasion & snag resistance. Dapro is ideally

suited for lifting & handline applications.

## **FEATURES**

- High Strength-to-size ratio (wet & dry)
- Non-Rotating
- Easily spliced
- Round construction
- Good grippage

## **APPLICATIONS**

- Hand lines
- Bull ropes
- Adjustable slings
- Tie downs
- Heaving lines
- Ship Assist lines

### SPLICE

Single braid straight bury

### **ENDURA 12 PRODUCT DESCRIPTION** Endura-12 utilizes the lat-



est Ultra High Molecular Weight Polyethylene fiber in a 12 strand construction. This high tech fiber & construction provides an extremely high strength, light weight rope that is non-rotational and easily spliced. Endura-12 is ideally suited for wire replacement applications where weight is a

main design consideration.

### **FEATURES**

- Excellent strength-to-size ratio
- Ultra low elongation
- Excellent weight-to-size ratio
- Excellent wet/dry strength retention
- Floats / no water absorption
- Torque free
- · Vinyl coating, colors for coding
- Easily spliced

## **APPLICATIONS**

- Replacement for steel cable
- Underground pulling
- Winch line
- Slings
- Tug boat tow lines
- Helicopter lifting lines
- Parasailing

### SPLICE

· Single braid lock stitch

## **PRODUCT DESCRIPTION**



Endura Braid is a double braid rope constructed with the latest Ultra High Molecular Weight Polyethylene (UHMWPE) fiber in its core with a durable high tenacity polyester fiber cover. The braided UHMWPE core is the same construction as our Endura-12 to create an extremely high strength rope, while the

tough twill pattern polyester cover braid provides both sacrificial / abrasionresistance and snag protection. Endura braid is ideally suited for applications where high strength and a reduced rope diameter are main design factors.

#### **FEATURES**

- · Excellent strength-to-size ratio
- Ultra low elongation
- Low weight-to-size ratio
- Excellent Wet/dry strength retention
- Excellent flexibility
- Torque free
- Vinyl coated core
- Vinyl coating over sheath available
- Spliceable

### **APPLICATIONS**

- Replacement for steel cable
- Winch line
- Helicopter lifting lines

### SPLICE

• Core to Core eye splice

WEIGHT lbs. / 100 ft.					
Diameter Inch	Dapro	Endura 12	Endura Braid		
1/8"		0.4			
3/16"		0.6	1.0		
1/4"	1.6	1.6	1.7		
5/16"	2.6	2.5	2.7		
3/8"	3.2	3.5	3.9		
7/16"	4.3	4.8	5.3		
1/2"	5.6	6.4	7.5		
9/16"	7.2	7.9	9.0		
5/8"	9.3	10.5	11.1		
3/4"	12.6	13.5	15.7		
7/8"	17.5	19.5	20.0		
1"	22.0	24.0	26.0		
1 1/8"	33.9	30.0	35.3		

## **ENDURA BRAID**



# **Utility & Industrial Ropes**

## **NEREX PRODUCT DESCRIPTION**

NEREX's 12-strand 100% polyester construction produces a firm round braid with significantly higher strengths than double braids. NEREX's vinyl coating is standard, providing superior abrasion resistance, color coding, and prevents light moisture absorption. The unique construction provides higher

strength-to-weight ratios, is non-rotating, grips and renders well on winches and capstans. NEREX is the ideal choice where low stretch and ease of splicing are key design factors.

## **FEATURES**

- Very Low Stretch
- Good heat resistance
- Torque-free, non-hockling
- Abrasion resistant
- Stays flexible & easy to handle
- Good gripping surface
- Splices easily
- Tough vinyl coating (Available in various colors for coding)
- Available in longer lengths

## **APPLICATIONS**

- Distribution & Transmission stringing lines
- Pilot Lines
- Underground Pulling Lines
- Winch Lines
- Messenger Lines
- Guy Lines
- Adjustable slings

#### SPLICE

Single braid lock stitch

## **MULTILINE II PRODUCT DESCRIPTION**



Multiline II is a 3-strand composite rope. Its unique construction combines cover yarns of 100% filament and spun polyester wrapped around a polyolefin core (smaller than 1/2" dia. does not have polyolefin core). Multiline II provides the greatest durability, highest strength, lightest weight, and most

consistent supple feel over time, of any similar composite rope.

## **FEATURES**

- Low elongation
- High strength
- Very good abrasion resistance
- Splices well
- · Stays flexible and easy to handle
- Sure gripping surface
- Holds knots well
- · Renders well around blocks, sheaves, and winches
- · Environmentally stable / will not rot

## **APPLICATIONS**

- Hand lines
- Bull ropes
- Underground pulling
- Pilot lines
- Truck rope
- Counterweight rigging
- Drop lines

### PCRU **PRODUCT DESCRIPTION**



Designed to be the premier polyester stringing line, PCRU is constructed using New England Ropes' patented parallel core of high tenacity polyester fiber contained within a helically-wrapped polyester tape and covered by a rugged braided jacket of polyester. The jacket is saturated with a vinyl

coating to improve abrasion resistance, UV resistance, and to create a water barrier. PCRU is designed to deliver maximum tensile strength for a given diameter.

### **FEATURES**

- Lowest elongation for a 100% polyester rope
- · Abrasion and snag resistant
- Excellent wet/dry strength retention
- Torque free
- Long continuous lengths
- Remains firm & round, renders well on blocks
- Good dielectric properties
- 20% stronger than Double **Braid Polyester**

## **APPLICATIONS**

- · Distribution and transmission lines
- Underground pulling
- Horizontal strength member

WEIGHT lbs. / 100 ft.					
Diameter Inch   mm		Multi Line II	NEREX	PCRU	
5/16"	8mm	2.5			
3/8"	9mm	3.6	4.8		
7/16"	11mm	5.0	6.4		
1/2"	12mm	6.2	8.9	8.7	
9/16"	14mm	-	10.5		
5/8"	16mm	9.5	11.7	13.6	
3/4"	18mm	13.7	18.0	19.6	
7/8"	22mm	18.0	25.5	26.7	
1"	24mm	20.6	32.4	35.0	
1 1/8"	28mm	30.7			



## CHEMICALS:

- Polyester has good resistance to most chemicals, except 95% sulfuric acid and strong alkalines at boil.
- UHMWPE has good resistance to most minerals/organics, acids, and weak alkalies. Excellent resistance to bleaches and other oxidizing agents and to most solvents.
- Polypropylene has excellent resistance to most acids and alkalis, except chlorosulphonic, concentrated sulfuric acids, and chlorinated hydrocarbons at 160°F. All withstand most diluted bleaching solutions.

## SUNLIGHT/UV:

Polyester and UHMWPE both have very little degradation from UV, and can be used outside over long term if inspected regularly. Polypropylene is susceptible to UV degradation and should be inspected regularly if used outside over a long term.

## **HEAT:**

Polyester's melting point is 480°F with progressive strength loss above 300°F. UHMWPE melting point is 300°F with progressive strength loss above 150°F. Polypropelene's melting point is 330°F with progressive strength loss above 200°F. (Note: Due to its high coefficient of friction and low melting point, Polypropylene is not recommended for critical applications.)

## **DIELECTRICS:**

Good resistance to passage of electrical current. However, dirt, surface contaminants, water entrapment, and the like can significantly affect dielectric properties. Extreme caution should be exercised any time a rope is used in proximity to live circuits.

## SHEAVES:

Recommended D/d\* ratio is 8:1. (\*Sheave Diameter to Rope Diameter)

## **COATING:**

Proprietary coating to improve abrasion resistance, UV resistance, and to create a water barrier. Colors are available to provide color coding.

## **SPECIFIC GRAVITY:**

• 1.38 Nerex • 1.10 Multiline

• 0.97 Endura 12 • 1.26 DaPro

1.22 Endura Braid

### **COLORS:**

White with optional vinyl coating in red, green, orange, grey, black, and blue

## WORKING LOADS:

No blanket working load recommendation can be made because it depends on the application and conditions of use, especially when the potential for danger to personnel exists. It is recommended that the user establish working loads and safety factors based on professional and experienced assessment of risks. The working load is a guideline for the use of a rope in good condition for non-critical applications, and should be reduced where life, limb, or valuable property is involved, or for exceptional service such as shock, sustained loading, severe vibration, etc. The Cordage Institute specifies that the Safe Working Load of a rope shall be determined by dividing the Minimum Tensile Strength by the Safety Factor. Safety Factors range from 5-12 for non-critical uses.

## **STANDARD LENGTH:** 600'

## **FABRICATION SERVICE**

Fabricated Units can be provided including splices, thimbles, integral chafe sleeves, etc. Contact Customer Service for details.



Compliance to the above specifications is based upon testing according to the Cordage Institute Standard Testing Methods for Fiber Rope and/or ASTM D-4268 Standard Methods of Testing Fiber Ropes. Weights: Are approximate and may vary +/- 5%. Tensile Strengths: Are approximate average for new, unused ropes. To estimate the minimum tensile strength of a new rope, reduce the approximate average by 10% (Cordage Institute defines minimum tensile strength as two standard deviations below the average tensile strength of the rope).

Tensile Strength (LBS.)						
Diameter Inch	Dapro	Endura 12	Endura Braid	Multi Line II	NEREX	PCRU
1/8"	-	2100	-	-	-	-
3/16"	-	5800	2250	-	-	-
1/4"	2100	8500	4000	-	-	-
5/16"	3300	13300	7000	2300	-	-
3/8"	4000	19000	10000	3200	6230	-
7/16"	5400	24000	14000	4100	9000	-
1/2"	7000	30000	19000	5800	11900	11000
9/16"	9000	36000	25200	-	15100	-
5/8"	11600	51000	33000	8200	17500	17000
3/4"	15700	68000	37400	10500	23500	24200
7/8"	23500	95000	53000	15500	33100	33000
1"	26600	114000	70800	18700	43300	42500
1 1/8"	34500	-	98600	26000	-	-



## Traditional 3-Strand Ropes

## CLASSIC POLYESTER 3-STRAND PRODUCT DESCRIPTION:



New England Ropes Premium 3-Strand Filament Polyester rope is manufactured using premium grade, high tenacity polyester fibers. The balanced construction results in a longer wearing, yet flexible and easyto-handle rope, that has greater strength and better abrasion resistance than other three strand polyester ropes.

### **FEATURES:**

- Moderate elongation
- High strength
- Abrasion resistant
- Sure gripping surface
- Excellent wet/dry strength retention
- Stays flexible and easy-to-handle
- Easy-to-splice

## **APPLICATIONS:**

- Industrial
- Hoisting/bull ropes
- Slings
- Winch lines
- Stringing lines

#### Yachting

• Running rigging on "traditional boats"

WEIGHT lbs. / 100 ft.						
Diameter Inch mm		Classic Spun Polyester Classic		Multiline		
3/16	5	1.2	1.2			
1/4	6	2.0	2.0			
5/16	8	2.9	2.7	2.5		
3/8	9	4.7	3.8	3.6		
7/16	11	6.6	5.1	5.0		
1/2	12	8.0	7.0	6.2		
9/16	14		8.3			
5/8	16	12.1	10.3	9.5		
3/4	19	17.5	14.8	13.7		
7/8	22	25.0		18.0		
1	25	31.0		20.6		

### SPUN CLASSIC POLYESTER 3-STRAND PRODUCT DESCRIPTION:

New England Ropes Spun Classic Polyester 3-Strand rope is manufactured from spun polyester fibers, resulting in a soft surface with excellent grip ability.

### FEATURES:

- Moderate elongationVery good abrasion re-
- sistance

  Sure gripping surface
- Excellent wet/dry strength retention
- Soft & flexible, easy to handle
- Holds knots well
- · Easy-to-splice

## **APPLICATIONS:**

#### Yachting

• Running rigging on "traditional boats"

### Equestrian

Halters

## MULTILINE II PRODUCT DESCRIPTION:



Multiline II is a 3-strand composite rope. It's unique construction combines cover yarns of 100% filament and spun polyester wrapped around a polyolefin core (smaller than 1/2" dia. does not have polyolefin core). Multiline-II provides the greatest durability, highest strength, lightest weight,

and most consistent supple feel over time, of any similar composite rope.

## **FEATURES:**

- Low elongation
- Very good abrasion resistance
- · Stays flexible and very easy-to-handle
- Splices well
- Sure gripping surface
- Holds knots well
- · Renders well around blocks, sheaves,
- and winches
- Long service life
- Environmentally stable/will not rot

## **APPLICATIONS:**

### **Utility Industry**

- Block lines
- Pilot lines
- Hoisting/bull ropes
- Distribution stringing
- Underground pulling lines

#### Industrial

- Hoisting/bull ropes
- Tie downs
- Truck rope
- Slings

### **Commercial Fishing**

- Tackle ropes
- Lifter ropes
- Net hanging
- Deep sea pot lines

### **Theater Industry**

- Counterweight rigging
- Drop lines

#### Arborist

Bull ropes

retention FEA

## High Strength



## T-900 Technora/Spectra<sup>®</sup> Core

## CHEMICALS:

Polyester has good resistance to most chemicals, except 95% sulfuric acid and strong alkalines at boil.

## SUNLIGHT/UV:

Very little degradation from UV. Can be used outside over long term if inspected regularly.

## **HEAT:**

Melting point of Polyester 480°F, progressive strength loss above 300° F; Spectra melting point 300° F, progressive strength loss above 150° F, Technora chars at 600° F.

## **DIELECTRICS:**

Good resistance to the passage of electrical current. However dirt, surface contaminants, water entrapment and the like can significantly affect dielectric properties. Extreme caution should be exercised any time a rope is in the proximity of live circuits.

### SHEAVES:

Recommended D/d ratio is 8:1

## **COATING:**

Can be Urethane coated to improve abrasion resistance, UV resistance and to create a water barrier.

SPECIFIC GRAVITY: 1.28

## COLOR:

White (red & blue tracer). Also available in Red, Green or Blue Fleck (red & blue tracer).

## WORKING LOADS:

No blanket working load recommendation can be made because it depends on the application and conditions of use, especially potential danger to personnel. It is recommended that the user establish working loads and safety factors based on professional and experienced assessments of risks. The working load is a guideline for the use of a rope in good condition for non-critical applications and should be reduced where life, limb, or valuable property is involved, or exceptional service such as shock, sustained loading, severe vibration, etc. The Cordage Institute specifies that the Safe Working Load of a rope shall be determined by dividing the Minimum Tensile Strength by the Safety Factor. Safety factors range from 5 to 12 for non-critical uses, 15 for life lines.

> SWL=<u>Minimum Break Strength</u> Safety Factor

## **STANDARD LENGTH:**

Available in standard 300 & 600 ft. lengths

## **SPLICING INSTRUCTIONS:**

Core to Core Eye Splice

## **FABRICATION SERVICES:**

Fabricated Units can be provided including splices, thimbles, integral chafe sleeves, etc. Contact Customer Service for details.

## SERIES:

275, 276

T-900 Strength/Weight				
Diameter Inch   mm		Weight Ibs./100 ft.	Tensile Ibs.	
1/4	6	2.4	4,400	
5/16	8	3.5	7,300	
3/8	9	4.2	10,000	
	10	5.5	11,800	
7/16	11	6.7	14,300	
1/2	12	8.0	17,000	
9/16	14	10.8	23,100	
5/8	16	14.0	30,200	
3/4	18	16.0	37,500	
13/16	20	18.0	50,000	
7/8	22	22.0	60,000	
	24	26.0	70,000	



Compliance to the above specifications is based upon testing according to the Cordage Institute Standard Testing Methods for Fiber Rope and/or ASTM D-4268 Standard Methods of Testing Fiber Ropes. Weights: Are average and may vary +-5%. Tensile strengths: Are approximate average for new, unused ropes. To estimate the minimum tensile strength of a new rope, reduce the approximate average by 15% (Cordage Institute defines minimum tensile strength as two standard deviations below the average tensile strength of the rope).