

Safety and Rescue Rope

by Teufelberger

	FERNO STATIC ROPE	PATRON	APEX	WATER RESCUE ROPE	NFPA THROW LINE
ROPE TYPE	Static	Static	Dynamic	Throwline	Throwline
DIAMETER	11 mm	11 mm	11 mm	11 mm	8 mm
SHEATH / CORE	Polyester / Nylon	Nylon / Nylon	Nylon / Nylon	Nylon / MFP	Polypropylene / Dyneema®
BRAID	32	32	48	20	16
SHEATH / CORE QUANTITY	47.1 / 52.9 %	35 / 65 %	29 / 71 %		
WEIGHT	91 g/m	75 g/m	81.8 g/m	78.9 g/m	29.8 g/m
SHRINKAGE	< 5 %	4 %	0		
AS 4142.3-1993	●				
EN 1891 A	●	●			
NFPA 1983:2017	●				NFPA 1983:2012 Throwlines
UIAA 101			●		
EN 892			●		
MIN. BREAKING STRENGTH	37.65 kN	33 kN	MAX IMPACT FORCE UIAA: 9.6 kN	16.45 kN	12.2 kN
KNOTTED BREAK STRENGTH	18.7 kN	18 kN	NUMBER OF FALLS (MIN): 13		
SEWN BREAK STRENGTH	21 kN	21 kN	NUMBER OF FALLS (AVG): 15		
ELONGATION @ 784 N	1.5 %	-	DYNAMIC ELONGATION: 29 %		
ELONGATION @ 50 - 150 KG	1.8 %	3 %	STATIC ELONGATION: 4.8 %		
ROPE FEATURES	<ul style="list-style-type: none"> • High tensile strengths • High abrasion resistance • Excellent UV protection • Superior handling and knot holding characteristics • Optimal sheath/core ratio limits rotation, bounce, and stretch • Extremely versatile rope 	<ul style="list-style-type: none"> • Twisted core for high MBS • Extra light weight • High dirt resistance with good grip • High abrasion protection • EN 353-2-certified with Petzl ASAP and ASAP Lock • EN 341 A-certified with Anthon DSDplus 	<ul style="list-style-type: none"> • Supple handling • Extremely durable • Rope runs freely • Excellent knotability • Endura DRY treatment of rope core keeps water out of the core and lubricates core fibres for better abrasion resistance 	<ul style="list-style-type: none"> • Spliceable rope • Floats just under water surface • High visibility while in use • High load capacity • Good grip 	<ul style="list-style-type: none"> • Light and extremely strong • Easily packable • Floats indefinitely • Soft hand • Double braid
COLOURS	<ul style="list-style-type: none"> Black / Red Fleck VTB C4C81-14-200 Solid Red VTB C4C71-14-200 Solid Blue VTB C4C73-14-200 Solid Black VTB C4C74-14-200 Solid Orange VTB C4C75-14-200 	<ul style="list-style-type: none"> White with red fleck VTB 7360931 Black (special order) VTB 7360939 	<ul style="list-style-type: none"> Blue / Yellow (SPRING) VTB 3402-10 	<ul style="list-style-type: none"> Yellow with red fleck VTB 2371-14 	<ul style="list-style-type: none"> Yellow VTB C2336-08
LENGTHS	Std Roll: 200 m	Std Roll: 200 m	Std Roll: 200 m	Std Roll: 183 m / 600 ft	Std Roll: 183 m / 600 ft
APPLICATIONS					
RESCUE	●	●			
WATER SAFETY / RESCUE				●	●
MILITARY	●	●	●		
FALL ARREST	●	●	●		
WORK POSITIONING	●	●			
RAPPELLING	●	●			
HAULING	●				
CAVING & CANYONEERING	●	●	●		
GYM CLIMBING	●	●	●		
CHALLENGE COURSE	●	●	●		

Typing errors and technical changes reserved. Data provided by manufacturer are typical values without warranty or guarantee.

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	VULCANUS	LT PRUSIK
ROPE TYPE	Static	Accessory Cord
DIAMETER	10.5 mm	6 mm / 8 mm
SHEATH / CORE	Technora® / Nylon	Polyamide / Polyamide
BRAID	32	32
SHEATH / CORE QUANTITY	36 / 64 %	
WEIGHT	74 g/m	6 mm: 25.3 g/m 8 mm: 40.2 g/m
SHRINKAGE	0.4 %	
AS 4142.3-1993		
EN 1891 A	●	
NFPA 1983:2017		
UIAA 101		
EN 892		
MIN. BREAKING STRENGTH	32 kN	6mm: 7.8 kN 8mm: 13.8 kN
KNOTTED BREAK STRENGTH	18 kN	
SEWN BREAK STRENGTH	21kN	
ROPE FEATURES	<ul style="list-style-type: none"> Highly heat resistant rope High strength, low elongation at break Increased resistance to cutting and abrasion Well suited for work near heat sources and sharp edges Suitable for fast abseiling procedures in rapid succession 	<ul style="list-style-type: none"> Firm yet supple Excellent balance between knotability and grip. Engineered for smooth, controlled movement over the rope and easy untying of knots Torque free construction from 100% polyamide Smooth surface structure for high user comfort
COLOURS	Gold-Technora® Natura VTB 7360048	Unsewn 6mm Red VTB 3821-06 Unsewn 8mm Green VTB 3822-08 6mm x 55cm Lt Blue VTB C5MZ03F-06-002 6mm x 40cm Red VTB C5MZ01-06-001 8mm x 55cm Burgundy VTB C5MZ01F-08-001 8mm x 40cm Green VTB C5MZ02F-08-002
LENGTHS	Standard Length = 700 m	Pre-Sewn Loops: 40 cm & 55 cm Unsewn Rolls: 91.5 m / 300 ft
APPLICATIONS		
RESCUE	●	●
WATER SAFETY / RESCUE		
MILITARY	●	●
FALL ARREST	●	
WORK POSITIONING	●	●
RAPPELLING	●	
HAULING		●

Source: ¹ Cancord Inc. Rope Fibers www.cancord.com

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ROPE ONLINE



Fibre Treatments

Endura Standard DRY

Endura DRY is a multi-stage application to protect ropes against water. For standard dry ropes, the coating is applied to the individual core yarns prior to the braiding process. The dry-treated cores are covered by a durable, protective sheath to lock in the water-blocking power of the Endura coating. The APEX rope features this treatment.

Rope Construction

Kernmantle

Features a 32-carrier, 40-carrier or 48-carrier sheath that protects the core from grit and particle absorption. The sheath is designed to generate some grab and friction for rappelling and lowering operations. The core is comprised of bundles of fibre that are either parallel or twisted, depending on the required performance. These bundles help to keep the rope firm yet flexible.

Double Braid

A braided core inside a braided cover produces an easy-to-handle rope that is strong and very durable. Since the rope consists of two individual parts, it is possible to combine different fibres to create ropes merging specific characteristics of different raw materials.

Rope Fibres

Nylon (NY) / Polyamide (PA)

- High breaking load as well as high elongation
- Used in products that are required to absorb shock loads
- Abrasion resistance is better in wet conditions than in dry because nylon tends to take up water (up to 7%).
- Can become stiff if kept in wet conditions for too long
- Lower resistance to UV-radiation in sunlight compared to polyester.

Polyester (PES)

- Static ropes made from PES exhibit good breaking loads with low stretch
- Good UV resistance, salt water resistance, rot and mildew resistance
- Good abrasion strength in both wet and dry conditions
- Dynamic energy absorption capacity is much lower than nylon ropes

Polypropylene (PP)

- Only used for simple applications due to its limited technical characteristics.
- Very light, buoyant in water
- Low strength relative to other synthetic fibres
- Unaffected by water

¹Dyneema®

- Resistant to bleaches, other oxidizing agents and most solvents. Acid and alkali resistant.
- Light weight and high strength
- Unaffected by water and sea water
- Susceptible to gradual elongation under load
- Fair UV resistance

¹Technora®

- Exceptional heat resistance (decomposes at 500° Celsius same as Kevlar®)
- High strength and good abrasion resistance
- Resistant to acids, weak alkalis, organic solvents, sea water, steam
- Poor UV resistance