EN

67 YEARS
OF ROPE MANUFACTURING

THE TRADITION OF PRODUCTION OF TEXTILE ROPES IN BOLATICE DATES BACK TO 1949. THE LANEX BRAND HAS BEEN EXPANDING SUCCESSFULLY SINCE THE NINETIES OF THE 20TH CENTURY.

TODAY, TENDON IS A YOUNG BUT WELL-KNOWN AND GLOBALLY SUCCESSFUL BRAND OF STATIC AND DYNAMIC ROPES. THANKS TO OUR KNOW-HOW AND THE LONG-TERM COOPERATION WITH UNIVERSITIES, RESEARCH INSTITUTES AND CERTIFIED LABORATORIES, WE BECAME A SUPPLIER TO THE MOST DEMANDING CLIENTS IN THE WORLD.

ALL OUR HIGH-PERFORMANCE AND INNOVATIVE PRODUCTS ARE BEING DEVELOPED AND PRODUCED IN THE CZECH REPUBLIC. OUR PRODUCTS ARE CERTIFIED AND IN FULL CONFORMITY WITH MANY INTERNATIONAL SAFETY STANDARDS..

CONTENT

TEFIX

TECHNOLOGY

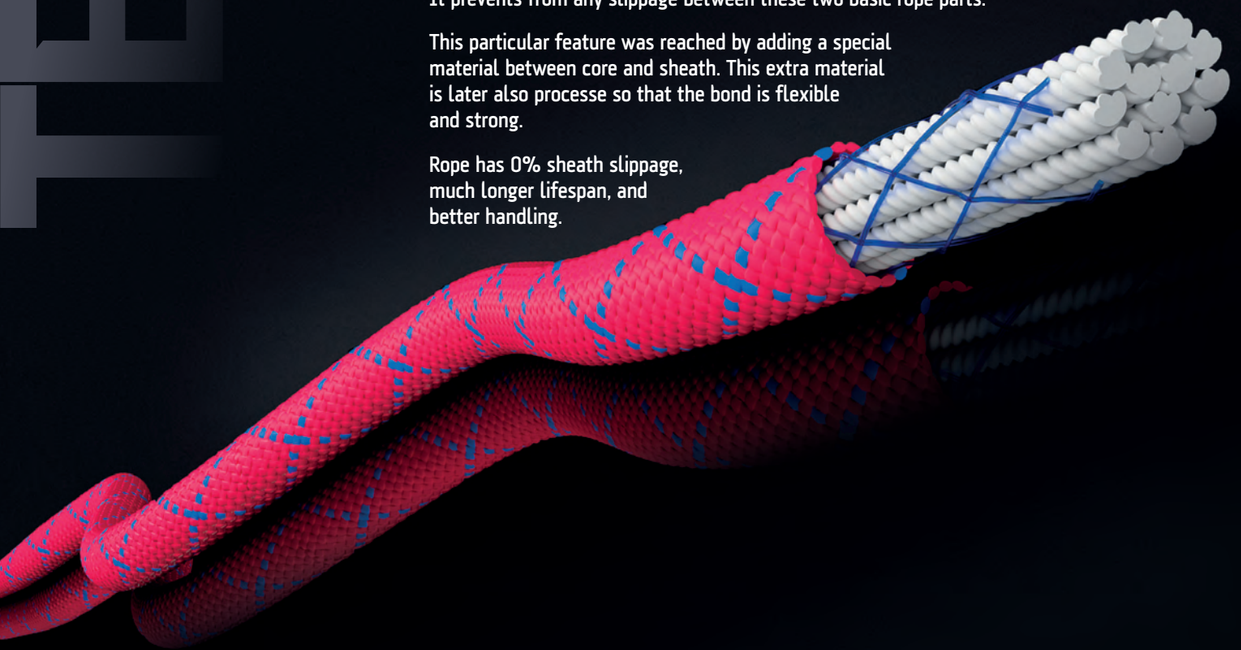
teFIX

The TeFIX patented technology permanently bonds the sheath to the core.

It prevents from any slippage between these two basic rope parts.

This particular feature was reached by adding a special material between core and sheath. This extra material is later also processe so that the bond is flexible and strong.

Rope has 0% sheath slippage, much longer lifespan, and better handling.



LOWE

TECHNOLOGY

LOWE

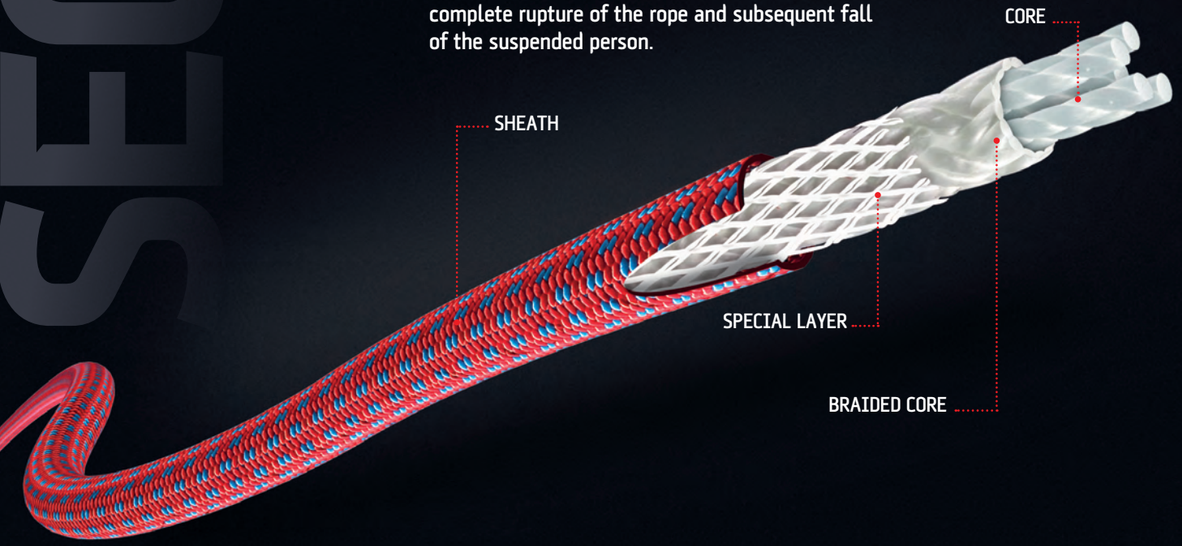
Thanks to the unique combination of materials which work together jointly and meet the stringent requirements of the EN 892 standard, we were able to reduce the weight while retaining a diameter acceptable to all climbers.

SECURE

TECHNOLOGY

SECURE

Thanks to the unique **sandwich-type construction** of braided layers and the use of specially developed staple fibres, the rope is able to hold the suspended person or load even in case of considerably damaged sheath or core without a complete rupture of the rope and subsequent fall of the suspended person.



SBS

TECHNOLOGY

SBS

SIMPLE BRAID SYSTEM - is system where each strand is plaited separatelly into the sheath construction and not in pair (tandem).

SBS braiding makes the sheath surface much more compact and smoother. Therefore ropes made by SBS generate much lower friction, are more resistant to abrasion and last longer while in contact with rocks.

WATER REPELLENT
UIAA

TECHNOLOGY

COMPLETE SHIELD

Maximum level of rope protection against water and abrasion. It is reached by using the new progressive NANOTECHNOLOGY method. Tiny particles of TEFLON®Eco are applied to the rope sheath and core and make a film of almost impermeable protective layer.

The rope fibres are then protected against dust and water which would othervise cause a harm to the rope construction.

COMPLETE SHIELD is an impregnation which extends the general lifespan of TENDON ropes significantly.

All ropes with the Complete Shield finish meet the UIAA 101 requirement for water repellent test.

SPORT CLIMBING

NEW

MASTER _8.6 ①

EN 892 / CE 1019

The thinnest single rope we offer. The low weight, which is only 50 g, makes it an ideal weapon, which will help you to send your hardest projects.

Rope diameter • [mm]	**8.6**
Weight • [g/m]	50
Number of UIAA falls	5
Max. impact force • [kN]	9.1
Sheath slippage • [%]	0.3
Static elongation • [%]	4.3
Dynamic elongation • [%]	30
Knotability	0.9

D086TM41C000C • VIOLET

MASTER _8.9 ① ⓪ ½

EN 892 / CE 1019

Another aggressive rope with double impregnation for hard climbing projects. Certified for use as a single, twin and half rope.

	①	½	⓪
Rope diameter • [mm]	**8.9**	**8.9**	**8.9**
Weight • [g/m]	52	52	52
Number of UIAA falls	5	16	29
Max. impact force • [kN]	8.7	6.1	9.6
Sheath slippage • [%]	0	0	0
Static elongation • [%]	6.9	6.9	6.9
Dynamic elongation • [%]	33	30	27
Knotability	0.8	0.8	0.8

D089TM41C000C • GREEN

D089TM42C000C • RED

MASTER _9.1 ① ⓪ ½

EN 892 / CE 1019

Sport climbing rope for you hard projects with a remarkable weight and comfortable diameter. You can also use it as a half or twin rope in the mountains.

	①	½	⓪
Rope diameter • [mm]	**9.1**	**9.1**	**9.1**
Weight • [g/m]	56	56	56
Number of UIAA falls	5	17	42
Max. impact force • [kN]	9	6.9	11.1
Sheath slippage • [%]	0.3	0.3	0.3
Static elongation • [%]	6.4	6.4	3.7
Dynamic elongation • [%]	29	27	24
Knotability	0.8	0.8	0.8

D091TM41C000C • RED

D091TM42C000C • GREEN

MASTER PRO _9.2 ①

EN 892 / CE 1019

This innovation from 2017 defeats the stigma that thin ropes are not durable. You don't need to carry one rope for practicing and another one for redpoint. Innovated, extremely fine SBS sheath significantly prolongs its lifespan. The rope is at the same time soft enough and easy to work with. If you're looking for a devoted friend for sport climbing, this is your choice.

Rope diameter • [mm]	**9.2**
Weight • [g/m]	58
Number of UIAA falls	9
Max. impact force • [kN]	9.1
Sheath slippage • [%]	0.3
Static elongation • [%]	6.1
Dynamic elongation • [%]	31
Knotability	1

D092TP41C000C • RED

D092TP43C000C • TURQUOISE

NEW

ADVANCED

MASTER _9.7 TEFIX ①

EN 892 / CE 1019

Technologies keep advancing. Favorite MASTER 9.7 with TeFIX technology became even more safer and durable than its older brother. Permanent connection of a core and sheath ensures that the sheath cannot shift. Check the fresh design!

Rope diameter • [mm]	**9.7**
Weight • [g/m]	61
Number of UIAA falls	8
Max. impact force • [kN]	8.2
Sheath slippage • [%]	0
Static elongation • [%]	8
Dynamic elongation • [%]	35
Knotability	0.8

D097MF41S000C • TURQUOISE

D097MF42S000C • PINK

MASTER _9.4 ①

ADVANCED

EN 892 / CE 1019

MASTER 9.4 with a small diameter but durable SBS sheath construction. Ideal for average climbers who want to keep pushing their limits.

Rope diameter • [mm]	**9.4**
Weight • [g/m]	58
Number of UIAA falls	5-7
Max. impact force • [kN]	7
Sheath slippage • [%]	0
Static elongation • [%]	6.2
Dynamic elongation • [%]	37
Knotability	0.9

D094TM41S000C • VIOLET

D094TM42S000C • BLUE

D094TM44S000C • BRIGHT ORANGE

MASTER _9.7 ①

ADVANCED

EN 892 / CE 1019

One of the most favorite ropes among our customers. MASTER 9.7 is time-proven - it offers an ideal diameter, SBS sheath, and a long lifespan. One of the best ropes for rock climbing you can get. Offers an excellent value for money.

Rope diameter • [mm]	**9.7**
Weight • [g/m]	61
Number of UIAA falls	7-8
Max. impact force • [kN]	7
Sheath slippage • [%]	0.1
Static elongation • [%]	6.3
Dynamic elongation • [%]	36
Knotability	0.9

D097TV41S000C • YELLOW

D097TV42S000C • GREEN

D097TV45S000C • BICOLOUR

LOWE _9.7 ①

ADVANCED

EN 892 / CE 1019

The favorite rope of Adam Ondra. Our unique technology lowers the weight of the rope keeping the ideal diameter. An excellent choice for all sport climbing areas.

Rope diameter • [mm]	**9.7**
Weight • [g/m]	55
Number of UIAA falls	6
Max. impact force • [kN]	8.6
Sheath slippage • [%]	-0.15
Static elongation • [%]	7.4
Dynamic elongation • [%]	32
Knotability	1

D097TW41S000C • GREEN

D097TW42S000C • BLUE

AMBITION _9.8 ①

BEGINNER

EN 892 / CE 1019

As its name suggests, this rope is both for beginners and ambitious climbers who pursue climbing outside and indoors. It offers outstanding value for money. It has a universal diameter.

Rope diameter • [mm]	**9.8**
Weight • [g/m]	64
Number of UIAA falls	9
Max. impact force • [kN]	7.1
Sheath slippage • [%]	0
Static elongation • [%]	6.2
Dynamic elongation • [%]	35
Knotability	0.8

D098TR41S000C • YELLOW

D098TR42S000C • GREEN

D098TR45S000C • BICOLOUR

D098TR48S000C • BRIGHT YELLOW

HATTRICK _9.7 ①

ADVANCED

EN 892 / CE 1019

The diameter 9.7 is preferred by most of the climbers and SECURE technology makes this rope safer and more durable. The rope is much more resistant to mechanical damage thanks to SBS construction of the sheath.

Rope diameter • [mm]	**9.7**
Weight • [g/m]	61
Number of UIAA falls	5
Max. impact force • [kN]	8.4
Sheath slippage • [%]	0
Static elongation • [%]	9.0
Dynamic elongation • [%]	29
Knotability	1

D097TH41S000C • GREEN/BLUE

D097TH42S000C • RED/BLUE

AMBITION _10 ①

BEGINNER

EN 892 / CE 1019

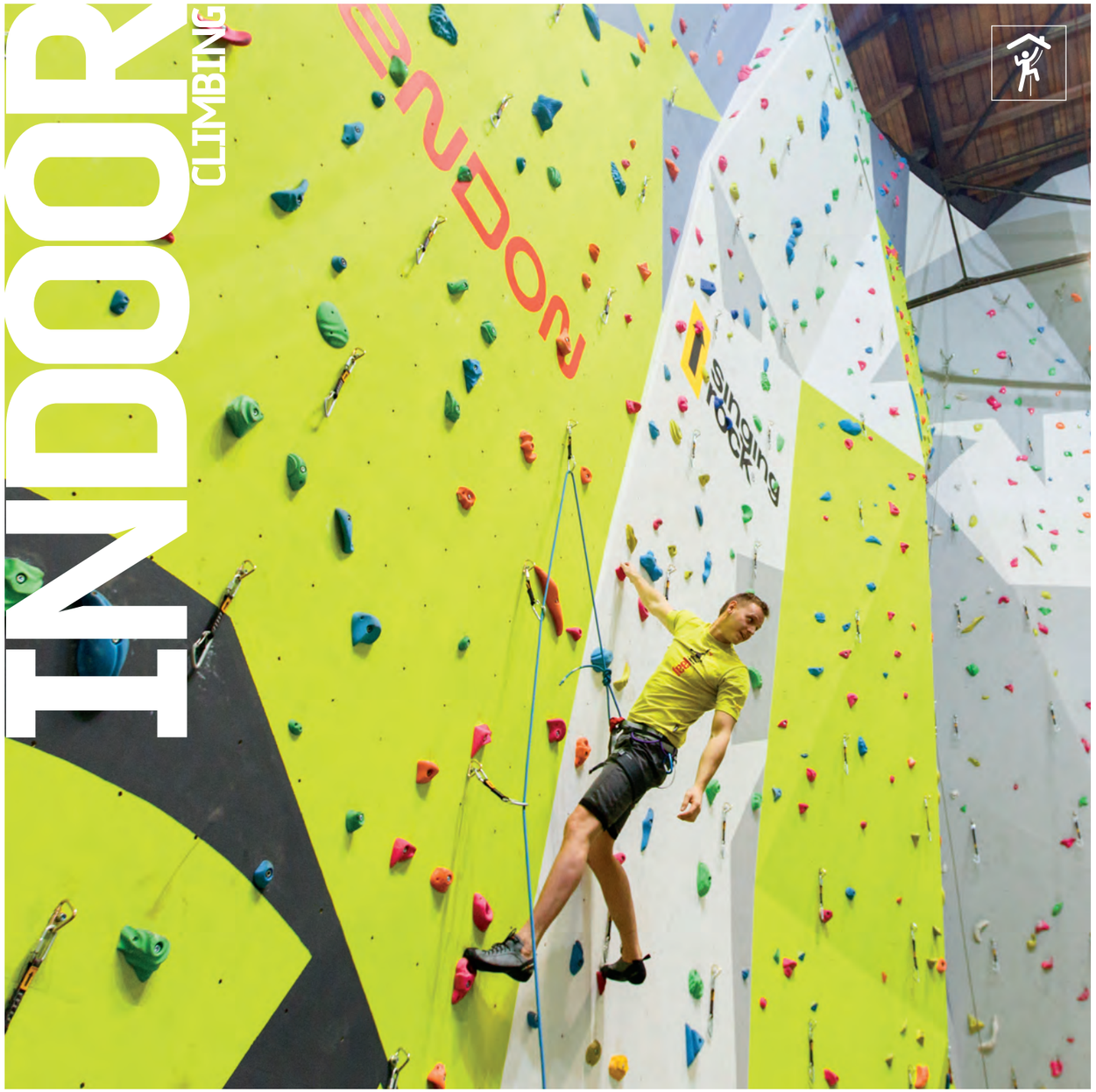
AMBITION 10.0 is designed especially for beginners. Wider diameter combined with SBS sheath offers an impressive performance and long lifespan.

Rope diameter • [mm]	**10**
Weight • [g/m]	67
Number of UIAA falls	9
Max. impact force • [kN]	7.8
Sheath slippage • [%]	0.1
Static elongation • [%]	5.7
Dynamic elongation • [%]	33
Knotability	1

D100TA41S000C • RED

D100TA42S000C • BLUE

INDOOR CLIMBING



HATTRICK _9.9 ①

EN 892 / CE 1019

BEGINNER

An ideal choice for top-rope climbing in gyms. Our SECURE technology prevents the sheath from shifting and prolongs the lifespan of the rope. Perfect for rentals or for permanent hanging in gyms for top-roping.

Rope diameter • [mm]	**9.9**
Weight • [g/m]	65
Number of UIAA falls	9
Max. impact force • [kN]	7.8
Sheath slippage • [%]	0
Static elongation • [%]	8.9
Dynamic elongation • [%]	32
Knotability	1

D099TH41S000C • GREEN/RED

D099TH42S000C • BLUE/GREEN

INDOOR _10.2i ①

EN 892 / CE 1019

BEGINNER

A rope with braided core developed especially for top-rope climbing at gyms. Suitable for climbing schools and rentals.

Rope diameter • [mm]	**10.2**
Weight • [g/m]	68
Number of UIAA falls	7
Max. impact force • [kN]	8.8
Sheath slippage • [%]	0
Static elongation • [%]	7.2
Dynamic elongation • [%]	32
Knotability	0.9

D102TI41S000C • RED/YELLOW

D102TI42S000C • YELLOW/GREY

NEW

AMBITION _10.2 TEFIX ①

EN 892 / CE 1019

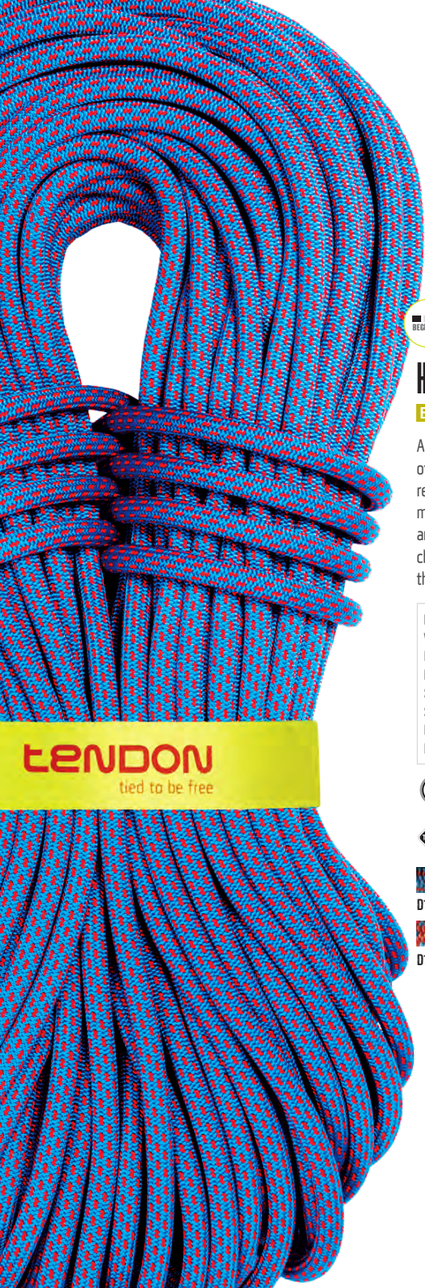
BEGINNER

An new version of a robust rope AMBITION 10.2 enriched with TeFIX technology. The fact that the core is connected with the sheath prevents the sheath from shifting and provides a maximum possible safety in case of the sheath damage. An ideal rope which will guide you through many vertical miles.

Rope diameter • [mm]	**10.2**
Weight • [g/m]	67
Number of UIAA falls	11
Max. impact force • [kN]	8.3
Sheath slippage • [%]	0
Static elongation • [%]	6.9
Dynamic elongation • [%]	33
Knotability	0.8

D102AF41S000C • YELLOW

D102AF42S000C • ORANGE



BEGINNER

HATTRICK _10.2 ①

EN 892 / CE 1019

A rope with SECURE technology that offers less UIAA falls than closely related Hattrick 9.9 but has much more massive sheath that ensures durability and a long lifespan of the rope. Perfect choice for rentals and permanent use in the climbing gyms (top-roping).

Rope diameter • [mm]	**10.2**
Weight • [g/m]	66
Number of UIAA falls	5
Max. impact force • [kN]	8.2
Sheath slippage • [%]	0
Static elongation • [%]	5.4
Dynamic elongation • [%]	33
Knotability	0.9

D102TH41S000C • BLUE

D102TH42S000C • RED

INDOOR _10.4 ①

BEGINNER

EN 892 / CE 1019

A rope with braided core developed especially for top-rope climbing at gyms. Suitable for climbing schools and rentals.

Rope diameter • [mm]	**10.4**
Weight • [g/m]	72
Number of UIAA falls	8-9
Max. impact force • [kN]	7.7
Sheath slippage • [%]	0.1
Static elongation • [%]	6.5
Dynamic elongation • [%]	35
Knotability	1

D104TI41S000C • BLUE/GREEN

D104TI42S000C • RED/GREY

AMBITION _10.5 ①

BEGINNER

EN 892 / CE 1019

Thicker ropes are ideal for beginners because they make falls easier to catch using the belaying device and thus they make climbing safer. You can use this rope at crags as well.

Rope diameter • [mm]	**10.5**
Weight • [g/m]	69
Number of UIAA falls	9-10
Max. impact force • [kN]	7.9
Sheath slippage • [%]	0
Static elongation • [%]	6
Dynamic elongation • [%]	34
Knotability	0.8

D105TA41S000C • RED

D105TA42S000C • BLUE

D105TA47S000C • BRIGHT GREEN

AMBITION _10.2 ①

BEGINNER

EN 892 / CE 1019

Increased number of cores makes this rope a strong and long-lasting climbing companion. We have counted 12-13 UIAA falls. This rope is ideal for beginners or for practicing of routes. Pick one of the splendid designs!

Rope diameter • [mm]	**10.2**
Weight • [g/m]	67
Number of UIAA falls	12-13
Max. impact force • [kN]	7.1
Sheath slippage • [%]	0.1
Static elongation • [%]	6.1
Dynamic elongation • [%]	36
Knotability	0.8

D102TM41S000C • YELLOW

D102TM42S000C • BLUE

TRUST _11 ①

BEGINNER

EN 892 / CE 1019

Massive, safe rope with extremely long lifespan. Designed for heavy usage in rope training centers and climbing schools.

Rope diameter • [mm]	**11**
Weight • [g/m]	79
Number of UIAA falls	16
Max. impact force • [kN]	8.1
Sheath slippage • [%]	0.1
Static elongation • [%]	6.1
Dynamic elongation • [%]	34
Knotability	0.9

D110TT41S000C • RED

D110TT42S000C • YELLOW

AMBITION _10 ①

BEGINNER

EN 892 / CE 1019

AMBITION 10.0 is designed especially for beginners. Wider diameter combined with SBS sheath offers an impressive performance and long lifespan.

Rope diameter • [mm]	**10**
Weight • [g/m]	67
Number of UIAA falls	9
Max. impact force • [kN]	7.8
Sheath slippage • [%]	0.1
Static elongation • [%]	5.7
Dynamic elongation • [%]	33
Knotability	1

D100TA41S000C • RED

D100TA42S000C • BLUE

TRUST _11.4 ①

BEGINNER

EN 892 / CE 1019

Massive, safe rope with extremely long lifespan. Designed for heavy usage in rope training centers and climbing schools.

Rope diameter • [mm]	**11.4**
Weight • [g/m]	84
Number of UIAA falls	20
Max. impact force • [kN]	8.4
Sheath slippage • [%]	0.1
Static elongation • [%]	5.5
Dynamic elongation • [%]	34
Knotability	1

D114TA41S000C • YELLOW

D114TA42S000C • BLUE

MOUNTAINEERING AND ALPINISM

MASTER _7.0 ⓪

EXPERT

EN 892 / EN 564 / CE 1019

The lightest twin rope in the world. Only 34 grams per meter and still perfectly safe. Ideal for extreme climbing projects or as an ultra-light rope for ski-tourists. You won't even notice this rope in your bag due to its weight and size. Certified for use as a twin rope exclusively.

Rope diameter • [mm]	**7**
Weight • [g/m]	34
Number of UIAA falls	14
Max. impact force • [kN]	8.9
Sheath slippage • [%]	0
Static elongation • [%]	3.6
Dynamic elongation • [%]	33
Knotability	0.9

D070TM41C000C • RED

D070TM42C000C • BLUE

MASTER _8.9 ① ⓪ ½

ADVANCED

EN 892 / CE 1019

You can use the rope to tie in whole group on a glacier, clip it as half or twin ropes to get over a rock step, and when you will be coming home from the mountains, you will drop by a local sport crag. A truly versatile rope.

	①	½	⓪
Rope diameter • [mm]	**8.9**	**8.9**	**8.9**
Weight • [g/m]	52	52	52
Number of UIAA falls	5	16	29
Max. impact force • [kN]	8.7	6.1	9.6
Sheath slippage • [%]	0	0	0
Static elongation • [%]	6.9	6.9	6.9
Dynamic elongation • [%]	33	30	27
Knotability	0.8	0.8	0.8

D089TM41C000C • GREEN

D089TM42C000C • RED

ALPINE _7.9 ½ ⓪

EXPERT

EN 892 / CE 1019

An ideal choice for various activities in the mountains. Mountain guides, ski-tourists as well as mountaineers will love its low weight of 39 g. We offer this rope even in short variants of 20 and 30 m.

	½	⓪
Rope diameter • [mm]	**7.9**	**7.9**
Weight • [g/m]	39	39
Number of UIAA falls	6	16
Max. impact force • [kN]	5.4	7.8
Sheath slippage • [%]	0	0
Static elongation • [%]	6.7	7
Dynamic elongation • [%]	34	32
Knotability	0.8	0.8

D079TL41S000C • RED

D079TL42S000C • YELLOW

MASTER _9.1 ① ⓪ ½

ADVANCED

EN 892 / CE 1019

If you go to mountains just occasionally and you don't want to invest into another pair of twin ropes then this one is your choice. You can also use it at your local crag on sport routes.

	①	½	⓪
Rope diameter • [mm]	**9.1**	**9.1**	**9.1**
Weight • [g/m]	56	56	56
Number of UIAA falls	5	17	42
Max. impact force • [kN]	9	6.9	11.1
Sheath slippage • [%]	0.3	0.3	0.3
Static elongation • [%]	6.4	6.4	3.7
Dynamic elongation • [%]	29	27	24
Knotability	0.8	0.8	0.8

D091TM41C000C • RED

D091TM42C000C • GREEN

MASTER _7.8 1/2 ∞

EN 892 / CE 1019

ADVANCED

Low weight, perfect attributes. The rope for those who feel at home in mountains. The Complete Shield technology protects the rope from water and dirt. You can choose from four distinct color patterns.

	1/2	∞
Rope diameter • [mm]	**7.8**	**7.8**
Weight • [g/m]	38	38
Number of UIAA falls	6	16
Max. impact force • [kN]	5.2	7.9
Sheath slippage • [%]	0	0
Static elongation • [%]	6.5	6.1
Dynamic elongation • [%]	32	33
Knotability	0.9	0.9

D078TD41S000C • RED/YELLOW

D078TD42S000C • BLUE

D078TD43S000C • GREEN/YELLOW

D078TD44S000C • RED

MASTER _8.5 1/2 ∞

EN 892 / CE 1019

BEGINNER

You will choose this rope if you seek the best ratio of lifespan and a diameter. Perfect as you first rope for mountaineering. Complete Shield coating is a matter-of-course.

	1/2	∞
Rope diameter • [mm]	**8.5**	**8.5**
Weight • [g/m]	46	46
Number of UIAA falls	10	14-17
Max. impact force • [kN]	5.1	7.7
Sheath slippage • [%]	0.1	0.1
Static elongation • [%]	7	7
Dynamic elongation • [%]	35	33
Knotability	0,8	0,8

D085TF41S000C • GREEN/YELLOW

D085TF42S000C • KHAKI/BLUE

LOWE _8.4 1/2 ∞

EN 892 / CE 1019

ADVANCED

You don't want extremely thin rope but you still aim for the lowest weight possible? There is no better option than this one. Our LOWE technology lowers the weight of the rope keeping an ideal diameter 8.4. You can save 0,5 kg with sixty-meter long double ropes. That's a deal, isn't it?

	1/2	∞
Rope diameter • [mm]	**8.4**	**8.4**
Weight • [g/m]	41	41
Number of UIAA falls	5	12
Max. impact force • [kN]	5	8.9
Sheath slippage • [%]	0	0
Static elongation • [%]	5.4	5.3
Dynamic elongation • [%]	31	27
Knotability	0.8	0.8

D084TW41S000C • BLUE

D084TW42S000C • YELLOW

AMBITION _8.5 1/2

EN 892 / CE 1019

BEGINNER

A lightweight half rope with great versatility and very high durability. All its technical specifications are designed to increase safety and broaden the range of suitable usage.

Rope diameter • [mm]	**8.5**
Weight • [g/m]	45
Number of UIAA falls	8
Max. impact force • [kN]	5
Sheath slippage • [%]	0.1
Static elongation • [%]	7
Dynamic elongation • [%]	38
Knotability	1

D085TB41S000C • YELLOW

D085TB42S000C • BLUE

ADVANCED

NEW

MASTER _9.7 TEFIX ①

EN 892 / CE 1019

For the big walls you need a rope, which you can rely on. Even when you damage a sheath in one part, you don't have to be afraid. TeFIX technology connects the sheath with a core so that you can pass the damaged part and reach safety. That's not what an ordinary rope would offer you.

Rope diameter • [mm]	**9.7**
Weight • [g/m]	61
Number of UIAA falls	8
Max. impact force • [kN]	8.2
Sheath slippage • [%]	0
Static elongation • [%]	8
Dynamic elongation • [%]	35
Knotability	0.8

D097MF41S000C • TURQUOISE

D097MF42S000C • PINK

EXPERT

HATTRICK _9.7 ①

EN 892 / CE 1019

If you prefer small diameters but you don't want to underestimate the safety, there is no better option than Hattrick 9.7 or Master TeFIX 9.7. SBS construction of the sheath together with a SECURE technology make this rope safe, long-lasting and prevents the sheath from shifting.

Rope diameter • [mm]	**9.7**
Weight • [g/m]	61
Number of UIAA falls	5
Max. impact force • [kN]	8.4
Sheath slippage • [%]	0
Static elongation • [%]	9.0
Dynamic elongation • [%]	29
Knotability	1

D097TH41S000C • GREEN/BLUE

D097TH42S000C • RED/BLUE

EXPERT

HATTRICK _9.9 ①

EN 892 / CE 1019

A truly comfortable rope that has all the attributes you need to enjoy your climbing. The SECURE technology prevents the sheath from slippage and prolongs the lifespan of the rope. Strong core that endures 9 UIAA falls.

Rope diameter • [mm]	**9.9**
Weight • [g/m]	65
Number of UIAA falls	9
Max. impact force • [kN]	7.8
Sheath slippage • [%]	0
Static elongation • [%]	8.9
Dynamic elongation • [%]	32
Knotability	1

D099TH41S000C • GREEN/RED

D099TH42S000C • BLUE/GREEN

BW

HATTRICK _10.2 ①

EN 892 / CE 1019

The massive sheath of this rope ensures safety and a long lifespan. As other ropes for big wall climbing, this one offers SECURE technology for your security.

ADVANCED

Rope diameter • [mm]	**10.2**
Weight • [g/m]	66
Number of UIAA falls	5
Max. impact force • [kN]	8.2
Sheath slippage • [%]	0
Static elongation • [%]	5.4
Dynamic elongation • [%]	33
Knotability	0.9

D102TH41S000C • BLUE

D102TH42S000C • RED

NEW

AMBITION _10.2 TEFIX ①

ADVANCED

EN 892 / CE 1019

The most robust and safest rope into big walls from our catalogue. TeFIX technology holds the core and the sheath firmly together so that in case of emergency you can use the rope even when the sheath is ripped.

Rope diameter • [mm]	**10.2**
Weight • [g/m]	67
Number of UIAA falls	11
Max. impact force • [kN]	8.3
Sheath slippage • [%]	0
Static elongation • [%]	6.9
Dynamic elongation • [%]	33
Knotability	0.8

D102AF41S000C • YELLOW

D102AF42S000C • ORANGE

SPELEO AND CANYONING

CANYON WET, CANYON GRANDE

CE 1019

CANYON GRANDE _ This rope is easily knotted and soft even after repeated immersion into the water. Its bright colors contrast well with the color of the water, it is highly resistant to abrasion and offers increased water-resistance. Thanks to the materials used, the rope has lower absorbability and floats on the surface.

CANYON WET _ Rope variation which doesn't float on water due to materials used (PA) meets requirement of EN 1891 type A.

	CANYON GRANDE** 10	CANYON WET 10
Diameter • [mm]	**61**	**66**
Weight • [g/m]	20*	12
Number of falls (min.)	49	33
Relative mass of sheath • [%]	2.6	2.7
Sheath slippage • [mm]	3.2	2.1
Elongation (50 – 150 kg) • [%]	1.7	0.8
Shrinkage • [%]	18	30
Tenacity • [kN]	12	17
Min. tenacity with knots • [kN]	PA/PPV	PA
Used material	-	A / EN 1891
Type	Yes	No
Floating		

* weight 55 kg, fall factor 1
** tested according to EN 1891 type B except min. tenacity and material

CANYON WET 10	+	+	+	+	+
CANYON GRANDE 10	+	+	–	+	+

C100TC41S000C • YELLOW • CANYON GRANDE
C100TW48W000C • ORANGE • CANYON WET

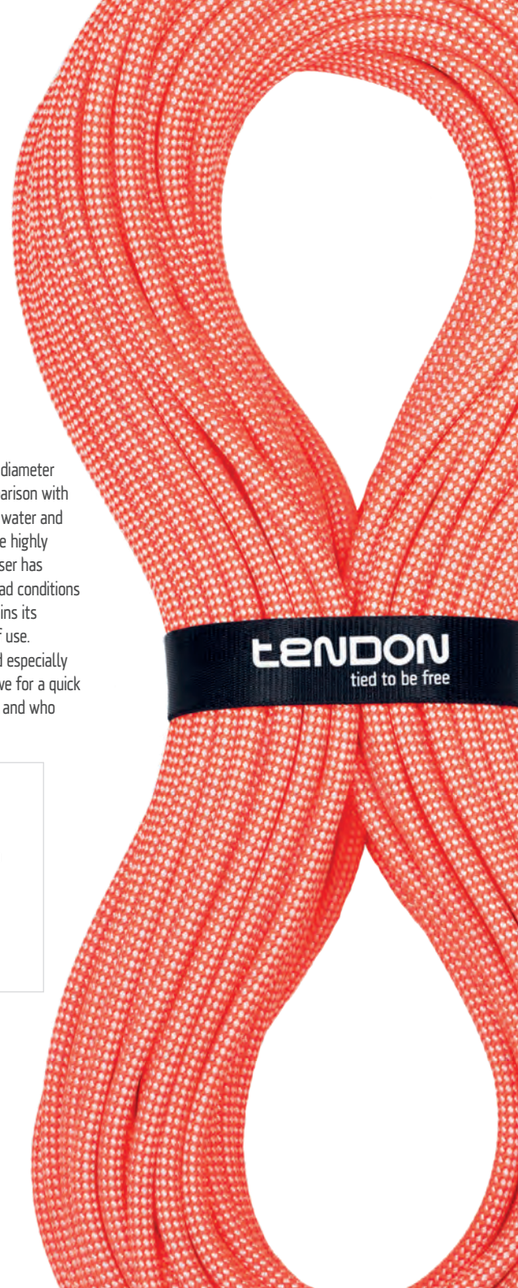
CANYON DRY _9.0

EN 1891 / CE 1019

New polyamide rope with a smaller diameter of 9 mm has a teflon finish in comparison with the other types, which increases its water and abrasion resistance considerably. The highly visible colour guarantees that the user has under control any situation where bad conditions prevail. The rope is flexible and retains its softness even after a long period of use. CANYON DRY 9.0 will be appreciated especially by experienced canyoneers who strive for a quick and smooth advancement above all and who care about every gram of load.

Diameter • [mm]	**9**
Weight • [g/m]	59
Number of falls (min.)	16
Relative mass of sheath • [%]	44
Sheath slippage • [%]	0,20
Elongation (50 – 150 kg) • [%]	3,6
Shrinkage • [%]	1
Tenacity • [kN]	28
Min. tenacity with knots • [kN]	18,4
Used material	PA
Type	A

C090TD41C000C • RED



SPELEO_9–11

EN 1891 / CE 1019

Low stretch, high static strength, and exceptional resistance to abrasion are the qualities most valued among cavers. Polyester sheath is built to endure higher thermal stress during abseiling on 10.5 special rope.

Diameter • [mm]	9	10	10.5	10.5 SPECIAL	11
Weight • [g/m]	48	66	72	76	77
Number of falls (min.)	12	20	20	12	20
Relative mass of sheath • [%]	44	42	46	51	42
Sheath slippage • [mm]	1	0	2	1	2
Elongation (50 – 150 kg) • [%]	4.1	3.5	3.4	3.5	3.3
Shrinkage • [%]	2.2	1.8	1.9	0.3	1.8
Tenacity • [kN]	23	29	30	33	34
Min. tenacity with knots • [kN]	12	16	17	15	19
Used material	PA	PA	PA	PES/PA	PA
Type	B	A	A	A	A
Floating	-	-	-	-	-

SPELEO	+	+	+	+
SPELEO SPECIAL	+	+	–	+

S105TG41S000C SPECIAL • WHITE/BLUE

S090TS41S000C • WHITE/ORANGE
S100TS41S000C • WHITE/ORANGE
S105TS41S000C • WHITE/ORANGE
S110TS41S000C • WHITE/ORANGE

SALAMANDER

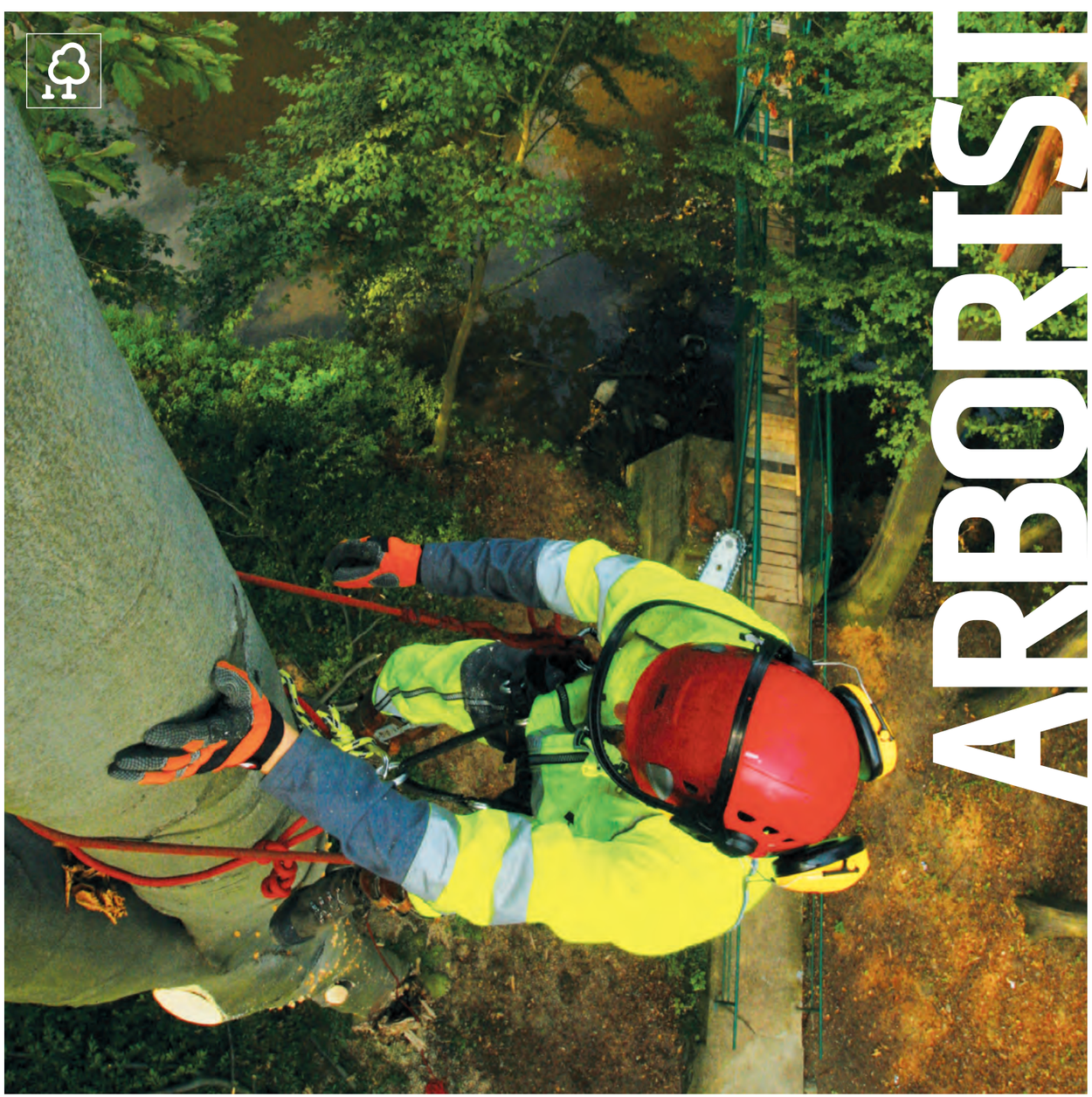
CE 1019

The best choice among the canyoning ropes. Light, floating rope with our SECURE technology keeps its outstanding qualities for a long time. Its construction and applied materials help to minimize shrinking of the rope in wet conditions. It has stronger, coarser sheath and thanks to the production technology, this rope is minimally dynamic.

Diameter • [mm]	10.2*
Weight • [g/m]	60
Number of falls (min.)	20**
Relative mass of sheath • [%]	47
Sheath slippage • [mm]	0
Elongation (50 – 150 kg) • [%]	2.6
Shrinkage • [%]	0
Tenacity • [kN]	23
Min. tenacity with knots • [kN]	12
Used material	PA/PPV
Type	-
Floating	Yes

* tested according to EN 1891 type B except material and number of falls
** weight 55 kg. fall factor 1

C102TS41S000C • YELLOW/RED • SALAMANDER



ARBORIST

TIMBER SET

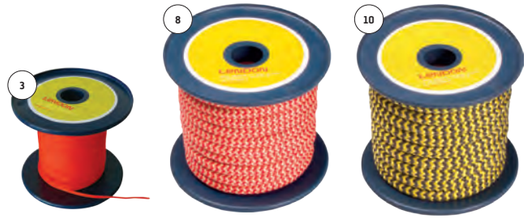
The Set is completed with a throwline, an accessory cord, a throw bag, prusiks and harness, all in high quality and in colours that are markedly visible in treetops.

ACCESSORY CORD

CE 1019

Rope diameter • [mm]	3	8	10
Weight • [g/m]	2.5	54.3	73
Tenacity • [kN]	0.8	20	25
Used material	PE	PES/TECHNORA	

TIMBER 3	–	–
TIMBER 8	+	+
TIMBER 10	+	–



A030TT41S000C

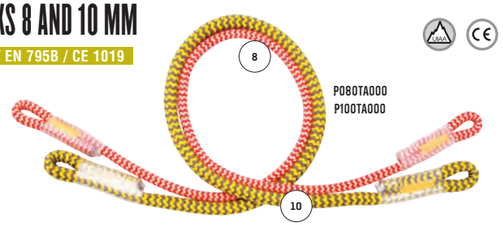
A080TP41S000C

EN 564

A100TP41S000C

PRUSIKS 8 AND 10 MM

EN 566 / EN 795B / CE 1019



P080TA000
P100TA000

The use of the PES/TECHNORA material combination results in a better thermal and mechanical resistance of the sheath. Supplied in any length or as prusiks made to measure with sewn eyes.

THROW BAG

XTIMBERBAG300 / XTIMBERBAG350 / XTIMBERBAG400

300 g 350 g 400 g

TIMBER SIT

EN 813 / EN 358 / CE 1019

A100TP41S000C

Is a fully adjustable harness for positioning which has been developed for the needs of arborists. It is equipped with a cushioned back support and leg loops adapted to work in hanging position, with adjustable buckles, lateral eyes and a suspension point according to EN 813:2008 and has adjustable aluminium shackles that exclude the risk of accidental unfastening. It is intended to be used primarily as a fall arrester, a protective equipment against falls from a height when working on trees. It provides a comfortable support in the lumbar area, great freedom of movement and high positioning comfort at work.

Timber sit	Weight
Size M-XL	1 780 g
Size XXL	1 820 g

LOWERING ROPE _15

Lowering rope 15 mm of a new construction with increased strength and reduced diameter. Very good handling during lowering and braking of loads.

Diameter • [mm]	15
Weight • [g/m]	172
Tenacity • [kN]	61
Used material	PES

L150TT41S000C • YELLOW/BLACK

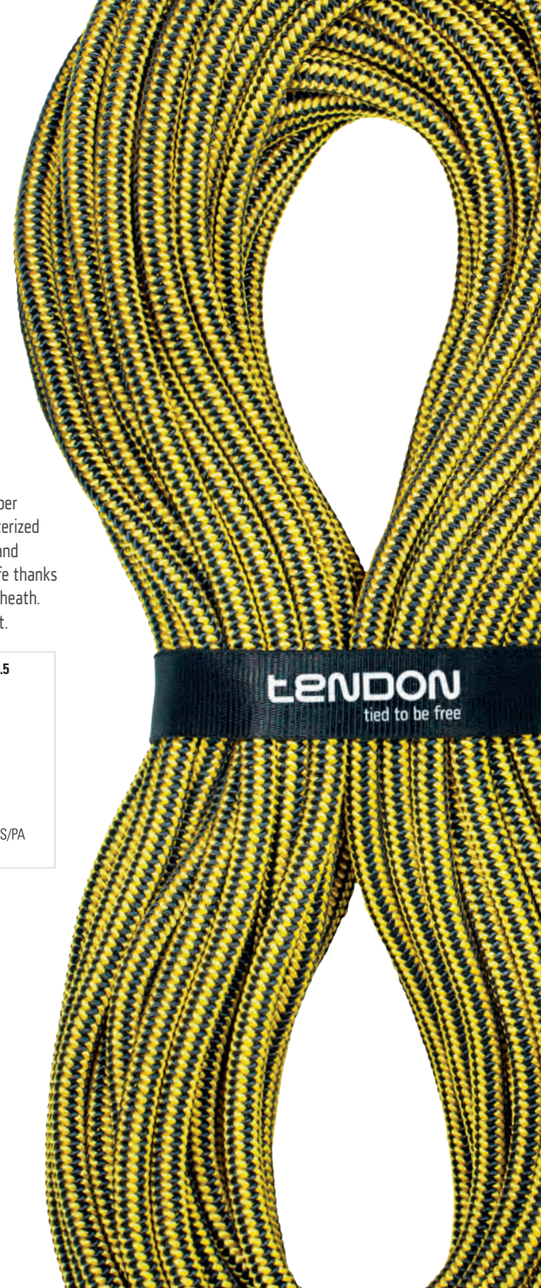
TIMBER EVO _11.5

EN 1891 / CE 1019

The improved version of the Timber EVO 11.5 working rope is characterized by a better abrasion resistance and consequently a longer service life thanks to the new construction of the sheath. Spliced loop available on request.

Diameter • [mm]	11.5
Weight • [g/m]	90
Number of falls (min.)	20
Relative mass of sheath • [%]	54
Sheath slippage • [mm]	10
Elongation (50 – 150 kg) • [%]	3
Shrinkage • [%]	1
Tenacity • [kN]	30
Min. tenacity with knots • [kN]	18
Used material	PES/PA
Type	A

L115TE41S000C • YELLOW/BLACK



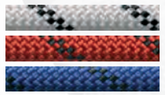
WORSKAI HEIGHTS AND RESCUE

STATIC _9.0 – 13.0

EN 1891 / CE 1019

Sewn termination is available on some types - on request.

	9	10	10.5	11	12	13
Diameter • [mm]	9	10	10.5	11	12	13
Weight • [g/m]	50	69	72	80	92	109
Number of falls (min.)	20	20	20	20	20	20
Relative mass of sheath • [%]	49	39	36	40	35	46
Sheath slippage • [mm]	2	4	3	5	4	0
Elongation (50 – 150 kg) • [%]	3.8	3.4	3.4	3.3	3.2	3.3
Shrinkage • [%]	2.1	2	1.9	1.9	1.8	1.8
Tenacity • [kN]	23	31	32	33	42	42
Min. tenacity with knots • [kN]	13	17	18	20	25	27
Used material	PA	PA	PA	PA	PA	PA
Type	B	A	A	A	A	A



L100TS41S000C • WHITE
L090TS42S000C • RED
L105TS43S000C • BLUE

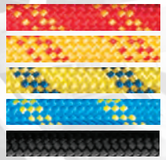
SECURE _10.5 / SECURE _11

EN 1891 / CE 1019

A rope for any application where the sheath and the core may suffer damage. When using this rope you will significantly increase your safety margins, in cases where mechanical damage to the rope due to sharp edges or falling objects. Thanks to the unique sandwich-type construction of braided layers and the use of specially developed staple fibers, the rope is able to hold the suspended person or load even in the event of considerable sheath or core damage. Even if the rope is heavily damaged, the suspended person has enough time to abseil to the ground or to a safe anchor point.

Protected by utility model.
Sewn termination is available on request.

	10.5	11
Diameter • [mm]	10.5	11
Weight • [g/m]	75	84.6
Number of UIAA falls	min. 17	min. 20
Relative mass of sheath • [%]	48.5	33.1
Sheath slippage • [mm]	0	0
Elongation (50 – 150 kg) • [%]	4.6	4.5
Shrinkage • [%]	1.2	0.8
Min. tenacity with knots • [kN]	18	19.8
Tenacity • [kN]	28	35
Max. impact force	4.5	4.3



L105TE41S000C • RED
L105TE42S000C • YELLOW/RED
L110TE43S000C • YELLOW/BLUE
L110TE44S000C • BLUE
L110TE57S000C • BLACK

STATIC NFPA _10.5 – 12.0

EN 1891 / CE 1019 / NFPA 1983 2012 EDITION

The excellent ropes with low elongation and high static strength are intended primarily for work at hight and for securing people above vertical drops. Recommended use are rescue operations, work positioning and military and police use. Occasional use for NFPA certificated ropes meet the life safety rope requirements of NFPA 1983 Standard on fire service life safety rope and equipement for emergency services, 2012 edition.

EN 1891			
Diameter	**12**	**11**	**10.5**
Weight	87	83	72
Number of falls (min.)	20	20	20
Relative mass of sheath	35	33	36
Sheath slippage	4	0	3
Elongation (50 – 150 kg)	3.2	3.5	3.4
Shrinkage	1.8	4.5	1.9
Tenacity	42	42	32
Min. tenacity with knots	25	15	18
Used material	PA	PA	PA
Type	A	A	A

NFPA			
Diameter	**12**	**11**	**10.5**
Diameter	0.472	0.433	0.413
MBS*	42	40.5	29
MBS*	9 442	9 105	6519
Weight	87	83	72
Elongation at 10% MBS	6.1	7.6	7
Elongation at 1.35 kN (300 lbf)	1.9	3.3	4.1
Elongation at 2.70 kN (600 lbf)	3.8	5.6	6.4
Elongation at 4.40 kN (1000 lbf)	6.3	8.3	9.5
NFPA 1983 2012 edition	Yes	Yes	Yes
Classified	General use		Technical use

L105NS41S000C • WHITE

L110NS41S000C • WHITE

L120NS41S000C • WHITE

L105NS41S000C • WHITE

L110NS41S000C • WHITE

L120NS41S000C • WHITE

STATIC _9 TYPE A

EN 1891 / CE 1019

Thanks to the unique construction and the state-of-the-art technological finishing, the static rope offers a strength higher than 22 kN with a falling mass of 100 kg (in comparison with the standard falling mass of 80 kg for type B ropes). The strength of the rope with knots exceeds 15 kN for a period of 3 minutes without any damage to the core and the sheath (type B ropes are tested for 12 kN for a period of 3 minutes). This is an advantage which workers working at heights and rescue teams are eager for, because having a stronger rope in critical situations with full outfit and gear brings them to a higher standard.

Diameter	**9**
Weight	61
Number of falls (min.)	8
Relative mass of sheath	41
Sheath slippage	0
Elongation (50 – 150 kg)	2.8
Shrinkage	1.9
Tenacity	30
Min. tenacity with knots	15
Used material	PA
Type	A
NFPA 1983 2012 edition	No

L090TS41A000C • WHITE

MILITARY

FAST ROPE

ROPE FOR RAPID DEPLOYMENT FROM HELICOPTERS FAST ROPE AND VERSION FOR TRANSPORTATION AND EVACUATION F.R.I.E.S.

In the production of the unique Fast Rope, special PA BCF fibres are used which give superior protection during descending, having high resistance to wear and rupture. The rope with a diameter of 44 mm and a unique construction offers the user good control during descending without additional belay. We are able to supply our key military clients in many countries with Fast Ropes also in diameters 40 mm and 32 mm.

- spliced eye with high strength and resistance, for frequent straining and loading (e.g. in practising).
- eye made of express slings (ST-short termination) - lightweight and especially short eye with high strength. Easy examination of seams and express slings after removal of the protector. In emergency the rope may be simply cut at the termination.
- eye with metal termination (MT-metal termination) for different types of metal connectors and hooks.

Rope diameter, pre-tensioned according to EN ISO 2307 (245 kg)	44	40	32	mm
Rope diameter, loose (zero tension)	50	46	38	mm
Rope weight, pre-tensioned according to EN 2307 (245 kg)	77	60	42	kg/100 m
Rope weight, loose (zero tension)	96	75	52	kg/100 m
Minimum rope strength with spliced eye	12 000	10 000	7 500	kg
Minimum rope strength with sewn loop with textile protection	6 000	6 000	6 000	kg
Minimum rope strength with steel termination	3 000	3 000	-	kg
Minimum strength of suspension sling (F.R.I.E.S.)	2 250	2 250	2 250	kg
Rope elongation, pre-tensioned according to EN ISO 2307 (245 kg)	25	25	25	%

A) FAST ROPE USED FOR RAPID DEPLOYMENT FROM HELICOPTERS

B) ROPE F.R.I.E.S. FOR TRANSPORTATION AND EVACUATION PERSONNEL

STANDARD TYPE OF TERMINATIONS

a) Spliced loop with textile protection

b) Short termination (sewn loop) with textile protection

c) Metal termination

STATIC MILITARY _9 – 12

EN 1891 / CE 1019

Excellent ropes with low elongation and high static strength are designed for army and police.

Sewn termination is available on some types - on request.

	9	10	10.5	11	12
Diameter • [mm]					
Weight • [g/m]	50	69	72	80	92
Number of falls (min.)	20	20	20	20	20
Relative mass of sheath • [%]	49	39	36	40	35
Sheath slippage • [mm]	2	4	3	5	4
Elongation (50 – 150 kg) • [%]	3.8	3.4	3.4	3.3	3.2
Shrinkage • [%]	2.1	2	1.9	1.9	1.8
Tenacity • [kN]	23	31	32	33	42
Min. tenacity with knots • [kN]	13	17	18	20	25
Used material	PA	PA	PA	PA	PA
Type	B	A	A	A	A

L100TS44S000C • BLACK
L100TS45S000C • GREEN
L100TS46S000C • CAMOUFLAGE
L100TS4KS000C • DESERT STORM
L100TS47S000C • SOLID BLACK

STATIC ARAMID _10 / STATIC ARAMID _11

EN 1891 / CE 1019

A unique rope with aramid sheath and polyamide core, which features high firmness and increased resistance to cutting and abrasion. The rope is resistant to naked flame and radiant heat of up to 400 °C for short periods of time! This characteristic will be appreciated in particular by special police and army emergency squads for quick descent from a helicopter, when ordinary ropes are not able to tackle the heat energy.

	10*	11
Diameter • [mm]		
Weight • [g/m]	66.4	80
Number of falls (min.)	10	18
Relative mass of sheath • [%]	50	47
Sheath slippage • [mm]	0	1
Elongation (50 – 150 kg) • [%]	0	3
Shrinkage • [%]	1.5	0.9
Tenacity • [kN]	37	45
Min. tenacity with knots • [kN]	15	15
Used material	Aramid/PA	Aramid/PA
Type	*	A / EN 1891

* tested according to EN 1891 except impact force

L100TA42S000C • BLACK
L110TA41S000C • BLACK

STATIC FORCE _10 / STATIC FORCE _11

EN 1891*/** / CE 1019

A special rope which makes use of a technology of combination of materials and the rope construction itself. There is internal sheath made of stainless steel wires in the rope. The product for use in extremely severe conditions (for instance rescuers, firemen, policemen and other special forces) due to its increased resistance to cutting.

	10*	11**
Diameter • [mm]		
Weight • [g/m]	68	82
Number of falls (min.)	5	5
Relative mass of sheath • [%]	40	41
Sheath slippage • [mm]	0	5
Elongation (50 – 150 kg) • [%]	2	3.4
Shrinkage • [%]	2	1.8
Tenacity • [kN]	24	26
Min. tenacity with knots • [kN]	13	15
Used material	PA/Steel	PA/Steel
Type	*	**

* tested according to EN 1891 type B excepted material, marking and falls
** tested according to EN 1891 type A excepted material, marking and falls

L100TF41S000C • BLACK
L110TF41S000C • BLACK

STATIC REFLECTIVE _11

EN 1891 / CE 1019

The newly developed rope with reflection control weaving reflects a beam of direct light, making it easier to identify the rope in the dark and in poor lighting conditions. The rope is particularly useful for rescue work, speleology, diving and as a tracing rope for mines.

Sewn termination is available on request.

	11
Diameter • [mm]	
Weight • [g/m]	80
Number of falls (min.)	20
Relative mass of sheath • [%]	40
Sheath slippage • [mm]	5
Elongation (50 – 150 kg) • [%]	3.3
Shrinkage • [%]	1.9
Tenacity • [kN]	33
Min. tenacity with knots • [kN]	20
Used material	PA
Type	A

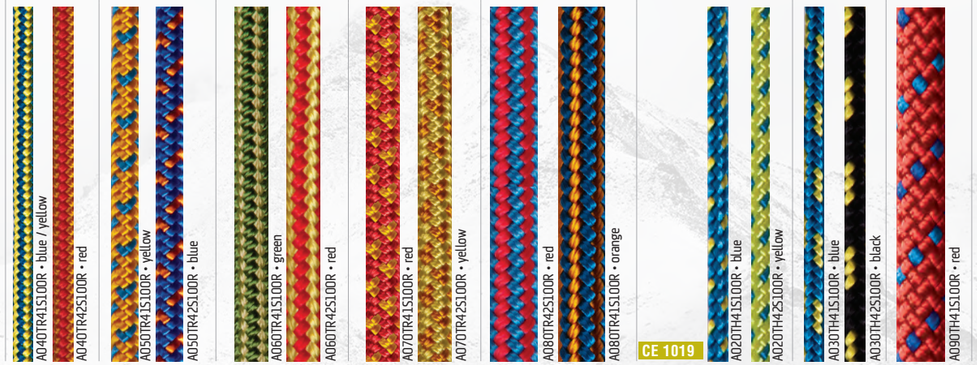
L110TS49S000C • BLACK

ACCESSORIES

ACCESSORIES

ACCESSORY AND POWER CORDS

Cord diameter • [mm]	4	5	6	7	8	2	3	9
Weight • [g/m]	12.7	18.9	23.2	34	39.8	2.8	6.5	54.4
Min. strength • [daN]	340	510	1000	1300	1640	120	190	1900



EN 564 / CE 1019

CE 1019

ARAMID REEP

EN 564 / CE 1019

Aramid accessory cord has an extremely high strength in spite of having the same weight as a standard PA accessory cord. You will appreciate also its low elongation and maintenance of high strength even with damaged sheath thanks to the braided core made of 100% aramid.

	CE	UIAA
Touch	+	+
Reflective	+	+
Aramid	+	+

Cord diameter • [mm]	REEP ARAMID 6	REEP REFLECTIVE 6	REEP TOUCH 6
Weight • [g/m]	22.9	23.2	23.2
Min. strength • [daN]	1700	1000	1000

DUCK

EN 576

Weight 70 g

X888

Duck - a new rope clamp/positioner made by Kong, designed for ropes with diameters between 8 and 13 mm. The first and only device that may be used also with 10 to 15 mm wide flat and tubular slings. Due to its small dimensions, it is possible to use Duck with one hand only, the large diameter enables the karabiner to rotate. Intended for ascending activities, daisy chain positioning, self-belaying.

ASCENDERS AND DESCENDER

	ASCENDERS TENDON 13	ASCENDERS TENDON 14	ASCENDERS TENDON 15	FIGURE 8 DESCENDER TENDON 09
Weight	160 g	225 g	225 g	110 g
	EN 567	EN 567	EN 567	-

CARABINERS

Carabiners	TENDON 02	TENDON 01	TENDON 17	TENDON 18	TENDON 19	TENDON 20	TENDON 16	TENDON 03	TENDON 04
Major axis strength (kN)	30	22	23	23	23	21	27	27	27
Minor axis strength (kN)	10	8	10	10	9	8	10	10	10
Open gate strength (kN)	10	6	9	9	10	7	9	9	9
Weight (g)	70	90	55	55	39	31	60	56	55
EN	12275, 362 B	12275, 362 B	12275	12275	12275	12275	12275, 362 B	12275	12275

HELMETS ORBIX

CE (EN 12492)

- low weight: 240 g
- ergonomic and padded interior
- ventilation with 17 vents
- 3 Headlamp clips
- size: UNI 54/62 cm, new easily and conveniently adjustable system
- fully adjustable chinstrap
- material: external shell polycarbonate, internal shell from EPS

XT-ORBIXGREEN XT-ORBIXWHITE XT-ORBIXRED

TUBULAR TAPE

A tubular tape for different applications, such as connection of a chest harness and a sit harness. Different widths, strengths and colours are available.

Width	Tenacity
19 mm	15 kN
25 mm	20 kN

QUICKDRAW AND SEWN SLINGS

EN 566 / CE 1019

	PA					
Length (cm)	**10**	**15**	**20**	**60**	**120**	**180**
Width (mm)	19	19	19	19	19	19
Min. tenacity (kN)	22	22	22	22	22	22

	DYNEEMA®					
Length (cm)	**10**	**15**	**20**	**60**	**120**	**180**
Width (mm)	13	13	13	13	13	13
Min. tenacity (kN)	22	22	22	22	22	22

DYNAPROT 10

CE 1019

DynaProt 10, the dynamic sling, is made of a dynamic rope and is therefore capable of absorbing the energy of a dynamic fall and to dampen this fall thanks to its elongation. DynaProt 10 has been tested with fall factors 1 and 2. It is able to arrest nine falls with a fall factor of 2. Even with a fall factor of 2, the impact force is lower than the maximum force permitted by EN 892.

	FALL FACTOR 1		FALL FACTOR 2	
Static tenacity (kN)	Impact force (kN)	Number of falls	Impact force (kN)	Number of falls
22	7.4	min. 20	10.7	9

WHY A DYNAMIC SLING?
Standard static tape slings are sized for static loads only = they are not capable of arresting a fall at the level of or above the belaying point. Such a fall loads the belaying point and the climber's body with a high impact force which can lead to a bodily injury or cause the belaying point to be torn out.

In case of slings made of DYNEEMA® this force is even higher and the sling can break even during the first fall.

DynaProt 10 clasic:
length 45 cm – **DP100C045**
length 60 cm – **DP100C060**
length 75 cm – **DP100C075**

DynaProt 10 Y:
length 75 cm – **DP100Y000**

DynaProt 10 Y short:
length 45 cm and length 75 cm – **DP100YS000**

ULTIMO

EN 12277 / CE 1019

The Ultimo is an extremely lightweight and ideally sized harness with comfortable leg loops, suitable mainly but not exclusively for sport climbing. Made with low weight and comfort in mind, ensuring that the Ultimo will be appreciated in climbing contests and extreme route climbing.

	Waist (cm)		Leg loops (cm)	
Size	min.	max.	min.	max.
XS	65	75	49	49
S	70	80	52	52
M	75	85	55	55
L	80	90	58	58
XL	85	95	60	60
Weight (g)		352		

XT-ULTIMO-XS
XT-ULTIMO-S
XT-ULTIMO-M
XT-ULTIMO-L
XT-ULTIMO-XL

STORM

EN 12277 / CE 1019

The Storm is a comfortable harness with reinforced attachment points and a differently coloured belaying eye. The leg loop diameter of the Storm can be adjusted to ensure comfort. The Storm has been designed especially for sport climbing.

	Waist (cm)		Leg loops (cm)	
Size	min.	max.	min.	max.
XS	65	75	50	55
S	70	80	50	55
M	75	85	55	60
L	80	90	55	60
XL	85	95	65	70
XXL	90	100	65	70
Weight (g)		429		

XT-STORM-XS
XT-STORM-S
XT-STORM-M
XT-STORM-L
XT-STORM-XL
XT-STORM-XXL

TALUNG

EN 12277 / CE 1019

This multi-purpose harness is intended especially for mountain,big wall climbing and a full day at the crag. It features excellent adjustability via four stainless steel buckles. This should ensure the Talung gives Maximum comfort during long and strenuous ascents.

	Waist (cm)		Leg loops (cm)	
Size	min.	max.	min.	max.
S	65	80	50	55
M - L	75	90	60	65
XL	85	100	65	70
Weight (g)		465		

XT-TALUNG-S
XT-TALUNG-M/L
XT-TALUNG-XL

COMP

EN 12277 / CE 1019

Harness for via ferratas and for beginners. With reinforced leg loops and attachment points, with one loop for material attachment. It optimizes the position of the body when hanging on the rope or after a fall. It prevents the body from taking the upside down position.

	Waist (cm)		Leg loops (cm)	
Size	min.	max.	min.	max.
One size	65	120	42	66
Weight (g)		505		

XT-COMP

JAMMY

EN 12277 / CE 1019

Very lightweight uncushioned harness designed especially for via ferratas, mountains and glaciers. Available in one universal size for all figures, with reinforced attachment point, colour-differentiated belay loop for safe fastening and one loop for material attachment. The right choice also for artificial climbing walls, climbing schools and skialpinism.

	Waist (cm)		Leg loops (cm)	
Size	min.	max.	min.	max.
One size	60	120	42	66
Weight (g)		370		

XT-JAMMY

SCOUT

EN 12277 / CE 1019

Chest harness SCOUT must be used in combination with a sit harness. It has two buckles for adjustment purposes and the height of attachment may be selected according to its position.

Size	Girth of chest (cm)
One size	75 -110
Weight (g)	240

CAUTION

DO NOT USE THE CHEST HARNESS SEPARATELY!

XT-SCOUT

CANYON SIT

EN 12277 / CE 1019

A simple, uncushioned harness for canyoning, based on the design of the popular sport harness Jammy. It is made of a strong material which is resistant to the water environment. With its removable neoprene protector, ergonomic design and reinforced attachment points, this harness is an ideal part of your gear for canyons.

	Waist (cm)		Leg loops (cm)	
Size	min.	max.	min.	max.
One size	60	120	42	66
Weight (g)		550		

XT-CANYON

TENDON GEAR BAG

Backpack with volume of 45 l designed especially for climbers. The zipper, which encircles almost the whole edge enables an easy access into the main chamber, which contain more pockets and hanging loops for your gear. Upper part of the backpack contains a handy pocket for a guidebook or other small pieces of equipment. The back system includes removeable mat for sitting. The anatomically shaped shoulder straps, adjustable sternum strap, hip belt, and padded back ensure that the backpack fits comfortable on your back even during a long approach. If you completely fill the main chamber, you can always fasten your rope to the top of the backpack using tightening straps. The backpack includes a rope tarp.

- Top material: robust polyester 1000D with PU coating and water-resistant treatment
- Volume 45 l
- Adjustable sternum strap and hip belt
- Padded back
- Includes coated rope tarp
- The rope can be fastened on tope of the backpack using tightening straps

MIDPOINT OF ROPE

The rope is distinctly marked in the midpoint of its length with an ink which does not affect its structure and its mechanical properties. In case of new ropes, the flexibility in the area of marking may be slightly stiff but this phenomenon disappears during the first use of the rope.

The midpoint mark:

- clearly identifies the rope midpoint during abseiling and guarantees that both rope ends have the same length,
- assists in quickly finding the rope midpoint and the climber knows when abseiling,
- that both rope ends hanging down have the same length without measuring,
- in sport climbing, informs the belayer that the climber is higher that a half of the rope and his/her descending or abseiling may be difficult,
- in the mountains, informs the belayer that a half of the rope (still or just) remains,
- assists in coiling the rope "from the midpoint".

If there is no midpoint mark on your rope or the mark is poorly visible, use the Tendon Rope Marker for making permanent black marks.

XROPEMARKER

CAUTION YOU SHOULD ALWAYS KNOW WHERE THE MIDPOINT OF YOUR ROPE IS, ESPECIALLY IF THE ROPE HAS BEEN SHORTENED.

END MARKING OF ROPES

End marking of ropes by Tendon Thermotransfer is relatively permanent, does not come off and doesn't cause formation of rope end widenings that could get caught when pulling down the rope after abseiling.

ROPE IDENTIFICATION AND MARKING

STATIC ROPE
There is an identification tape (two tapes in case of NFPA certified ropes) inside the rope which contains the following information: rope manufacturer, standard, rope type, material used, year of manufacture.

DYNAMIC ROPE
Inside a dynamic rope there is a colour marker thread (one or more) identifying the calendar year of manufacture of the rope (e.g. 2014 red/black, 2015 green).

More information on www.mytendon.com or in Using instruction.

ROPE TERMINATION

A perfect rope termination is done by the COMPACT technology - the core of the last 15 mm of the rope is joined to the sheath by means of ultrasound to form a compact end. This technology is currently considered to be the best method of rope termination.

ROPE MADE TO MEASURE

We can make a rope in a length as required by you. Thanks to this possibility there is no need for you to shorten and mark the rope later. Just think economically and effectively - you can save time and money and avoid making useless waste.

SEWN AND SPLICED EYE

Certain types of ropes can be delivered with a sewn or spliced eye on request. Sewn and spliced eyes are always in conformity with relevant standards.

CAUTION BEAR IN MIND THAT THE STRENGTH OF EYES IS USUALLY LOWER THAN THE STRENGTH OF THE ROPE.

ROPE CUTTER + CUTTING BLADE

Rope shortening device

CUTTING BLADE TYPE R • XCEPEL-R
HEAT CUTTER HSG • XPAJKA-HSG0

ROPE PROTECTOR

Rope protector against rubbing when the rope runs over an edge.
A resistant sleeve made of PVC with easy closing by a Velcro fastener.

LENGTH 60 CM • XPROTECTOR60
LENGTH 100 CM • XPROTECTOR100

TENDON ROPE CLEANER

Do not use any detergent for cleaning and washing of ropes. Tendon Rope Cleaner is a highly effective detergent for safe and thorough washing of ropes in washing machines as well as by hand. It does not damage the rope in any way and in addition the rope is ageing more slowly and is easier to use after washing and proper drying.

NOTICE IF YOU BUY A NEW STATIC ROPE AND A SITUATION OCCURS THAT YOU HAVE TO USE IT IN A WET ENVIRONMENT, WE RECOMMEND YOU TO WASH THE NEW ROPE BEFORE THE FIRST USE. THIS WAY YOU WILL REMOVE GREASY ADDITIVES (USED DURING PRODUCTION OF PA FIBRE) THAT WOULD GET RELEASED FROM THE ROPE ON THE FIRST CONTACT WITH MOISTURE.

XPRACIGEL01

We bring a new, revolutionary conception of the overall administration and registration of ropes which, thanks to NFC technology, offers amazing possibilities and brings user comfort to a new level. With a PC and a mobile phone you obtain a quick, effective and smart tool for examination and maintenance of your ropes.

OUR ROPES WILL COMMUNICATE WITH YOU

INNOVATIVE AND MOBILE ACCESS TO IDENTIFICATION, MARKING AND REGISTRATION OF STATIC AND DYNAMIC ROPES.

More information on www.mytendon.com

STORAGE LIFE AND LIFE SPAN OF DYNAMIC ROPES

STORAGE LIFE

THE MAXIMUM STORAGE LIFE IN UNUSED CONDITION WITHOUT LIMITATION TO LIFE SPAN MAKES UP TO 5 YEARS.

This is conditional on optimum storage conditions: clean place protected against light, without chemical, physical and mechanical effects, in a normal climate of 15 - 25 °C and a relative humidily of about 65 %. An examination of the rope by a competent person (person authorized by the manufacturer) once every six months is mandatory.

In the process of rope production, the fibres are mechanically doubled, twisted and braided in several stages. In this way the fibres finally attain a condition of mechanically induced stress. A long-term storage leads to retardation and relaxation. This means that stress in macromolecules is "relieving". This phenomenon is not harmful, on the contrary it is connected with an improvement of dynamic properties. Research works showed that the results of tests of dynamic performance of ropes that had been (optimally) stored for several years were often better than values measured immediately after production. Polyamide also does not contain additives and softeners like, for example, PVC that could diffuse out. This is the reason why no embrittlement occurs.

In addition, the in-the-meantime standardized finishing of fibres by nanotechnological treatment offers an additional protection.
In case of present-time advanced materials, a considerable negative change of properties of the product in a time interval of 5 years can be excluded provided that optimum storage conditions are maintained.

Safety investigations performed by mountaineering associations in the past showed that some used and duly stored ropes made early in the sixties (!) still had a residual capacity of two standard falls!

LIFE SPAN

AGEING OF DYNAMIC ROPES IN USE

Due to different influences on use and specialities of use it is impossible to give an exact numerical value, only a roughly estimated time value can be specified.

Depending on frequency and intensity of use, external effects as abrasion, contamination, mechanical loading (static), rope work (lowering and/or abseiling), loading by falls (dynamic), intensive action of UV radiation, aggressive climatic conditions etc. lead to reduction of safety reserve of the dynamic rope.

- The consequences of abseiling and lowering are reduction of dynamic performance and reduction of safety reserve of the rope.
- Abrasion leads to gradual weakening of consistency of the sheath. Heavier abrasion makes the sheath "hairier" and reduces the loadability of the sheath and its protective effect on the rope core.
- Particles of impurities and rocks inside the rope, especially in combination with heavy performance of the rope, result in abrasion of fine fibres of the core and the sheath. The particles act as abrasive sand and lead to reduction of the load-bearing cross section of the fibres, especially during frequent abseiling/lowering.
- Dynamic load results in loss of rope performance - the ability of arresting dynamic (impact) energy decreases. This depends on the hardness of the fall considerably (hardness of the fall is given by the belay method and the fall factor; falls with a fall factor of > 1 are classified as hard falls according to the general state of the art).

Safety investigations performed by mountaineering associations reveal that if the rope sheath is not excessively damaged and shows no signs of heavy abrasion, a loading by falls with a fall factor of < 0.5 and correct dynamic belaying does not represent a safety risk provided that the rope is not resting on sharp edges.

INVESTIGATIONS BY THE SAFETY COMMISSION OF THE GERMAN ALPINE CLUB

Investigations performed by the Safety Commission of the German Alpine Club in the nineties revealed that there was a hyperbolic relation between the loss in safety reserve and the rope performance. There is also a linear relation between the rope quality and the loss in safety reserve.

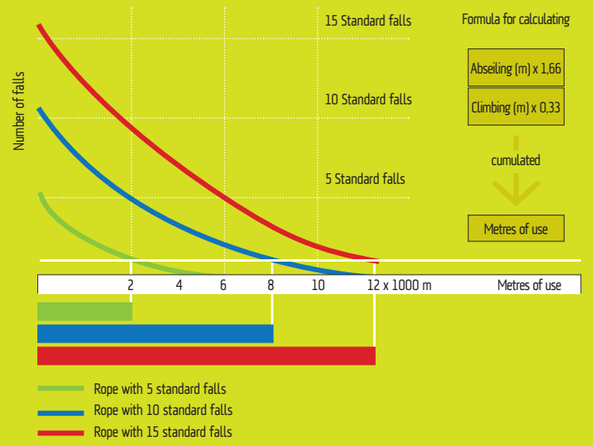
The higher the safety reserve (number of falls) of the rope, the longer the life span of the rope, because the loss starts from the higher initial level.
In practical use of mountaineering ropes, two factors of rope work with different effects on the rope may be defined essentially:

- The rope is drawn by dead weight and friction only (metres of climbing). The leader climbs up and draws the rope behind to the next belay station, the rope is drawn from above or by change of rope direction without being loaded by the weight of the climber. The influencing factors are only the surface of the ground and friction when drawing the rope, as well as ambient conditions (UV radiation, moisture, impurities etc.).
  The general load is very low.

- The rope is used for lowering and abseiling (metres of abseiling)
  When using the rope for lowering with bending, a high performance induced by friction and movement is generated both in the belay/braking system (HMS, descender or belay device) and in the place of bending in the sheath and the core and is often connected with twisting which is brought about by the frequently-occuring false twist effect.
  The general load is much higher than in the aforementioned case!

The user may use the following simple equation for making an approximate calculation:
metres of climbing x 0.33 + metres of abseiling x 1.66 = metres of use

When documenting the metres of use cumulatively, the user may estimate the safety condition of the rope (safety reserve of the number of falls) from the number of metres of use of the rope since the first day of use.



GENERAL VALUES OF SAFETY CONDITION (SAFETY RESERVE)

According to curves depicted in the graph for individual rope types:

TENDON 11.4 mm Trust	20 standard falls on the day of production
TENDON 11.0 mm Trust	16 standard falls on the day of production
TENDON 10.5 mm Ambition	11 standard falls on the day of production

The number of cumulated metres may be used to estimate the remaining safety condition/safety reserve (number of standard falls) of the rope.

Estimated safety condition of ropes used with different intensity (TENDON 11 mm Trust):

- **Safety condition >/= 5 standard falls (up to approx. 6,000-8,000 metres of use)**
  If the rope is in perfect condition, it may be used to secure any climbing situation up to a fall factor of 2.

- **Safety condition > 2 standard falls (up to approx. 12,000-14,000 metres of use)**
  If the rope is in perfect condition, it may be used to secure any climbing situation up to a fall factor of 1.

- **Safety condition </= 2 standard falls**
  If the rope is in perfect condition, it may be used to secure any climbing situation up to a fall factor of 0.3, if the rope sheath shows no signs of damage or extreme hairiness.

It is not easy to specify an exactly defined life span.

The following information can be used as a guide:

- occasional use (e.g., five times a year, training use) with no heavy performance of the rope (no abseiling), without loading by hard falls, with the rope being correctly used and loaded by not more than 600-800 metres of use = the rope may be used safely for 10 years maximum.

Extreme loading by falls or other strong mechanical, physical, climatic or chemical effects can damage the rope so heavily that it must be discarded immediately.

The rope must be discarded immediately also in case the user has the slightest doubt about the safety and the perfect condition of the rope.

STORAGE LIFE AND LIFE SPAN OF STATIC ROPES

STORAGE LIFE

THE MAXIMUM STORAGE LIFE IN UNUSED CONDITION WITHOUT LIMITATION TO LIFE SPAN MAKES UP TO 5 YEARS.

This is conditional on optimum storage conditions: clean place protected against light, without chemical, physical and mechanical effects, in a normal climate of 15 – 25 °C and a relative humidily of about 65 %. An examination of the rope by a competent person once every six months is mandatory.

In the process of rope production, the fibres are mechanically doubled, twisted and braided in several stages. In this way the fibres finally attain a condition of mechanically induced stress. A long-term storage leads to retardation and relaxation. This means that stress in macromolecules is "relieving". This phenomenon is not harmful, on the contrary it is connected with an improvement of dynamic properties. Research works showed that the results of tests of dynamic performance of ropes that had been (optimally) stored for several years were often better than values measured immediately after production. Polyamide also does not contain additives and softeners like, for example, PVC that could diffuse out. This is the reason why no embrittlement occurs.

In case of present-time advanced materials, a considerable negative change of properties of the product in a time interval of 5 years can be excluded provided that optimum storage conditions are maintained.

LIFE SPAN

As to ageing of static ropes, it is impossible to give an exact numerical value, only a roughly estimated time value can be specified. This information does not relieve the user of the mandatory examination of the rope by a competent person (person authorized by the manufacturer) after use.

Depending on frequency and intensity of use, external effects as abrasion, contamination, mechanical loading (static), rope work (lowering and/or abseiling) loading by falls (dynamic), intensive action of UV radiation, aggressive climatic conditions etc. lead to reduction of static and dynamic performance (safety reserve) of the static rope.

The crucial influencing factors for safety of static ropes are external effects, as for instance:

- Sharp edges that may have fatal consequences even at a slight tension of the rope!
- Abseiling and lowering (rope work) lead to loss of dynamic and static performance. For instance, frequent abseiling with high load forms clusters of fused (melted) fibres in the rope sheath as a result of the heat inevitably developed by friction.
- Abrasion leads to gradual weakening of consistency of the sheath. Heavier abrasion makes the sheath "hairier".
- Internal wear – particles of impurities and rocks inside the rope, especially in combination with heavy performance of the rope, result in abrasion of fine fibres of the core and the sheath. The particles act as abrasive sand and lead to reduction of the load-bearing cross section of the fibres, especially during frequent abseiling.
- Loading by falls
  Due to the low dynamic elongation, loading by falls with a fall factor of 0.3 or greater must be essentially excluded.

Because, unlike dynamic ropes, the main task of static ropes does not consist in safe arrest of falls but in a quasi-static loading with a minimum dynamic stress only, a macromolecular stretching occurs when the rope is used correctly which, however, has no adverse effects on the maximum tensile force and the elongation of the rope. In case of an alternating to repeated (cyclic) loading of up to 20 % of the maximum tensile strength of the rope with approximately 10,000 loading cycles, a residual force at break of the rope of > 75 % may be expected.

EXAMPLE:

TENDON 11 mm Static

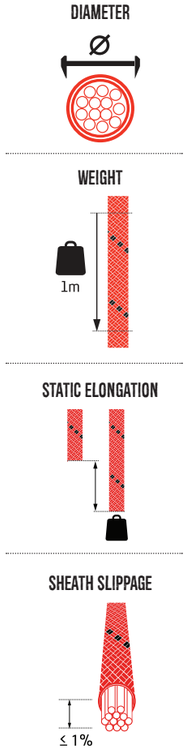
- maximum tensile force: 40.0 kN
- residual force at break – knot: 16.5 kN
- residual force at break after 10,000 cycles of repeated (cyclic) loading of up to 20 % (= 6 kN): 30.0 kN

The above parameters exceed the minimum requirements of EN 1891 for Type A static rope significantly.

OCCASIONAL USE (SEVERAL TIMES A YEAR) WITH AN INTENSITY OF USE UNWORTHY OF NOTICE, WITHOUT CONSIDERABLE MECHANICAL LOADING OR FALL ARREST, WITHOUT RECOGNIZABLE WEAR OR CONTAMINATION.	8 - 10 YEARS
OCCASIONAL USE (SEVERAL TIMES A YEAR) WITH HIGH INTENSITY OF USE, MECHANICAL LOADING (SUSPENSION, OCCASIONAL LOWERING OR ABSEILING), WITHOUT FALL ARREST. SIGNS OF USE: SLIGHT WEAR, SLIGHT CONTAMINATION, NEGLIGIBLE HAIRINESS.	5 - 8 YEARS
FREQUENT USE (SEVERAL TIMES A MONTH) WITH LOW INTENSITY OF USE, WITHOUT CONSIDERABLE MECHANICAL LOADING (SUSPENSION, OCCASIONAL LOWERING OR ABSEILING) OR FALL ARREST. SIGNS OF USE: NO SIGNS OF HEAVY WEAR, SLIGHT CONTAMINATION, HARDLY RECOGNIZABLE HAIRINESS.	
VERY FREQUENT USE (SEVERAL TIMES A WEEK) WITH LOW INTENSITY OF USE, WITHOUT CONSIDERABLE MECHANICAL LOADING OR FALL ARREST. SIGNS OF USE: SIGNS OF HEAVY WEAR, SLIGHT CONTAMINATION, RECOGNIZABLE HAIRINESS.	3 - 5 YEARS
VERY FREQUENT USE (SEVERAL TIMES A WEEK) WITH HIGH INTENSITY OF USE, MECHANICAL LOADING (SUSPENSION), BUT WITHOUT FALL ARREST. SIGNS OF USE: SIGNS OF WEAR, OBVIOUS HAIRINESS, SLIGHT VITRIFICATION.	
INTENSIVE USE (EVERY DAY) WITH NORMAL INTENSITY OF USE, WITHOUT CONSIDERABLE MECHANICAL LOADING OR FALL ARREST. SIGNS OF USE: OBVIOUS WEAR, OBVIOUS HAIRINESS, HEAVY CONTAMINATION.	1 - 3 YEARS
INTENSIVE USE (EVERY DAY) WITH HIGH INTENSITY OF USE, MECHANICAL LOADING (SUSPENSION), BUT WITHOUT FALL ARREST. SIGNS OF USE: HEAVY WEAR, VITRIFICATION, CONTAMINATION AND HAIRINESS.	</=1 YEAR

EXTREME LOADING BY FALLS OR OTHER STRONG MECHANICAL, PHYSICAL, CLIMATIC OR CHEMICAL EFFECTS CAN DAMAGE THE ROPE SO HEAVILY THAT IT MUST BE DISCARDED IMMEDIATELY. THE ROPE MUST BE DISCARDED IMMEDIATELY ALSO IN CASE THE USER HAS THE SLIGHTEST DOUBT ABOUT THE SAFETY AND THE PERFECT CONDITION OF THE ROPE.

TESTING OF CLIMBING ROPES IN ACCORDANCE WITH EN 892



DIAMETER

This parameter is measured with a 10 kg load for single ropes, 6 kg for half ropes and 5 kg for twin ropes. This would imply that testing the exact diameter of ropes under domestic conditions is quite difficult.

WEIGHT

The mass of a rope is measured for a length of one meter. A single rope without any added finish weights 52 to 88 grams per meter, a half rope about 50 grams and twin rope approximately 42 grams per meter. The rope's core must account for at least 50 % of its total mass.

STATIC ELONGATION

Usable static elongation is tested by applying an 80 kg load to the rope. Elongation may not exceed 10 % for single ropes (one strand) and twin ropes (two strands tested in tandem) and 12 % for half ropes (one strand).

SHEATH SLIPPAGE

Using a special machine, this test determines how much the surface of a rope will slip relative to the core when subjected to a load. The EN 892 establishes that slippage may not exceed 1 % (20 mm) when stretching a length of rope measuring 2250 (+ – 10 mm). If the sheath slides over the core during actual climbing, it can lead to bulges and so-called stockings. If the ends of ropes have not been sealed properly, the core at the end of the rope can come loose from the sheath or the sheath may extend longer than the core.

The ends of our ropes are sealed with ultrasound into one indivisible whole and if the limits for slippage are complied with, the situation described above will not occur.

NUMBER OF STANDARD FALLS

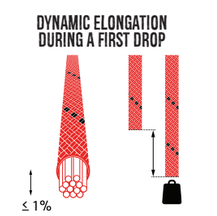
This gives the number of falls the rope being tested under conditions given by the EN 892. This standard requires a minimum of 5 falls with a load of 80 kilograms for single ropes. Half ropes are tested with a 55 kg load. For twin ropes, the two ropes are under a constant load of 80 kilograms and the minimum number of falls is 12. The number of falls withstood during testing is a direct measurement of a rope's margin of safety (strength). In practice, no new rope will break under a sudden load if the rope is in good condition and has been properly handled. A rope will gradually become less safe as its material ages and as it becomes worn from use, as these factors reduce its strength. Moisture can also reduce a rope's strength by degrading the polyamide fibers used for making the rope.

MAXIMUM IMPACT FORCE

Impact force is the force that occurs during a first fall under defined conditions (mass of the load, fall factor, etc.) and that is absorbed by the rope. Under testing, the impact force increases for each additional test fall the rope is subjected to. How fast the impact force increases determines the number of standard falls withstood. The higher the number of standard falls, the longer the service life of the rope for the user. The practical use of ropes in real climbing or on training walls is different from laboratory conditions. During standard rope tests, the end of the rope is firmly secured, but in real climbing, belaying equipment and systems allow for some slippage of the rope, breaking the fall dynamically. Dynamic belaying dissipates some of the fall's energy, thereby lowering the impact force. For that reason, it is important to know how to use appropriate dynamic belaying.

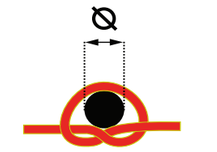
DYNAMIC ELONGATION DURING A FIRST DROP

This parameter measures the elongation of the rope during the first standard drop. The maximum allowable dynamic elongation is 40 %. This measurement is a better indicator of the rope's properties than the static elongation value.



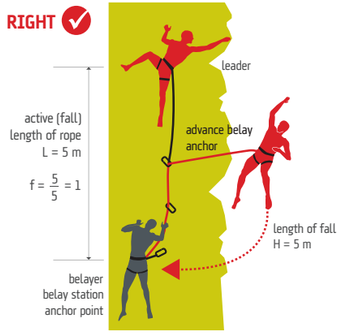
KNOTABILITY

One of the most important requirements for mountain climbing rope is outstanding flexibility. How is this measured? A section of the tested rope is tied into a simple knot. Weight is then applied to the rope (10 kg for a single rope). Then the interior diameter of the knot is measured. The ratio between that diameter and the diameter of the rope gives the coefficient of Knotability.

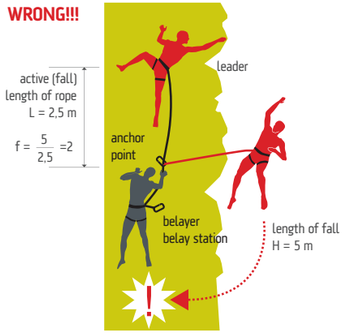


WARNING THE FALL FACTOR IS ALSO OF KEY IMPORTANCE FOR THE AMOUNT OF IMPACT FORCE. HOW FAR YOU FALL IS VIRTUALLY INSIGNIFICANT FOR THE IMPACT FORCE. THE AMOUNT OF THE FALL FACTOR IS MUCH MORE IMPORTANT. A FIVE METER FALL WITH A FALL FACTOR OF F = 1 WILL RESULT IN A MUCH LOWER IMPACT FORCE THAN A FALL OF THE SAME LENGTH WITH A FACTOR OF F = 2. THE ENERGY OF THE CLIMBER'S FALL IS ABSORBED BY THE ACTIVE LENGTH OF THE ROPE (SHOWN IN THE ILLUSTRATIONS IN RED).

RIGHT



WRONG!!!



WARNING A ROPE WITH POOR FLEXIBILITY IS HARDER TO TIE IN KNOTS AND SLIDES LESS EFFICIENTLY THROUGH THE CARABINERS OF A BELAYING SYSTEM. THE EFFECTS OF THE ELEMENTS OR OF IMPROPER CARE CAN REDUCE A ROPE'S FLEXIBILITY.

LANEX has built its own laboratory for testing its TENDON ropes, including its own drop tower. Newly developed ropes to European labs for certification already fully prepared and with known technical parameters. Most TENDON ropes are tested at the accredited TÜV lab in Vienna.

REQUIREMENTS OF THE NORM EN 892 - DYNAMIC CLIMBING ROPES

	REQUIRED VALUES		
MONITORED PARAMETER	SINGLE ROPE	HALF ROPE	TWIN ROPE
Rope diameter	Undefined	Undefined	Undefined
Rope weight	Undefined	Undefined	Undefined
Sheath slippage	1 % (± 20 mm)	1 % (± 20 mm)	1 % (± 20 mm)
Static elongation	max. 10 % *	max. 12 % *	max. 10 % **
Dynamic elongation	max. 40 % +	max. 40 % ***	max. 40 % ++
Impact force of the first fall	max. 12 kN +	max. 8 kN ***	max. 12 kN ++
Number of falls	min. 5 +	min. 5 ***	min. 12 ++

* test of one strand of rope / ** test of two strands of rope / *** test of one strand of rope, load: 55 kg
+ test of one strand of rope, load: 80 kg / ++ test of two strands of rope, load: 80 kg

TESTING OF ACCESSORY CORD

DIAMETER

Accessory cords are tested in a manner similar to testing of ropes, except that the pretensioning is less. According to EN 564, cords should have diameters of 4, 5, 6, 7 and 8 mm. Smaller diameters (2 mm - avalanche cords, 3 mm - hammer cord and 9 mm - force cord) do not comply with the norm.

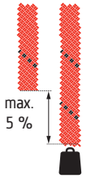
STRENGTH

The minimum strength under to EN 564 is shown on the table below:

diameter (mm)	minimum strength kN
4	3.2
5	5.0
6	7.2
7	9.8
8	12.8

DIAMETER

ELONGATION



TESTING ROPES WITH LOW ELONGATION (STATIC ROPES) IN ACCORDANCE WITH EN 1891

DIAMETER

This quantity is measured with a 10 kg load on the rope. The ropes may have a minimum diameter of 8.5 mm and a maximum of 16 mm.

ELONGATION

Usable static elongation is measured by applying a test load of 150 kg (after 50 kg pretensioning). Elongation may not exceed 5 %.

STATIC STRENGTH

This is always stated on tags on the ropes. It varies according to the diameter of the rope and the kind of Used material. EN 1891 requires that group A ropes have a minimum static strength of 22 kN and that Type B ropes have a minimum static strength of 18 kN.

WARNING THE MAXIMUM RECOMMENDED LOAD IS 1/10 OF THE NOMINAL STRENGTH STATED ON THE PRODUCT LABEL.

REQUIREMENTS WITH RESPECT TO MATERIAL PROPERTIES

According to EN 1981, static ropes must be manufactured from a material that has a melting point higher than 195 °C, so they may not be made using polyethylene and polypropylene. Ropes made for those materials for canyoning are not subject to that norm, although they fulfill the norm with respect to static strength and other parameters.

SHEATH SLIPPAGE

This parameter is important mainly during rappelling on static ropes - if this parameter of a rope is insufficient, a safe descent could be endangered by the bunching of the rope's sheath in front of the rappelling brake.

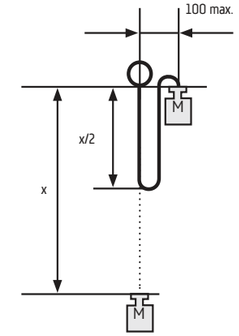
For Type A ropes, slippage may not exceed ca. 20 mm for a 2 m length of rope (this applies to ropes with a diameter of up to 12 mm). For Type B ropes, slippage may not exceed 15 mm.

KNOTABILITY

This is tested in the same way as mountain climbing ropes: it must not be possible to insert a bar with a diameter greater than a multiple of 1.2 times the diameter of the rope into the opening in the knot tightened by the testing force.

DYNAMIC PERFORMANCE

The testing equipment is similar to that used for testing climbing ropes, except that the rope is ca. 2 m long. At the ends it is tied in figure eight knots and it is tested with five falls with a fall factor of 1. During the test, the rope must withstand all five falls. Type A ropes are tested with a load of 100 kg. Type B ropes are tested with a load of 80 kg.



REQUIREMENTS OF THE NORM EN 1891 – STATIC ROPES

	REQUIRED VALUES	
MONITORED PARAMETER	ROPE TYPE A	ROPE TYPE B
Rope diameter	8.5 – 16 mm	8.5 – 16 mm
Knotability coefficient	max. 1.2	max. 1.2
Sheath slippage	max. 20 mm*	max. 15 mm*
Elongation	max. 5 %	max. 5 %
Shrinkage	Undefined	Undefined
Impact force	max. 6kN	max. 6kN
No. of falls with a fall factor of 1	min. 5	min. 5
Strength without knots	min. 22 kN	min. 18 kN
Strength with knots	min. 15 kN (3 minutes)	min. 12 kN (3 minutes)

* 20 mm + 10 for ropes to diameter 12 mm. 20 mm + 5 for ropes with diameter between 12.1 - 16 mm

PICTOGRAMS

SINGLE ROPES
For ascent where only one rope is used. This is the most basic and widely used method of using rope for ascents.

HALF ROPES
Separate ropes are anchored in alternating belaying points. This system reduces the risk of rope breakage by falling rocks and provides maximum protection in alpine conditions or on tough climbs.

TWIN ROPES
The same ropes are always used in pairs, secured at common belaying points. Twin ropes guarantee a high level of safety, especially for classic alpine climbing.

STANDARD
Improved basic finishing of dynamic ropes. The new technological process enables the application of impregnation agents early in the standard finishing of the ropes.

COMPLETE SHIELD
Maximum level of rope protection against water and abrasion. It is reached by using the new progressive NANOTECHNOLOGY method. Tiny particles of TEFLON®Eco are applied to the rope sheath and core and make a film of almost impermeable protective layer. The rope fibres are then protected against dust and water which would otherwise cause a harm to the rope construction. COMPLETE SHIELD is an impregnation which extends the general lifespan of TENDON ropes significantly. All ropes with the Complete Shield finish meet the UIAA 101 requirement for water repellent test.

TeFIX
The TeFIX patented technology permanently bonds the sheath to the core. It prevents from any slippage between these two basic rope parts. This particular feature was reached by adding a special material between core and sheath. This extra material is later also processed so that the bond is flexible and strong. Rope has 0% sheath slippage, much longer lifespan, and better handling.

LOWE
Thanks to the unique combination of materials which work together jointly and meet the stringent requirements of the EN 892 standard, we were able to reduce the weight while retaining a diameter acceptable to all climbers.

SECURE
Rope with a zero sheath slippage is made with utilization of the unique patented technology named Secure. Thanks to the unique sandwich-type construction of braided layers and the use of specially finished fibres, the rope is safe even in case of a heavily damaged sheath.

SBS – SIMPLE BRAID SYSTEM
SBS – is system where each strand is plaited separatelly into the sheath construction and not in pair (tandem). SBS braiding makes the sheath surface much more compact and smoother. Therefore ropes made by SBS generate much lower friction, are more resistant to abrasion and last longer while in contact with rocks.

COMPACT
Our own special technology has been used for the ends of the rope. In a length of 15 mm, the core strand and sheath are connected into one unit.

MIDPOINT OF ROPE
At half of the length, the rope is visibly marked by coloured band, which does not affect the core structure and its mechanical properties. Lengths 30 - 80 m only.

BICOLOUR
A new, clearly identifiable change of rope pattern in the middle. Bicolour brings comfort in rope handling and is advantageous especially for descending. The change of pattern is practical also when climbing with half ropes and contributes to improvement of ropework as well as to safety in general.

CE — SYMBOL OF COMPLIANCE
The CE symbol on a product declares that the product is in compliance with all applicable regulations and has undergone all appropriate compliance evaluation procedures. The number after the CE symbol (e.g. 1019) indicate the notified body which performs checking of production.

UIAA
Products marked with this symbol meet UIAA requirements. The UIAA is the International Mountaineering and Climbing Federation.

TENOTE
New, revolutionary conception of the overall administration and registration of ropes which, thanks to NFC technology, offers unthought-of possibilities and brings user comfort to a hitherto unrecognized level. Rope includes microchip. With a PC and a mobile phone you obtain a quick, effective and smart tool for examination and maintenance of your ropes.

TENDON ELECTRONIC NOTE SYSTEM (TeNOTE)
Rope marking system by means of a microchip.

EN 1891
This European norm establishes safety requirements and testing procedures for static ropes at European Union accredited laboratories. Products labeled with the symbol of this European norm satisfy the given safety requirements.

EN 892
This European norm establishes safety requirements and testing procedures for dynamic climbing ropes at European Union accredited laboratories. Products labelled with the symbol of this European norm satisfy the given safety requirements.

NFPA
These ropes meet the life safety rope requirements of NFPA 1983, standard on fire service life safety rope and equipment for emergency services, 2012 edition.

EXPERT - Climbing is your lifestyle and you always go for the best equipment available. You need aggressive ropes that never fail and support your impressive performance.

ADVANCED - It seems that you are serious about climbing and that you care about the gear you use. The fact that you've already sent quite difficult routes only confirms it. Go for the ropes labeled as Advanced.

BEGINNER - Ropes ideal for your first moves on rock or occasional climbing. Thicker diameters and long lifespan.

CODES AND COLOURS

MASTER 8.6

Rope diameter • [mm]	①	ART. NO. • COLOUR
Weight • [g/m]	8.6	D089TM42C000C • RED
Number of UIAA falls	50	
Max. impact force • [kN]	5	
Sheath slippage • [%]	9.1	
Static elongation • [%]	0.3	
Dynamic elongation • [%]	4.3	
Knotability	30	
	0.9	

MASTER 8.9

Rope diameter • [mm]	①	1/2	∞	ART. NO. • COLOUR
Weight • [g/m]	8.9	8.9	8.9	D089TM41C000C • GREEN
Number of UIAA falls	52	52	52	D089TM42C000C • RED
Max. impact force • [kN]	5	16	29	
Sheath slippage • [%]	8.7	6.1	9.6	
Static elongation • [%]	0	0	0	
Dynamic elongation • [%]	6.9	6.9	6.9	
Knotability	33	30	27	
	0.8	0.8	0.8	

MASTER 9.1

Rope diameter • [mm]	①	1/2	∞	ART. NO. • COLOUR
Weight • [g/m]	9.1	9.1	9.1	D091TM41C000C • RED
Number of UIAA falls	56	56	56	D091TM42C000C • GREEN
Max. impact force • [kN]	5	17	42	
Sheath slippage • [%]	9	6.9	11.1	
Static elongation • [%]	0.3	0.3	0.3	
Dynamic elongation • [%]	6.4	6.4	3.7	
Knotability	29	27	24	
	0.8	0.8	0.8	

MASTER PRO 9.2

Rope diameter • [mm]	①	ART. NO. • COLOUR
Weight • [g/m]	9.2	D092TP41C000C • RED
Number of UIAA falls	58	D092TP43C000C • TURQUOISE
Max. impact force • [kN]	9	
Sheath slippage • [%]	9.1	
Static elongation • [%]	0.3	
Dynamic elongation • [%]	6.1	
Knotability	31	
	1	

MASTER 9.4

Rope diameter • [mm]	①	ART. NO. • COLOUR
Weight • [g/m]	9.4	D094TM41S000C • VIOLET
Number of UIAA falls	58	D094TM42S000C • BLUE
Max. impact force • [kN]	5-7	D094TM44S000C • BRIGHT ORANGE
Sheath slippage • [%]	7	
Static elongation • [%]	0	
Dynamic elongation • [%]	6.2	
Knotability	37	
	0.9	

MASTER 9.7

Rope diameter • [mm]	①	ART. NO. • COLOUR
Weight • [g/m]	9.7	D097TV41S000C • YELLOW
Number of UIAA falls	61	D097TV42S000C • GREEN
Max. impact force • [kN]	7-8	D097TV45S000C • BICOLOUR
Sheath slippage • [%]	7	
Static elongation • [%]	0.1	
Dynamic elongation • [%]	6.3	
Knotability	36	
	0.9	

NEW MASTER 9.7 TEFIX

Rope diameter • [mm]	①	ART. NO. • COLOUR
Weight • [g/m]	9.7	D097MF41S000C • TURQUOISE
Number of UIAA falls	61	D097MF42S000C • PINK
Max. impact force • [kN]	8	
Sheath slippage • [%]	8.2	
Static elongation • [%]	0	
Dynamic elongation • [%]	8.0	
Knotability	35	
	0.8	

MASTER 7

Rope diameter • [mm]	①	ART. NO. • COLOUR
Weight • [g/m]	7	D070TM41C000C • RED
Number of UIAA falls	34	D070TM42C000C • BLUE
Max. impact force • [kN]	14	
Sheath slippage • [%]	8.9	
Static elongation • [%]	0	
Dynamic elongation • [%]	3.6	
Knotability	33	
	0.9	

MASTER 7.8

Rope diameter • [mm]	1/2	∞	ART. NO. • COLOUR
Weight • [g/m]	7.8	7.8	D078TD41S000C • RED/YELLOW
Number of UIAA falls	38	38	D078TD42S000C • BLUE
Max. impact force • [kN]	6	16	D078TD43S000C • GREEN/YELLOW
Sheath slippage • [%]	5.2	7.9	D078TD44S000C • RED
Static elongation • [%]	0	0	
Dynamic elongation • [%]	6.5	6.1	
Knotability	32	33	
	0.9	0.9	

MASTER 8.5

Rope diameter • [mm]	1/2	∞	ART. NO. • COLOUR
Weight • [g/m]	8.5	8.5	D085TF41S000C • GREEN/YELLOW
Number of UIAA falls	46	46	D085TF42S000C • KHAKI/BLUE
Max. impact force • [kN]	10	14-17	
Sheath slippage • [%]	5.1	7.7	
Static elongation • [%]	0.1	0.1	
Dynamic elongation • [%]	7	7	
Knotability	35	33	
	0,8	0,8	

AMBITION 9.8

Rope diameter • [mm]	①	ART. NO. • COLOUR
Weight • [g/m]	9.8	D098TR48S000C • BRIGHT YELLOW
Number of UIAA falls	64	D098TR42S000C • GREEN
Max. impact force • [kN]	9	D098TR41S000C • YELLOW
Sheath slippage • [%]	7.1	D098TR45S000C • BICOLOUR
Static elongation • [%]	0	
Dynamic elongation • [%]	6.2	
Knotability	35	
	0.8	

AMBITION 10

Rope diameter • [mm]	①	ART. NO. • COLOUR
Weight • [g/m]	10	D100TA41S000C • RED
Number of UIAA falls	67	D100TA42S000C • BLUE
Max. impact force • [kN]	9	
Sheath slippage • [%]	7.8	
Static elongation • [%]	0.1	
Dynamic elongation • [%]	5.7	
Knotability	33	
	1	

AMBITION 10.2

Rope diameter • [mm]	①	ART. NO. • COLOUR
Weight • [g/m]	10.2	D102TM41S000C • YELLOW
Number of UIAA falls	67	D102TM42S000C • BLUE
Max. impact force • [kN]	12-13	
Sheath slippage • [%]	7.1	
Static elongation • [%]	0.1	
Dynamic elongation • [%]	6.1	
Knotability	36	
	0.8	

NEW AMBITION 10.2 TEFIX

Rope diameter • [mm]	①	ART. NO. • COLOUR
Weight • [g/m]	10.2	D102AF41S000C • YELLOW
Number of UIAA falls	67	D102AF42S000C • ORANGE
Max. impact force • [kN]	11	
Sheath slippage • [%]	8.3	
Static elongation • [%]	0	
Dynamic elongation • [%]	6.9	
Knotability	33	
	0.8	

AMBITION 10,5

Rope diameter • [mm]	①	ART. NO. • COLOUR
Weight • [g/m]	10.5	D105TA41S000C • RED
Number of UIAA falls	69	D105TA42S000C • BLUE
Max. impact force • [kN]	9-10	D105TA47S000C • BRIGHT GREEN
Sheath slippage • [%]	7.9	
Static elongation • [%]	0	
Dynamic elongation • [%]	6	
Knotability	34	
	0.8	

AMBITION 8.5

Rope diameter • [mm]	1/2	ART. NO. • COLOUR
Weight • [g/m]	8.5	D085TB41S000C • YELLOW
Number of UIAA falls	45	D085TB42S000C • BLUE
Max. impact force • [kN]	8	
Sheath slippage • [%]	5	
Static elongation • [%]	0.1	
Dynamic elongation • [%]	7	
Knotability	38	
	1	

CODES AND COLOURS

ALPINE 7.9

	½	𝟾
Rope diameter • [mm]	7.9	7.9
Weight • [g/m]	39	39
Number of UIAA falls	6	16
Max. impact force • [kN]	5.4	7.8
Sheath slippage • [%]	0	0
Static elongation • [%]	6.7	7
Dynamic elongation • [%]	34	32
Knotability	0.8	0.8

ART. NO. • COLOUR

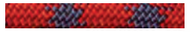

D079TL41S000C • RED


D079TL42S000C • YELLOW

TRUST 11

	①
Rope diameter • [mm]	11
Weight • [g/m]	79
Number of UIAA falls	16
Max. impact force • [kN]	8.1
Sheath slippage • [%]	0.1
Static elongation • [%]	6.1
Dynamic elongation • [%]	34
Knotability	0.9

ART. NO. • COLOUR


D110TT41S000C • RED


D110TT42S000C • YELLOW

TRUST 11.4

	①
Rope diameter • [mm]	11.4
Weight • [g/m]	84
Number of UIAA falls	20
Max. impact force • [kN]	8.4
Sheath slippage • [%]	0.1
Static elongation • [%]	5.5
Dynamic elongation • [%]	34
Knotability	1

ART. NO. • COLOUR


D114TA41S000C • YELLOW

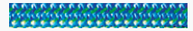

D114TA42S000C • BLUE

LOWE 9.7

	①
Rope diameter • [mm]	9.7
Weight • [g/m]	55
Number of UIAA falls	6
Max. impact force • [kN]	8.6
Sheath slippage • [%]	-0.15
Static elongation • [%]	7.4
Dynamic elongation • [%]	32
Knotability	1

ART. NO. • COLOUR


D097TW41S000C • GREEN


D097TW42S000C • BLUE

LOWE 8.4

	½	𝟾
Rope diameter • [mm]	8.4	8.4
Weight • [g/m]	41	41
Number of UIAA falls	5	12
Max. impact force • [kN]	5	8.9
Sheath slippage • [%]	0	0
Static elongation • [%]	5.4	5.3
Dynamic elongation • [%]	31	27
Knotability	0.8	0.8

ART. NO. • COLOUR


D084TW41S000C • BLUE


D084TW42S000C • YELLOW

HATTRICK 9.7

	①
Rope diameter • [mm]	9.7
Weight • [g/m]	61
Number of UIAA falls	5
Max. impact force • [kN]	8.4
Sheath slippage • [%]	0
Static elongation • [%]	9.0
Dynamic elongation • [%]	29
Knotability	1

ART. NO. • COLOUR


D097TH41S000C • GREEN/BLUE


D097TH42S000C • RED/BLUE

HATTRICK 9.9

	①
Rope diameter • [mm]	9.9
Weight • [g/m]	65
Number of UIAA falls	9
Max. impact force • [kN]	7.8
Sheath slippage • [%]	0
Static elongation • [%]	8.9
Dynamic elongation • [%]	32
Knotability	1

ART. NO. • COLOUR

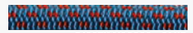

D099TH41S000C • GREEN/RED

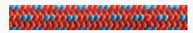

D099TH42S000C • BLUE/GREEN

HATTRICK 10.2

	①
Rope diameter • [mm]	10.2
Weight • [g/m]	66
Number of UIAA falls	5
Max. impact force • [kN]	8.2
Sheath slippage • [%]	0
Static elongation • [%]	5.4
Dynamic elongation • [%]	33
Knotability	0.9

ART. NO. • COLOUR


D102TH41S000C • BLUE


D102TH42S000C • RED

INDOOR 10.2i

	①
Rope diameter • [mm]	10.2
Weight • [g/m]	68
Number of UIAA falls	7
Max. impact force • [kN]	7.8
Sheath slippage • [%]	0
Static elongation • [%]	7.3
Dynamic elongation • [%]	36
Knotability	1

ART. NO. • COLOUR


D102TI41S000C • RED/YELLOW


D102TI42S000C • YELLOW/GREY

INDOOR 10.4

	①
Rope diameter • [mm]	10.4
Weight • [g/m]	72
Number of UIAA falls	8-9
Max. impact force • [kN]	7.7
Sheath slippage • [%]	0.1
Static elongation • [%]	6.5
Dynamic elongation • [%]	35
Knotability	1

ART. NO. • COLOUR


D104TI41S000C • BLUE/GREEN


D104TI42S000C • RED/GREY

CANYON DRY 9

	9
Rope diameter • [mm]	9
Weight • [g/m]	59
Number of falls (min.)	16
Relative mass of sheath	44
Sheath slippage • [%]	0,20
Elongation (50 – 150 kg)	3,6
Shrinkage • [%]	1
Tenacity • [kN]	30
Min. tenacity with knots • [kN]	18,4
Used material	PA
Type	A / EN 1891
Floating	No

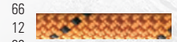
ART. NO. • COLOUR


C090TD41C000C • RED

CANYON WET 10

	10
Rope diameter • [mm]	10
Weight • [g/m]	66
Number of falls (min.)	12
Relative mass of sheath	33
Sheath slippage • [%]	2.7
Elongation (50 – 150 kg)	2.1
Shrinkage • [%]	0.8
Tenacity • [kN]	30
Min. tenacity with knots • [kN]	17
Used material	PA
Type	A / EN 1891
Floating	No

ART. NO. • COLOUR


C100TW48W000C • ORANGE

CANYON GRANDE 10**

	10
Rope diameter • [mm]	10
Weight • [g/m]	61
Number of falls (min.)	20*
Relative mass of sheath	49
Sheath slippage • [%]	2.6
Elongation (50 – 150 kg)	3.2
Shrinkage • [%]	1.7
Tenacity • [kN]	18
Min. tenacity with knots • [kN]	12
Used material	PA/PPV
Type	-
Floating	Yes

ART. NO. • COLOUR


C100TC41S000C • YELLOW

* weight 55 kg, fall factor 1
** tested according to EN 1891 type B except min. tenacity and material

SALAMANDER 10.2

	10.2*
Rope diameter • [mm]	10.2*
Weight • [g/m]	60
Number of falls (min.)	20**
Relative mass of sheath	47
Sheath slippage • [%]	0
Elongation (50 – 150 kg)	2.6
Shrinkage • [%]	0
Tenacity • [kN]	23
Min. tenacity with knots • [kN]	12
Used material	PA/PPV
Type	-
Floating	Yes

ART. NO. • COLOUR

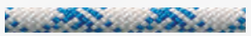

C102TS41S000C • YELLOW

* tested according to EN 1891 type B except material and number of falls
** weight 55 kg, fall factor 1

SPELEO

	9	10	10.5	10.5 Special	11
Rope diameter • [mm]	9	10	10.5	10.5 Special	11
Weight • [g/m]	48	66	72	76	77
Number of falls (min.)	12	20	20	12	20
Relative mass of sheath	44	42	46	51	42
Sheath slippage • [%]	1	0	2	1	2
Elongation (50 – 150 kg)	4.1	3.5	3.4	3.5	3.3
Shrinkage • [%]	2.2	1.8	1.9	0.3	1.8
Tenacity • [kN]	23	29	30	33	34
Min. tenacity with knots • [kN]	12	16	17	15	19
Used material	PA	PA	PA	PES/PA	PA
Type	B	A	A	A	A
Floating	-	-	-	-	-

ART. NO. • COLOUR


S105TG41S000C SPECIAL • WHITE/BLUE


ø 9 S090TS41S000C • WHITE/ORANGE
ø 10 S100TS41S000C • WHITE/ORANGE
ø 10.5 S105TS41S000C • WHITE/ORANGE
ø 11 S110TS41S000C • WHITE/ORANGE

TIMBER EVO

	11.5
Diameter • [mm]	11.5
Weight • [g/m]	90
Number of falls (min.)	20
Relative mass of sheathr • [%]	54
Sheath slippage • [mm]	10
Elongation (50 – 150 kg) • [%]	3
Shrinkage • [%]	1
Tenacity • [kN]	30
Min. tenacity with knots • [kN]	18
Used material	PES/PA
Type	A / EN 1891

ART. NO. • COLOUR


L115TE41S000C • YELLOW/BLACK

LOWERING ROPE

	15
Diameter • [mm]	15
Weight • [g/m]	172
Number of falls (min.)	-
Relative mass of sheathr • [%]	-
Sheath slippage • [mm]	-
Elongation (50 – 150 kg) • [%]	-
Shrinkage • [%]	-
Tenacity • [kN]	61
Min. tenacity with knots • [kN]	-
Used material	PES
Type	-

ART. NO. • COLOUR


L150TT41S000C • YELLOW/BLACK

TIMBER CORD 3

	3
Rope diameter • [mm]	3
Weight • [g/m]	2.5
Tenacity • [kN]	0.8
Used material	PE

COLOUR • ART. NO.


A030TT41S000C • RED

TIMBER CORD 8

	8
Rope diameter • [mm]	8
Weight • [g/m]	54.3
Tenacity • [kN]	20
Used material	PES/TECHNORA

COLOUR • ART. NO.


A080TP41S000C • WHITE/RED

TIMBER CORD 10

	10
Rope diameter • [mm]	10
Weight • [g/m]	73
Tenacity • [kN]	25
Used material	PES/TECHNORA

COLOUR • ART. NO.

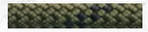

A100TP41S000C • YELLOW/BLACK

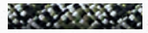
MILITARY 9

	9
Diameter • [mm]	9
Weight • [g/m]	50
Number of falls (min.)	20
Relative mass of sheath • [%]	49
Sheath slippage • [mm]	2
Elongation (50 – 150 kg) • [%]	3.8
Shrinkage • [%]	2.1
Tenacity • [kN]	23
Min. tenacity with knots • [kN]	13
Used material	PA
Type	B

COLOUR • ART. NO.


L090TS44S000C • BLACK


L090TS45S000C • GREEN


L090TS46S000C • CAMOUFLAGE


L090TS4KS000C • DESERT STORM

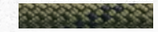

L090TS47S000C • SOLID BLACK

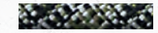
MILITARY 10

	10
Diameter • [mm]	10
Weight • [g/m]	69
Number of falls (min.)	20
Relative mass of sheath • [%]	39
Sheath slippage • [mm]	4
Elongation (50 – 150 kg) • [%]	3.4
Shrinkage • [%]	2
Tenacity • [kN]	31
Min. tenacity with knots • [kN]	17
Used material	PA
Type	A

COLOUR • ART. NO.


L100TS44S000C • BLACK


L100TS45S000C • GREEN


L100TS46S000C • CAMOUFLAGE


L100TS4KS000C • DESERT STORM

L100TS47S000C • SOLID BLACK

MILITARY 10.5

	10.5
Diameter • [mm]	10.5
Weight • [g/m]	72
Number of falls (min.)	20
Relative mass of sheath • [%]	36
Sheath slippage • [mm]	3
Elongation (50 – 150 kg) • [%]	3.4
Shrinkage • [%]	1.9
Tenacity • [kN]	32
Min. tenacity with knots • [kN]	18
Used material	PA
Type	A

COLOUR • ART. NO.

L105TS44S000C • BLACK

L105TS45S000C • GREEN

L105TS46S000C • CAMOUFLAGE

L105TS46S000C • CAMOUFLAGE

L105TS47S000C • SOLID BLACK

MILITARY 11

	11
Diameter • [mm]	11
Weight • [g/m]	80
Number of falls (min.)	20
Relative mass of sheath • [%]	40
Sheath slippage • [mm]	5
Elongation (50 – 150 kg) • [%]	3.3
Shrinkage • [%]	1.9
Tenacity • [kN]	33
Min. tenacity with knots • [kN]	20
Used material	PA
Type	A

COLOUR • ART. NO.

L110TS44S000C • BLACK

L110TS45S000C • GREEN

L110TS46S000C • CAMOUFLAGE

L110TS4KS000C • DESERT STORM

L110TS47S000C • SOLID BLACK

MILITARY 12

	12
Diameter • [mm]	12
Weight • [g/m]	92
Number of falls (min.)	20
Relative mass of sheath • [%]	35
Sheath slippage • [mm]	4
Elongation (50 – 150 kg) • [%]	3.2
Shrinkage • [%]	1.8
Tenacity • [kN]	42
Min. tenacity with knots • [kN]	25
Used material	PA
Type	A

COLOUR • ART. NO.

L120TS44S000C • BLACK

L120TS45S000C • GREEN

L120TS46S000C • CAMOUFLAGE

L120TS4KS000C • DESERT STORM

L120TS47S000C • SOLID BLACK

REFLECTIVE 11

	11
Diameter • [mm]	11
Weight • [g/m]	80
Number of falls (min.)	20
Relative mass of sheath • [%]	40
Sheath slippage • [mm]	5
Elongation (50 – 150 kg) • [%]	3.3
Shrinkage • [%]	1.9
Tenacity • [kN]	33
Min. tenacity with knots • [kN]	20
Used material	PA
Type	A

COLOUR • ART. NO.

L110TS49S000C • BLACK

ARAMID 10

	10*
Diameter • [mm]	10*
Weight • [g/m]	66.4
Number of falls (min.)	10
Relative mass of sheath • [%]	50
Sheath slippage • [mm]	0
Elongation (50 – 150 kg) • [%]	0
Shrinkage • [%]	1.5
Tenacity • [kN]	37
Min. tenacity with knots • [kN]	15
Used material	Aramid/PA
Type	*

COLOUR • ART. NO.

L100TA42S000C • BLACK

* tested according to EN 1891 except impact force

ARAMID 11

	11
Diameter • [mm]	11
Weight • [g/m]	80
Number of falls (min.)	18
Relative mass of sheath • [%]	47
Sheath slippage • [mm]	1
Elongation (50 – 150 kg) • [%]	3
Shrinkage • [%]	0.9
Tenacity • [kN]	45
Min. tenacity with knots • [kN]	15
Used material	Aramid/PA
Type	A

COLOUR • ART. NO.

L110TA41S000C • BLACK

FORCE 10

	10*
Diameter • [mm]	10*
Weight • [g/m]	68
Number of falls (min.)	5
Relative mass of sheath • [%]	40
Sheath slippage • [mm]	0
Elongation (50 – 150 kg) • [%]	2
Shrinkage • [%]	2
Tenacity • [kN]	24
Min. tenacity with knots • [kN]	13
Used material	PA/Steel
Type	*

COLOUR • ART. NO.

L100TF41S000C • BLACK

FORCE 11

	11**
Diameter • [mm]	11**
Weight • [g/m]	82
Number of falls (min.)	5
Relative mass of sheath • [%]	41
Sheath slippage • [mm]	5
Elongation (50 – 150 kg) • [%]	3.4
Shrinkage • [%]	1.8
Tenacity • [kN]	26
Min. tenacity with knots • [kN]	15
Used material	PA/Steel
Type	**

COLOUR • ART. NO.

L110TF41S000C • BLACK

* tested according to EN 1891 type B excepted material, marking and falls
** tested according to EN 1891 type A excepted material, marking and falls

STATIC 9

	9
Diameter • [mm]	9
Weight • [g/m]	50
Number of falls (min.)	20
Relative mass of sheath • [%]	49
Sheath slippage • [mm]	2
Elongation (50 – 150 kg) • [%]	3.8
Shrinkage • [%]	2.1
Tenacity • [kN]	23
Min. tenacity with knots • [kN]	13
Used material	PA
Type	B

COLOUR • ART. NO.

L090TS41S000C • WHITE

L090TS42S000C • RED

L090TS43S000C • BLUE

STATIC 9 TYPE A

	9
Diameter • [mm]	9
Weight • [g/m]	61
Number of falls (min.)	8
Relative mass of sheath • [%]	41
Sheath slippage • [mm]	0
Elongation (50 – 150 kg) • [%]	2.8
Shrinkage • [%]	1.9
Tenacity • [kN]	30
Min. tenacity with knots • [kN]	15
Used material	PA
Type	A

COLOUR • ART. NO.

L090TS41A000C • WHITE

STATIC 10

	10
Diameter • [mm]	10
Weight • [g/m]	69
Number of falls (min.)	20
Relative mass of sheath • [%]	39
Sheath slippage • [mm]	4
Elongation (50 – 150 kg) • [%]	3.4
Shrinkage • [%]	2
Tenacity • [kN]	31
Min. tenacity with knots • [kN]	17
Used material	PA
Type	A

COLOUR • ART. NO.

L100TS41S000C • WHITE

L100TS42S000C • RED

L100TS43S000C • BLUE

STATIC 10,5

	10.5
Diameter • [mm]	10.5
Weight • [g/m]	72
Number of falls (min.)	20
Relative mass of sheath • [%]	36
Sheath slippage • [mm]	3
Elongation (50 – 150 kg) • [%]	3.4
Shrinkage • [%]	1.9
Tenacity • [kN]	32
Min. tenacity with knots • [kN]	18
Used material	PA
Type	A

COLOUR • ART. NO.

L105TS41S000C • WHITE

L105TS42S000C • RED

L105TS43S000C • BLUE

STATIC 11

	11
Diameter • [mm]	11
Weight • [g/m]	80
Number of falls (min.)	20
Relative mass of sheath • [%]	40
Sheath slippage • [mm]	5
Elongation (50 – 150 kg) • [%]	3.3
Shrinkage • [%]	1.9
Tenacity • [kN]	33
Min. tenacity with knots • [kN]	20
Used material	PA
Type	A

COLOUR • ART. NO.

L110TS41S000C • WHITE

L110TS42S000C • RED

L110TS43S000C • BLUE

CODES AND COLOURS

	STATIC 12	STATIC 13	SECURE 10.5	SECURE 11
Diameter • [mm]	12	13	10.5	11
Weight • [g/m]	92	109	75	84.6
Number of falls (min.)	20	20	min. 17	min. 20
Relative mass of sheath • [%]	35	46	48.5	33.1
Sheath slippage • [mm]	4	0	0	0
Elongation (50 – 150 kg) • [%]	3.2	3.3	4.6	4.5
Shrinkage • [%]	1.8	1.8	1.2	0.8
Tenacity • [kN]	42	42	18	19.8
Min. tenacity with knots • [kN]	25	27	28	35
Used material	PA	PA	4.5	4.3
Type	A	A		
COLOUR • ART. NO.	L120TS41S000C • WHITE	L130TS41S000C • WHITE	L105TE41S000C • RED	L110TE43S000C • YELLOW
	L120TS42S000C • RED		L105TE42S000C • YELLOW	L110TE44S000C • BLUE
	L120TS43S000C • BLUE			

STATIC (NFPA)

	10.5	11	12
Diameter	0.413	0.433	0.472
MBS*	29	40.5	42
MBS*	6519	9105	9442
Weight	72	83	87
Elongation at 10% MBS	7	7.6	6.1
Elongation at 1.35 kN (300 lbf)	4.1	3.3	1.9
Elongation at 2.70 kN (600 lbf)	6.4	5.6	3.8
Elongation at 4.40 kN (1000 lbf)	9.5	8.3	6.3
NFPA 1983 2012 edition	Yes	Yes	Yes
Classified	Technical use	General use	General use

COLOUR • ART. NO.

L105NS41S000C • WHITE

L110NS41S000C • WHITE

L120NS41S000C • WHITE

ACCESSORY AND POWER CORDS

	4	5		6		7		8		2		3		9
Cord diameter • [mm]	4	5		6		7		8		2		3		9
Weight • [g/m]	12.7	18.9		23.2		34		39.8		2.8		6.5		54.4
Min. strength • [daN]	340	510		1000		1300		1640		120		190		1900
ART. NO. • COLOUR	A040TR41S100R • BLUE/YELLOW	A050TR41S100R • YELLOW	A050TR42S100R • BLUE	A060TR41S100R • GREEN	A060TR42S100R • RED	A070TR41S100R • RED	A070TR42S100R • YELLOW	A080TR42S100R • RED	A080TR41S100R • ORANGE	A020TH41S100R • BLUE	A020TH42S100R • YELLOW	A030TH41S100R • BLUE	A030TH42S100R • BLACK	A090TH41S100R • RED

REEP ARAMID	REEP REFLECTIVE	REEP TOUCH	
6	6	6	
22.9	23.2	23.2	
1700	1000	1000	
A060TA41S100R • BLACK	A060TR44S100R • BLACK	A060TT41S000R • WHITE/RED	A060TT42S000R • WHITE/BLUE

ENVIRONMENTAL FRIENDLY BRAND

To sustain our unique natural riches, it is necessary that all economic subjects contribute by a more responsible approach to sustain our planet for future generations. We cannot just take, we also have to give. We too also try to adhere to this approach - therefore all of our customers can return their old and damaged rope to us and we will ensure a completely free of charge recycling of it at our costs. Informative labels on ropes as well as the reels, on which our ropes are wound, are made of an ecologically recyclable material. The reels themselves are returnable and we reuse them to pack new ropes. Packagings of our dynamic ropes are packagings with an additional utility value - they may be reused for many other purposes after removing the ropes from them.

We are glad that we can contribute to the maintenance of a high-quality environment by our approach.

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PHILIPPINES	T3ck Outdoor	Unit 217 A AD CENTER SQUERE AMANG RODRIGUEZ AVE. SANTOLAN	Pasig City		+63 23 69 30 45	t3ckoutdoor.sales@gmail.com
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