



Tachyon 11,5mm
Xstatic 11,7 mm
drenaLINE 11,8 mm

KERNMANTELSEILE / KERNMANTLE ROPES

Herstellerinformation und Gebrauchsanleitung/
Manufacturer's information and instructions for use
EN 1891A:1998, ANSI Z133-2017

Together in Motion

WARNING

This product may be utilized only by persons trained in its safe use and having the relevant knowledge and skills, or under the direct supervision of such persons. Whenever possible, the equipment should be provided personally to the user. It may be used only within the specified limited scope of use and for the defined purpose.

Prior to using this product, read this document thoroughly, make sure you understand the instructions for use, and keep them with the product, together with the Inspection Sheet!

Keep instructions for future reference. In addition, check national safety regulations regarding personal protective equipment (PPE) use for local requirements. The product accompanied by this set of instructions is type-examined, CE-marked to state conformity with the European regulation (EU) 2016/425 on Personal Protective Equipment (PPE) and meets the European standard(s) given on the product label. The product does however not comply with any other standards unless explicitly stated. If the system is sold or passed on to another user, the instructions for use must accompany the equipment. If the system is transferred to another country, it is the responsibility of the seller/previous user to ensure that the instructions for use are in the correct language for that country. TEUFELBERGER is not responsible for any direct, indirect, or incidental consequences/damage occurring during or after the use of the product and resulting from any improper use, especially caused by incorrect assembly of the equipment. Edition 01/2023 Art. no.: 6800453

EXPLANATION OF THE MARKING

Product name

A xxx Type, diameter in mm, (example: A 10.5 = Type A rope, 10.5 mm diameter)

EN 1891:1998 Standard for low stretch kernmantle ropes

Ser. no.: unique job (production) number

ANSI Z133-2017: US-American standard for arboricultural operations

Length: only for customized ropes: length of rope in [m]

YY/MM: year/month of manufacture

CE 0408 / CE0598: The CE mark certifies compliance with the fundamental requirements of regulation (EU) 2016/425. The number identifies the inspection institute responsible for checking of manufactured personal protective equipment under module C2 or D: "0408" for TÜV Austria Services GmbH, Deutschstrasse 10, A-1230 Vienna, "0598" for SGS FIMKO OY – Takomotie 8– Helsinki – 00380 Finland. Type examination of the products was done by TÜV Austria Services GmbH, Vienna.



Manufacturer



Information that the Instructions for use have to be read.

spLIFE: name of the termination

The European standard symbols for washing and care instructions of textiles are used.

Sections of the low stretch kernmantel ropes must be marked at both ends with outer strips stating:

Type (A or B), diameter in mm, number of the standard (EN 1891), year of manufacture (at least the last two digits), manufacturer, ser. no.

WARNING

The use of our products can be dangerous. Our products may only be used for their intended purpose. They must particularly not be used for lifting as specified in EU directive 2006/42/EC. The customer is responsible that the user has been trained in the safe use of the product and in accompanying safety precautions. Be aware of the fact that the product can cause damage if wrongly used, stored, cleaned or overloaded. Check national safety regulations, industry recommendations and standards for local requirements. TEUFELBERGER® and 拖飞宝® are internationally registered trademarks of the TEUFELBERGER Group.

Product Name	Tachyon 11,5mm	drenaLINE 11,8 mm	Xstatic 11,7 mm
Actual Rope diameter [mm]	11,5	11,8	11,7
Sheath Slippage [mm]	-3	2.0	2,0
Elongation [%]	2,2	2,3	1,4
Cover [% of mass]	58	58	54
Core [% of mass]	42	42	46
Mass/length [g/m]	93,7	96,5	105,6
Static Strength - figure of eight termination [kN]	15	18	17
Static Strength - spLIFE termination [kN]	18	20	---
Static Strength - [slaice] [®] termination [kN]	---	16,5	---
Static Strength - free length [kN]	24	35	32
Sheath Material	Polyester	Polyester	Polyester
Core Material	Nylon	Nylon	Nylon
Type	A	A	A
Shrinkage	<5%	< 5%	< 5%

USE

Ropes to EN 1891 are for use in systems to EN 341 (descender devices), EN 358 (positioning systems) or EN 363 (fall arrest systems), i.e. for various types of rope-assisted work.

Please bear in mind that new, unused ropes may have a very smooth and even slippery surface. When using them in combination with devices, be sure to observe the respective manufacturer's information for the device.

IMPORTANT! High friction of the rope on a metal part (e.g. in excessively fast abseiling procedures) or of the rope on a rope or other textile material may cause overheating, damage to, and even rupturing of the rope.

End connections are supplied by us with a spLIFE termination or attached by means of a figure of eight knot; end connections for Xstatic 11,7mm are supplied as a figure of eight knot.

The spLIFE offers particular advantages:

- The rope remains flexible even near the eye termination.
- The eye termination is low profile and hardly exceeds the rope diameter.

The eye termination meets the requirements of EN 1891:1998 for rope type A, i.e. it withstands 15 kN for 3 minutes when new.

The breaking strength quoted is for rope, or rope including the eye termination loaded in a longitudinal direction. Therefore, never apply a transverse load to a rope end termination eye (e.g. by applying a load across the eye via two connectors in the same termination eye). Be aware of the loads applied to the rope in the chosen configuration and never overload it. We recommend safety factors of 7 or more. The end termination eye spLIFE is low profile and hardly exceeds the rope diameter.

Caution! The termination spLIFE, respectively, is not suitable for use as a stopper! If you wish to make the end connections yourself, we recommend the use of figure of eight knots.

Secure the figure 8 knot by attaching a further knot at the rope ends (e.g. a double overhand knot). Form the figure 8 knot correctly as shown below! Mind the course of the load bearing rope section (arrow). Deviating knot design considerably reduces the breaking load.

USE / LIMITATIONS OF USE / SECURITY



(Pic.1)

If any free climbing activity is necessary during the use of this rope in rope access, rescue or speleology, suitable ropes (e.g. dynamic mountaineering ropes to EN892) must be used.

The system must include a reliable anchoring point (in accordance with EN 795) above the user. The low stretch kernmantel rope should not be allowed to sag between the user and the reliable anchoring point.

Type A and B ropes:

The performance requirements of Type B ropes are lower than those for Type A ropes.

Accordingly, when using Type B ropes, greater care is required for protection against the effects of friction, cuts, general wear and tear etc. Consequently, the possibility of a fall must be minimised by applying maximum caution. Type A ropes are more suitable for rope-assisted work or working place positioning than Type B ropes.

LIMITATIONS OF USE

Do not carry out any rope-assisted work if your physical condition means that your safety could be at risk during normal use or in an emergency.

Any changes or additions to ropes to EN 1891 are forbidden and may only be made by the manufacturer. The breaking load of ropes / ropes with terminations is specified for tension applied in the ropes' longitudinal direction. Therefore, never subject end loops, for example, to transverse loads (2 karabiners in one loop). Check which load in the selected configuration acts on the rope and make sure that you do not overload it. We recommend a safety factor ≥ 7 .

Protect the rope and particularly the eye termination against abrasion and cuts. Metal parts must be burr-free and must not have rough or sharp edges that may damage the rope or the eye termination. It is essential that the end termination eye and its neighbouring components are compatible.

Use according to ANSI Z133-2017:

ANSI Z133-2017 requires arborist climbing lines (i.e. lines designated to support the climber while aloft in a tree or attached to a crane) to have a minimum diameter of 1/2 inch (12.7mm) with the following exception: In arboricultural operations not subject to regulations that supersede Z133, a line of not less than 7/16 inch (11 mm) diameter - like the line present in this product - may be used, provided the employer can demonstrate it does not create a safety hazard for the arborist and the arborist has been instructed in its use.

BEFORE USING, PLEASE NOTE

Prior to use the rope, and the eye termination in particular, must be subject to a **visual and tactile inspection** in order to verify its integrity, readiness for use and proper functioning. If the equipment has been affected by a fall, it must be withdrawn from use immediately.

Even if you have only the slightest doubt, the product must be withdrawn and may only be used again once an expert has authorised the use in writing following an inspection. Knots in the rope reduce the breaking load.

Do not use ropes whose previous usage history is unknown to you.

The user must ensure that the recommendations for **use with other elements** are complied with. Further PPE components must meet the harmonized standards under the regime of regulation (EU)

2016/425, such as descender devices EN 341, positioning systems EN 358 or fall arrest systems EN 363. Adjustment devices on descender devices must be adjusted to the diameter of the rope. Metal components must not include any burrs or sharp edges that might cause damage to the rope. You put yourself at risk by combining equipment parts that impair the safe operation of any part of the equipment or of the assembled equipment.

Before use, a **plan for rescue measures** must be prepared to take account of all possible emergencies. Before and during use, you must consider how the rescue measures can be carried out safely and effectively.

TRANSPORT, STORAGE & CLEANING

Low stretch ropes are usually made of polyamide fibres. The sheathing can also contain or be entirely made of polyester fibres. Consequently, they should not be exposed to heat exceeding 100°C. If you notice reactions such as discolouring or hardening, the product must be withdrawn for safety reasons. The rope can shrink by up to 7% if exposed to humidity. Accordingly, the rope should always be protected against dirt and placed in appropriate packaging (rope bag) **during transport**. Place the rope in the bag loosely and do not roll it up so as to avoid twisting.

Storage conditions:

- dry and clean
- at room temperature (15 – 25°C),
- protected against the light (UV radiation, welding equipment, ...),
- away from chemicals (liquids, vapours, gases, ...) and other aggressive conditions,
- protected against sharp-edged object.

A light-proof rope bag provides good protection.

To **clean** the rope, rinse it with lukewarm water and wipe with a damp cloth. The damp rope must be dried before storage. The rope should be left to dry naturally and not close to a fire or other sources of heat.

For **disinfection**, only use substances that have no influence on the synthetic materials used.

You put yourself at risk by not complying with these conditions.

REGULAR CHECKS

The equipment must be inspected regularly **without fail**: your safety depends on the effectiveness and durability of the equipment.

After every use, check the rope for possible damage. Inspect the rope visually from all sides. Feel along a seemingly intact rope (tactile check) in order to detect any hidden core damage that might have been caused by frequent bending or local overloading. If there is visible damage to the sheathing, the rope must not be used under any circumstances. If the rope shows swellings, discolouring or other unusual changes, we recommend withdrawing the rope.

Check the eye of the termination with special attention: The stitching that prevents the termination from gradually opening must be in place. The eye must not be longer than 25mm (length measured inside the eye). After every use, the equipment should be checked for abrasion and cuts.

Systems that have been damaged or affected by a fall must be withdrawn from use immediately.

If there is the slightest doubt, the product must be withdrawn or inspected by an expert.

In addition, if the equipment is used in worker safety in accordance with the EN 365, it must be inspected by the manufacturer or an expert complying precisely with the instructions, and replaced if necessary at least every 12 months. Records must be kept of this inspection (see table below).

REGULAR CHECKS / MAINTENANCE / SERVICE LIFE

This inspection must comprise:

- Inspection of the general condition: age, completeness, dirt, correct composition.
- Inspection of the labels: Present? Legible? CE marking present? Year of production visible?
- Inspection of the individual parts for mechanical damage such as cuts, cracks, notches, abrasion, deformation, ribbing, curling, squashing.
- Inspection of all individual parts for damage caused by heat or chemicals, such as fusion or hardening.
- Inspection of the metal parts for corrosion and deformation.
- Inspection of the completeness of the end connections, seams, knots.

Check the eye of the termination with special attention.

spLIFE: In the eye, part of the rope core is removed and there is less material to bear the load.



The stitching that prevents the termination from gradually opening must be in place. The eye must not be longer than 25mm (length measured inside the eye).

If the cover is damaged, the product must be discarded:

- Protruding fibres / yarns are a sign of abrasion.
- Cuts provide evidence of rope damage.
- Deformation and squashing may point to local overloading.
- Melted or hardened parts are signs of thermal and / or chemical impact.

Here, too, if there is the slightest doubt, the product must be withdrawn or inspected by an expert.

MAINTENANCE

Only the manufacturer is permitted to carry out repairs.

SERVICE LIFE

Its theoretically possible period of use is up 7 years (ropes with spLIFE) / 10 years (ropes without end-termination) from the time when the product is first removed from the undamaged package (only when used infrequently (1 week per year) and stored properly (see Chapter "Transport, Storage and Cleaning")). The product must be retired no later than after 7 years of use (ropes with spLIFE) / 10 years (ropes without end-termination). It is assumed that the product will be removed from its package upon purchase. We recommend keeping the sales receipt. The theoretically possible total lifetime (proper storage prior to first removal + use) is limited to 10 years from the date of manufacture.

Actual useful life depends solely on the condition of the product which is influenced by various factors (see below). The lifespan could be as short as first use under extreme conditions, or even less if damaged (e.g. in transit) prior to first use. Mechanical wear or other influences such as the effects of sunlight seriously reduce useful life. Bleached or rubbed fibres, discolouring and hardening are a sure sign that the product should be withdrawn from use. We expressly refrain from making any general statements about the useful life of the product, since it depends on a variety of factors such as UV light, the type and frequency of use, treatment, the effects of weathering such as snow, the environment such as salt, sand, battery acid, and many more factors.

In general, if for whatever reason, no matter how insignificant, the user is not certain that the product satisfies the requirements, it must be withdrawn from use and inspected by an expert. Any product that shows signs of wear should be withdrawn.

The product must be replaced without fail after a fall!

PRODUCT INSPECTION RECORD SHEET

DECLARATION OF CONFORMITY

The declaration of conformity can be accessed in the download area of www.teufelberger.com (category: declaration of conformity).

Product inspection record sheet:

Manufacturer: TEUFELBERGER	Model:	Retailer:	
Batch No.:	Serial No.:	Name of User:	
Date of Production:	Purchase Date:	Date of First Use:	Date of Retirement:
Compatible components within harness based work at height systems:			
Comments:			

Written Inspection Record Sheet

Date	Inspection type '(p, w, t, e)	Findings and actions (Defects, repairs, etc.)	Accept, Reject or Correct?	Next inspection date	Name and Signature of competent person

*Inspection types: p = pre-use check, w = weekly inspection, t = thorough inspection, e = exceptional circumstances



Download
Treecare Catalogue



Manufacturer:

TEUFELBERGER Fiber Rope Corp.

848 Airport Road, Fall River, MA 02720

Telephone: +1 508 678 8200

Fax: +1 508 679 8200

fiberrope@teufelberger.com

Importer to EU:

TEUFELBERGER Fiber Rope GmbH

Vogelweiderstraße 50

4600 Wels, Austria

Telephone: +43 (0) 7242 413-0

Fax: +43 (0) 7242 413-169

fiberrope@teufelberger.com

www.teufelberger.com