



# SLOVENSKI STANDARD

## oSIST prEN 564:2013

01-september-2013

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### Gorniška oprema - Pomožna vrv - Varnostne zahteve in preskusne metode

Mountaineering equipment - Accessory cord - Safety requirements and test methods

Bergsteigerausrüstung - Reepschnur - Sicherheitstechnische Anforderungen und Prüfverfahren

Equipement d'alpinisme et d'escalade - Cordelette - Exigences de sécurité et méthodes d'essai

Ta slovenski standard je istoveten z: **prEN 564**

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#### **ICS:**

|           |                                             |                                    |
|-----------|---------------------------------------------|------------------------------------|
| 97.220.40 | Oprema za športe na prostem in vodne športe | Outdoor and water sports equipment |
|-----------|---------------------------------------------|------------------------------------|

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EUROPEAN STANDARD  
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EUROPÄISCHE NORM

**DRAFT**  
**prEN 564**

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ICS 97.220.40

Will supersede EN 564:2006

English Version

## Mountaineering equipment - Accessory cord - Safety requirements and test methods

Équipement d'alpinisme et d'escalade - Cordelette -  
Exigences de sécurité et méthodes d'essai

Bergsteigerausrüstung - Reepschnur -  
Sicherheitstechnische Anforderungen und Prüfverfahren

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 136.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This document (prEN 564:2013) has been prepared by Technical Committee CEN/TC 136 “Sports, playground and other recreational facilities and equipment”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 564:2006.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

iTeh STANDARD PREVIEW  
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SIST EN 564:2015

<https://standards.iteh.ai/catalog/standards/sist/7b23289c-7755-489b-b50d-27d4bb3b10c6/sist-en-564-2015>

## 1 Scope

This European Standard specifies safety requirements and test methods for accessory cord comprising a core and a sheath, supplied on a drum or in separate lengths, for use in mountaineering including climbing.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 139, *Textiles - Standard atmospheres for conditioning and testing (ISO 139:2005)*

EN ISO 2307:2010, *Fibre ropes - Determination of certain physical and mechanical properties (ISO 2307:2010)*

## 3 Terms and definitions

For the purposes of this document, the following term and definition applies.

**3.1 accessory cord**  
cord or rope, comprising a core and a sheath, that has a nominal diameter of 4 mm to 8 mm and is intended to withstand forces, but not intended to absorb energy

## 4 Safety requirements

### 4.1 Diameter

The nominal diameter  $d_{\text{nom}}$  shall be one of the values given in Table 1.

The limit deviation between the actual value  $d_{\text{eff}}$  and the given nominal diameter shall be not more than  $\begin{pmatrix} +0,5 \\ -0,4 \end{pmatrix}$  mm.

The actual diameter shall be determined according to 5.3.

**Table 1 — Nominal diameter and minimum tensile strength**

| Nominal diameter<br>$d_{\text{nom}}$<br>mm | Minimum tensile strength<br>$F_{\text{Bmin}}$<br>kN |
|--------------------------------------------|-----------------------------------------------------|
| 4                                          | 3,2                                                 |
| 5                                          | 5,0                                                 |
| 6                                          | 7,2                                                 |
| 7                                          | 9,8                                                 |
| 8                                          | 12,8                                                |

## 4.2 Tensile strength

**4.2.1** The tensile strength of the accessory cord shall be not less than the value of  $F_B$ , calculated using Formula (1):

$$F_B = d_{\text{nom}}^2 \times f \quad (1)$$

where

$d_{\text{nom}}$  is the nominal diameter in millimetres;

$f$  is 200 N/mm<sup>2</sup>.

**4.2.2** The minimum tensile strength of the accessory cord,  $F_{B\text{min}}$  shall be as given in Table 1 for the appropriate diameter.

**4.2.3** The tensile strength shall be determined according to 5.4.

## 4.3 Packaging

If accessory cord is supplied on a drum and consists of more than one piece, the ends of the pieces shall be clearly visible and not joined together.

No testing required.

## 4.4 Mass per unit length

This mass shall be given as information according to Clause 7 d).

## 5 Test methods

### 5.1 Test sample

**5.1.1** Carry out the tests described in 5.4 on one test sample.

**5.1.2** Carry out the test described in 5.5 on one test sample.

### 5.2 Conditioning

Condition the test samples as described in EN ISO 139.

Carry out the test at a relative humidity which may be outside the standard atmosphere given in EN ISO 139, but at a temperature of  $(23 \pm 5)^\circ\text{C}$ , in which case the test shall begin within 5 min of removal from conditioning atmosphere.

### 5.3 Diameter

Measure the actual diameter  $d_{\text{eff}}$  under a load of  $(4 \pm 0,05)$  kg after the latter has been applied for  $(60 \pm 15)$  s.

Ensure that the cross-sectional area of the accessory cord is not subjected to any deformation during the measurement.

Take the measurements in two directions around the diameter, starting at points  $90^\circ$  apart, at each of three locations approximately 300 mm apart. The length of the contact areas of the measuring instrument shall be  $(50 \pm 1)$  mm.

Report the arithmetic mean of the six measurements, to the nearest 0,1 mm.

**prEN 564:2013 (E)****5.4 Determination of tensile strength**

Carry out the determination of the tensile strength by using a tensile testing machine and fixing devices in accordance with EN ISO 2307:2010, 5.1.

The minimum free length between attachment points shall be 200 mm.

Determine the loading speed,  $v$ , as a function of the free length of the test sample, using Formula (2):

$$v = 0,5 / \text{ with an accuracy of } \pm 20 \% \quad (2)$$

where

$v$  is the loading speed in millimetres per minute;

$l$  is the free length in millimetres between points of attachment.

**5.5 Determination of mass per unit length**

Carry out the test with a minimum free length between points of attachment of 1 300 mm.

NOTE There is no requirement for any particular type of fixing device.

Load the test sample without shock at a rate not exceeding 1 mm/s by means of a  $(4 \pm 0,05)$  kg test mass.

Retain the maximum load for  $(60 \pm 15)$  s and mark a reference length of  $(1\ 000 \pm 1)$  mm, with a distance between the marks and the points of attachment of at least 100 mm.

Release the load and cut the marked part from the test sample and determine its mass to the nearest 0,1 g.

Report the mass per unit length in grams per metre, to at least two significant figures.

There is no specific requirement for mass per unit length, but it can be marked on the drum or packaging of the accessory cord (see Clause 6).

**6 Marking**

The drum or production-line packaging of accessory cords shall be marked with at least the following items, which shall be given at least in the official language(s) of the state of destination within the European Community:

- a) the number of this European Standard, i.e. EN 564;
- b) name of the manufacturer or its representative in the European Community;
- c) nominal diameter of the accessory cord;
- d) tensile strength which the manufacturer ensures at the time of manufacturing;
- e) if accessory cord is supplied on a drum and consists of more than one piece, the number of pieces shall be stated on the drum;
- f) year of manufacture.



## 7 Information supplied by the manufacturer

The accessory cord shall be supplied with an explanatory leaflet, and written in at least the official language(s) of the state of destination within the European Community containing at least the following items:

- a) name and address of the manufacturer or its representative in the European Community;
- b) number of this European Standard, i.e. EN 564;
- c) nominal diameter of the accessory cord as specified in 4.1;
- d) mass per unit length of the accessory cord as specified in 5.5;
- e) tensile strength which the manufacturer ensures at the time of manufacturing;
- f) use of the product;
- g) how to choose other components for use in the system;
- h) how to maintain/service the product, on the effects of chemical reagents and how to disinfect the product without adverse effect;
- i) lifespan of the product or how to assess it and that after a serious fall the accessory cord should be withdrawn from use as soon as possible;
- j) influence of wet and icy conditions;
- k) danger of sharp edges;
- l) influence of storage and ageing due to use;
- m) influence of knots on the strength.

## Annex A (informative)

### Standards on mountaineering equipment

**Table A.1 — List of standards on mountaineering equipment**

| No | Document   | Title                                                                                                                                     |
|----|------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | EN 564     | Mountaineering equipment — Accessory cord — Safety requirements and test methods                                                          |
| 2  | EN 565     | Mountaineering equipment — Tape — Safety requirements and test methods                                                                    |
| 3  | EN 566     | Mountaineering equipment — Slings — Safety requirements and test methods                                                                  |
| 4  | EN 567     | Mountaineering equipment — Rope clamps — Safety requirements and test methods                                                             |
| 5  | EN 568     | Mountaineering equipment — Ice anchors — Safety requirements and test methods                                                             |
| 6  | EN 569     | Mountaineering equipment — Pitons — Safety requirements and test methods                                                                  |
| 7  | EN 892     | Mountaineering equipment — Dynamic mountaineering ropes — Safety requirements and test methods                                            |
| 8  | EN 893     | Mountaineering equipment — Crampons — Safety requirements and test methods                                                                |
| 9  | EN 958     | Mountaineering equipment — Energy absorbing systems for use in klettersteig (via ferrata) climbing – Safety requirements and test methods |
| 10 | EN 959     | Mountaineering equipment — Rock anchors — Safety requirements and test methods                                                            |
| 11 | EN 12270   | Mountaineering equipment — Chocks — Safety requirements and test methods                                                                  |
| 12 | EN 12275   | Mountaineering equipment — Connectors — Safety requirements and test methods                                                              |
| 13 | EN 12276   | Mountaineering equipment — Frictional anchors — Safety requirements and test methods                                                      |
| 14 | EN 12277   | Mountaineering equipment — Harnesses — Safety requirements and test methods                                                               |
| 15 | EN 12278   | Mountaineering equipment — Pulleys — Safety requirements and test methods                                                                 |
| 16 | EN 12492   | Mountaineering equipment — Helmets for mountaineers — Safety requirements and test methods                                                |
| 17 | EN 13089   | Mountaineering equipment — Ice-tools — Safety requirements and test methods                                                               |
| 18 | EN 15151–1 | Mountaineering equipment — Braking devices — Part 1: Braking devices with manually assisted locking, safety requirements and test methods |
| 19 | EN 15151–2 | Mountaineering equipment — Braking devices — Part 2: Manual braking devices, safety requirements and test methods                         |