



**SLOVENSKI STANDARD**  
**SIST EN 564:1998**  
**01-september-1998**

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**Gorniška oprema – Pomožna vrv – Varnostne zahteve in preskusne metode - Gorljivost**

Mountaineering equipment - Accessory cord - Safety requirements and test methods

Bergsteigerausrüstung - Reepschnur - Sicherheitstechnische Anforderungen und Prüfverfahren

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

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**Ta slovenski standard je istoveten z: EN 564:1997**

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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

EN 564

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 1997

ICS 97.220.40

Supersedes EN 564:1992

Descriptors: sport equipment, mountaineering, mountaineering ropes, safety, specifications, tests, breaking load, marking

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 -  
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This European Standard was approved by CEN on 1997-01-27. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

### CEN

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

## Foreword

This European Standard has been prepared by Technical Committee CEN/TC 136 "Sports, playground and other recreational equipment", the secretariat of which is held by DIN.

This European Standard supersedes EN 564:1992.

The text is based on UIAA-Standard G (Union Internationale des Associations d'Alpinisme), which has been developed with international participation.

This standard is one of a package of standards for mountaineering equipment, see annex A.

This European Standard 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 89/686/EEC.

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

Annexes A and ZA of this European Standard are informative.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 1997, and conflicting national standards shall be withdrawn at the latest by August 1997.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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## 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

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN 919:1995

Fibre ropes for general service – Determination of certain physical and mechanical properties

EN 20139

Textiles – Standard atmospheres for conditioning and testing (ISO 139:1973)

## 3 Definition

For the purposes of this standard the following definition applies:

**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.

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## 4 Safety requirements

### 4.1 Diameter

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

The limit deviation between the actual value  $d_{eff}$  and the given nominal diameter shall be not more than  $\begin{matrix} +0,5 \\ -0,2 \end{matrix}$  mm.

Table 1: Nominal diameter and minimum tensile strength

Nominal diameter $d_{nom}$ mm	Minimum tensile strength $F_{Bmin}$ 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 equation (1):

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

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.

## 5 Test methods

### 5.1 Test sample

5.1.1 Carry out the tests in 5.4 on a test sample of minimum length 8 000 mm.

5.1.2 Carry out the test in 5.5 on a test sample of minimum length 2 000 mm.

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### 5.2 Conditioning

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Condition the test samples as described in EN 20139, <https://standards.iteh.ai/catalog/standards/sist/7cda6b39-bc6f-4676-8c3a-6beab45c8119/sist-en-564-1998>

Carry out the test at a relative humidity which may be outside the standard atmosphere given in EN 20139, but at a temperature of  $(23 \pm 5)$  °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 an initial force of  $(40 \pm 1)$  N 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° apart, at each of three locations approximately 300 mm apart.

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

### 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 4.1 of EN 919 : 1995.

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 equation (2):

$$v = 0,5 l \pm 20\%$$

(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 1: 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.

NOTE 2: There is no requirement for mass per unit length, but it can be marked on the drum or packaging of the accessory cord (see clause 6).

## 6 Information to be supplied

- a) the name or trademark of the manufacturer, importer or supplier, together with their address ;
- b) the number of this European standard: EN 564;
- c) the diameter of the accessory cord as specified in 5.3;
- d) the mass per unit length of the accessory cord as specified in 5.5;
- e) the tensile strength which the manufacturer ensures at the time of manufacturing;
- f) the 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) the 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) the influence of wet and icy conditions;
- k) the danger of sharp edges;
- l) the influence of storage and aging due to use.

## 7 Marking

The drum or production-line packaging of accessory cords shall be marked with at least the following information:

- a) the word "accessory cord" and the number of this European Standard, i. e. EN 564;
- b) the name or trademark of the manufacturer, importer or supplier;
- c) the nominal diameter of the accessory cord;
- d) the tensile strength which the manufacturer ensures at the time of manufacturing.

NOTE: The mass per unit length can also be marked.

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## Annex A (informative)

## Standards on mountaineering equipment

Table A.1: List of standards on mountaineering equipment

No	Document	Title
1	EN 892	Mountaineering equipment – Dynamic mountaineering ropes – Safety requirements and test methods
2	prEN 12275	Mountaineering equipment – Connectors – Safety requirements and test methods
3	<sup>1)</sup>	Mountaineering equipment – Ice-tools – Safety requirements and test methods (00136012)
4	prEN 12277	Mountaineering equipment – Harnesses – Safety requirements and test methods
5	<sup>1)</sup>	Mountaineering equipment – Safety helmets – Safety requirements and test methods (00136076)
6	EN 564	Mountaineering equipment – Accessory cord – Safety requirements and test methods
7	EN 565	Mountaineering equipment – Tape – Safety requirements and test methods
8	EN 566	Mountaineering equipment – Slings – Safety requirements and test methods
9	prEN 12276	Mountaineering equipment – Frictional anchors – Safety requirements and test methods
10	prEN 12270	Mountaineering equipment – Chocks – Safety requirements and test methods
11	EN 567	Mountaineering equipment – Rope clamps – Safety requirements and test methods
12	EN 958	Mountaineering equipment – Energy absorbing systems for use in klettersteig (via ferrata) climbing – Safety requirements and test methods
13	EN 959	Mountaineering equipment – Rock anchors – Safety requirements and test methods
14	EN 568	Mountaineering equipment – Ice anchors – Safety requirements and test methods
15	EN 569	Mountaineering equipment – Pitons – Safety requirements and test methods
16	prEN 893	Mountaineering equipment – Crampons – Safety requirements and test methods
17	<sup>1)</sup>	Mountaineering equipment – Descenders – Safety requirements and test methods (00136079)
18	prEN 12278	Mountaineering equipment – Pulleys – Safety requirements and test methods
19	prEN 12492	Mountaineering equipment – Climbers safety helmets – Safety requirements and test methods
<sup>1)</sup> in preparation		