SLOVENSKI STANDARD
SIST EN 12277:2016+A1:2019

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Gorniška oprema - Pasovi - Varnostne zahteve in preskusne metode

Mountaineering equipment - Harnesses - Safety requirements and test methods

Bergsteigerausrüstung - Anseilgurte - Sicherheitstechnische Anforderungen und Prüfverfahren

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

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Mountaineering equipment - Harnesses - Safety requirements and test methods

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

Bergsteigerausrüstung - Anseilgurte - Sicherheitstechnische Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 26 September 2015 and includes Amendment 1 approved by CEN on 18 June 2018.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 12277:2015+A1:2018) 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 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of an identical text or by endorsement, at the latest by June 2019, and conflicting national standards shall be withdrawn at the latest by June 2019.

This document includes Amendment 1 approved by CEN on 18 June 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12277:2015.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1

In comparison with the previous edition, the following major changes were made:

a) Amendment of the belt test;

b) New definitions added and amendment of some definitions;

c) Amendment of safety requirements;

d) Amendment of test methods;

e) Amendment of marking and requirements for information supplied by the supplier.

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 Regulation, see informative Annex ZA, which is an integral part of this document.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The text of this European Standard is based on the former UIAA-Standard E “harnesses” (Union Internationale des Associations d'Alpinisme), which has been prepared with international participation.

This European Standard is one of a series of standards for mountaineering equipment, see Annex A.

1 Scope

This European Standard specifies safety requirements and test methods for harnesses for use in mountaineering including climbing. It is applicable to full body harnesses, small body harnesses, sit harnesses and chest harnesses.

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 892, *Mountaineering equipment — Dynamic mountaineering ropes — Safety requirements and test methods*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
harness
assembly of narrow textile fabric(s) (hereafter referred to as tape), adjusting device(s) and/or other elements which fit around the body to support it in a hanging position after a fall

3.1.1
full body harness (type A)
harness which fits at least around the upper part of the body and the thighs

Note 1 to entry: This type of harness will support an unconscious person in a head up position.

3.1.2
small body harness (type B)
full body harness according to type A intended for people up to 40 kg

Note 1 to entry: This type of harness is particularly suitable for people with an undeveloped or ill defined waistline.

3.1.3
sit harness (type C)
harness in the form of a waist belt and connecting sub-pelvic support suitably arranged to support a conscious body in a sitting position

3.1.4
chest harness (type D)
harness which fits around the upper part of the body around the chest and under the armpits

Note 1 to entry: A type D harness should only be used in combination with a type C harness.

3.2
load transmitting part
part of the harness which transmit load in the tests in accordance with 5.2.3, 5.2.4, 5.2.5 or 5.2.6 as appropriate

3.3
adjusting device
device which allows adjustment to be made to the harness(es) to the needs of the wearer

3.4
rope attachment point
part of the harness intended for the attachment of the rope

Note 1 to entry: Harnesses can have several attachment points.

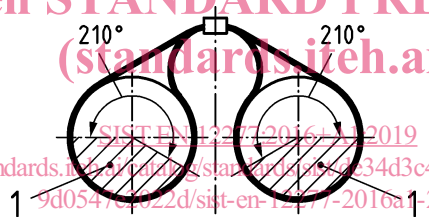
3.5
belt
part of the harness which is around the waist

4 Safety requirements

4.1 General

4.1.1 Load transmitting part

The following parts of the harness in contact with the dummy during the test are not defined as load transmitting parts to the body: shoulder straps, the part of the thighs excluded in Figure 1 and accessory parts.



Key
1 load transmitting part to the body

Figure 1 — Parts transmitting load to the body in leg loops of a harness

4.1.2 Dimensions of tapes

For ergonomic reasons the tape assembly shall comply with the following dimensions:

a) load transmitting parts to the body in contact with the dummy during the tests in accordance with 5.2.3.2, 5.2.4.2, 5.2.5.2 or 5.2.6.2 as appropriate:

   1) harnesses of type B and D: 28 mm minimum;

   2) all other types of harnesses: 43 mm minimum;

b) shoulder straps:

   1) harnesses of type B: 23 mm minimum;

   2) all other types of harnesses: 28 mm minimum;

c) all other parts: no requirements specified.

4.1.3 Threads

Where stitching is used to provide safety and strength (e.g. in joints) the visible area of stitching shall contrast with the tape in colour or surface appearance.

4.1.4 Components

Any component that can come into contact with the user or with any textile part shall be free from burrs and sharp edges.

4.1.5 Textile part

Any textile part which can come into contact with the user shall be free from burrs.

4.2 Strength

4.2.1 When tested in accordance with 5.2.3, 5.2.4, 5.2.5.2, 5.2.5.3 or 5.2.6, no load transmitting part to the body shall break completely. In addition, the dummy (or the cylinder) shall not be released from the harness and no load bearing buckles or adjusting devices shall slip more than 20 mm.

4.2.2 Any loop or combination of loops which are specified in the instructions for use for abseiling shall pass the tests in accordance with 5.2.3.2, 5.2.4.2 or 5.2.5.2, as appropriate.

4.2.3 If there are multiple rope attachment points (for different sizes) the tests in accordance with 5.2.3, 5.2.4, 5.2.5 or 5.2.6 shall be repeated as appropriate for each size as specified in the information to be supplied. Second and subsequent samples may be necessary.

4.2.4 If a harness of type B is adjustable, the range of adjustments shall be within the maximum and minimum ranges claimed on the label (in accordance with Clause 6). This shall be checked, after each of the adjustments, in accordance with 5.2.1.

4.2.5 If the type A or type B harness can be divided into a type C and a type D harness, each component which has a rope attachment point shall meet the requirements of this European Standard.

5 Test methods

5.1 Conditioning and test conditions

Dry the test samples for at least 24 h in an atmosphere of (50 ± 5) °C and less than 20 % relative humidity. Then condition these test samples in an atmosphere of (23 ± 2) °C and (50 ± 2) % relative humidity for at least 72 h. Then start testing these samples at a temperature of (23 ± 5) °C within 10 min.

5.2 Procedure

5.2.1 General

Verify the requirements according to 4.1.1, 4.1.3 and 4.1.4 by visual and tactile examination.

Verify the requirements according to 4.1.2 by measuring with the harness on the dummy loaded in accordance with 5.2.3.2, 5.2.4.2, 5.2.5.2 or 5.2.6.2. For the width in 4.1.2 the measurements shall be made in three locations per dimension.

5.2.2 Threads

Check by visual examination that the requirements specified in 4.1.3 are met.