SLOVENSKI STANDARD
SIST EN 13089:2000

01-julij-2000

Gorniška oprema - Orodje za led - Varnostne zahteve in preskusne metode

Mountaineering equipment - Ice-tools - Safety requirements and test methods

Bergsteigerausrüstung - Eisgeräte - Sicherheitstechnische Anforderungen und Prüfverfahren

Equipement d'alpinisme et d'escalade - Outils à glace - Exigences de sécurité et méthodes d'essai

Ta slovenski standard je istoveten z: **EN 13089:1999**

ICS:

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

SIST EN 13089:2000 **en**

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 13089

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ICS 97.220.40

English version

Mountaineering equipment - Ice-tools - Safety requirements and test methods

Equipement d'alpinisme et d'escalade - Outils à glace - Exigences de sécurité et méthodes d'essai

Bergsteigerausrüstung - Eisgeräte - Sicherheitstechnische Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 7 June 1999.

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.

This European Standard exists 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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

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Contents

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 shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2000, and conflicting national standards shall be withdrawn at the latest by January 2000.

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

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

Annexe A of this European Standard is informative.

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

1 Scope

This standard specifies safety requirements and test methods for ice-tools 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 any 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 565
Mountaineering equipment – Tape – Safety requirements and test methods

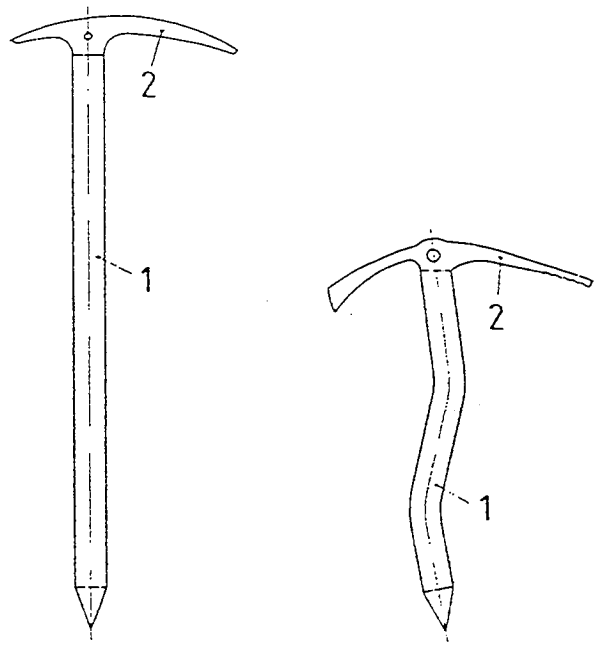
3 Definitions

For the purposes of this standard, the following definitions apply:

3.1 ice-tool: Hand held tool intended for movement on snow and/or ice which can be used as an anchor point. It comprises at least a shaft and a pick (see figure 1).

3.2 technical ice-tool (type T): Ice-tool intended for use when climbing steep ice.

3.3 basic ice-tool (type B): Ice-tools other than technical ice-tools.



1 Shaft of the ice-tool
2 Pick of the ice-tool

Figure 1: Main parts of an ice-tool

4 Safety requirements

4.1 General

Unless otherwise stated, the following requirements apply to both types of ice-tools.

4.2 Edges

All edges of the ice-tool with which the user's hands can come into contact shall be free from burrs.

4.3 Shaft strength

When tested in accordance with 5.3.3, on removal of the load from the shaft the permanent deformation at the point of application of the load shall not exceed 3 mm or the calculated f_k value.

4.4 Strength in the load direction YY

When tested in the load direction YY (see figure 2) in accordance with 5.3.4,

a) the test sample shall not break;

b) no component part of the test sample shall work loose.

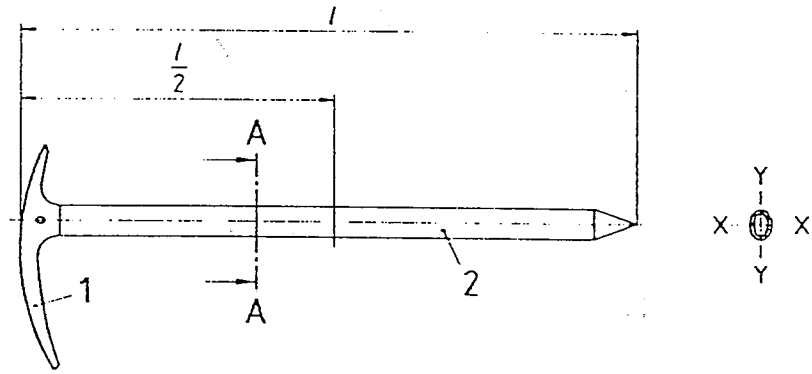
4.5 Strength in the load direction XX

When tested in the load direction XX (see figure 2) in accordance with 5.3.5,

a) the shaft shall not break;

b) no component part of the test sample shall work loose;

c) the permanent deformation at the point of application of the load shall not exceed 10 mm after removal of the load.



1 Pick
2 Shaft
XX/YY Load directions

Figure 2: Load directions XX and YY

4.6 Flat pick strength

When tested in accordance with 5.3.6,

a) the test sample shall not break;

b) no component part of the test sample shall work loose;

c) the permanent deformation at the point of application of the force shall not exceed 70 mm or the calculated f_K value after removal of the force.

4.7 Fatique performance of type T ice-tool picks

4.7.1 Flat picks

When tested in accordance with 5.3.7.1,

a) the test sample shall not break;

b) no component part of the pick shall work loose.

4.7.2 Circular and semicircular picks

When tested in accordance with 5.3.7.2,

a) the test sample shall not break;

b) no component part of the pick shall work loose.

5 Test methods

5.1 Preparation of test samples

For the strength tests 5.3.3 to 5.3.6 the test samples shall be conditioned for at least 1 h at (– 30 ± 5) °C. The tests shall be carried out at (23 ± 5) °C. Each test shall begin within 3 min from removal from conditioning.

5.2 Apparatus

For the tests 5.3.3 to 5.3.6 use a tape in accordance with EN 565 with a width of (15 ± 2) mm.

5.3 Procedure

5.3.1 Test sample

Carry out each test on a test sample not previously subjected to any load.

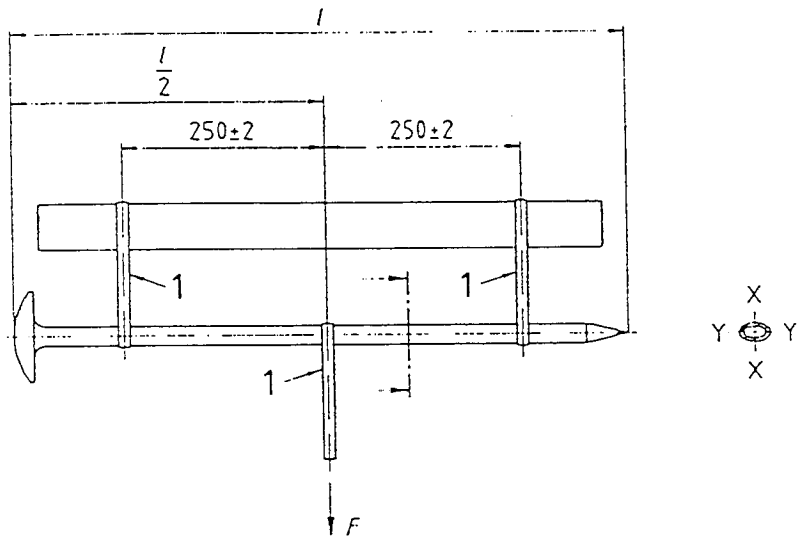
5.3.2 Edges

Check by visual and tactile examination that the requirements of 4.2 are met.

5.3.3 Shaft strength

Support the shaft horizontally and load it in the direction XX as shown in figure 3.

Dimensions in millimetres



1 Tape

Figure 3: Testing of shaft strength

If the ice-tool is long enough, arrange the tapes as shown in figure 3 with the load applied at the mid length of the ice-tool.