

SVENSK STANDARD

SS-EN 13089:2011+A1:2015



Fastställt/Approved: 2015-04-19
Publicerad/Published: 2015-04-21
Utgåva/Edition: 1
Språk/Language: engelska/English
ICS: 97.220.40

Klätterutrustning – Isverktyg – Säkerhetskrav och provningmetoder

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

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Denna standard ersätter SS-EN 13089:2011, utgåva 2.

The European Standard EN 13089:2011+A1:2015 has the status of a Swedish Standard. This document contains the official English version of EN 13089:2011+A1:2015.

This standard supersedes the Swedish Standard SS-EN 13089:2011, edition 2.

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EUROPEAN STANDARD

EN 13089:2011+A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2015

ICS 97.220.40

Supersedes EN 13089:2011

English Version

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

Équipement 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 5 February 2011 and includes Amendment 1 approved by CEN on 19 March 2015.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 13089:2011+A1:2015) 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 October 2015, and conflicting national standards shall be withdrawn at the latest by October 2015.

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

This document supersedes A1 EN 13089:2011 A1.

This document includes Amendment 1 approved by CEN on 2015-03-19.

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

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 89/686/EEC.

For relationship with EU Directive 89/686/EEC, see informative Annex ZA, which is an integral part of this document.

In comparison with the previous edition EN 13089:1999, the following significant changes have been made:

- a) an editorial revision has been carried on;
- b) the Scope is more specified to ice-tools as protection against falls;
- c) there is a new classification of ice-tools;
- d) Subclause 4.7 was deleted;
- e) the test method for shaft strength has been revised;
- f) Subclause 5.3.7 was deleted;
- g) there is an additional marking.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

This document is based on the former UIAA-Standard C (Union Internationale des ^{A1}Associations ^{A1}d'Alpinisme), which has been prepared with international participation.

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

1 Scope

This European Standard specifies safety requirements and test methods for ice-tools for use in mountaineering including climbing, and as a buried anchor for protection against falls.

2 Normative references

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

EN 565, *Mountaineering equipment — Tape — Safety requirements and test methods*

3 Terms and definitions

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

3.1

ice-tool

hand held tool intended for movement on snow and/or ice and/or rock which can also be used as an anchor point or as a brake in snow and comprises at least a shaft and a pick

NOTE See Figure 1.

3.2

type 1 ice-tool

ice-tool with a shaft/pick connection intended for use in snow and/or ice

3.3

type 2 ice-tool

ice-tool with a shaft/pick connection intended for use on rock, and/or snow, and/or ice

3.4

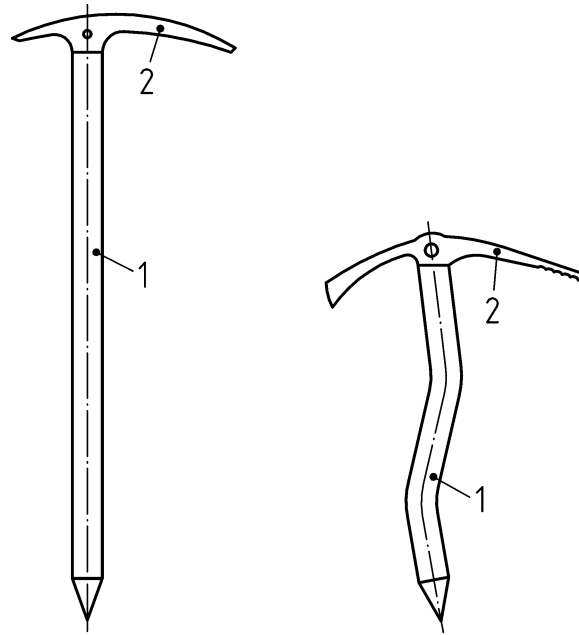
type 1 pick

pick intended for use in snow and/or ice

3.5

type 2 pick

pick intended for use on rock, and/or snow, and/or ice



Key

- 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 Edges

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

4.2 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.

4.3 Strength in the load direction YY

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

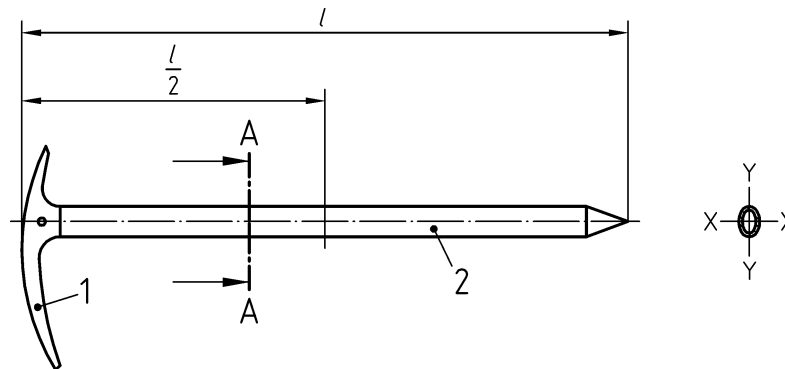
- a) the test sample shall not break;
- b) no component part of the test sample shall work loose.

4.4 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.



Key

- 1 Pick
- 2 Shaft
- XX/YY Load directions

Figure 2 — Load directions XX and YY

4.5 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.

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 $(-30 \pm 5)^\circ\text{C}$. The tests shall be carried out at $(23 \pm 5)^\circ\text{C}$. 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.