SLOVENSKI STANDARD
SIST EN 13484:2012

01-julij-2012

Nadomešča:
SIST EN 13484:2002

Čelade za uporabnike sani

Helmets for users of luges

Helme für Benutzer von Rodelschlitten

Casques pour utilisateurs de luges

Ta slovenski standard je istoveten z: EN 13484:2012

ICS:

13.340.20	Varovalna oprema za glavo	Head protective equipment
97.220.20	Oprema za zimske športe	Winter sports equipment

SIST EN 13484:2012 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 13484

February 2012

ICS 13.340.20

Supersedes EN 13484:2001

English Version

Helmets for users of luges

Casques pour utilisateurs de luges

Helme für Benutzer von Rodelschlitten

This European Standard was approved by CEN on 17 December 2011.

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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EUROPÄISCHES KOMITEE FÜR NORMUNG

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Ref. No. EN 13484:2012: E

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Foreword

This document (EN 13484:2012) has been prepared by Technical Committee CEN/TC 158 “Head protection”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by August 2012, and conflicting national standards shall be withdrawn at the latest by August 2012.

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 EN 13484:2001.

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.

Annex B provides details of significant technical changes between this European Standard and the previous edition.

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, 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

The intention of helmets is to reduce the risk of injury to the skull and part of the head surrounded by the helmet.

The protection given by a helmet depends on the circumstances of the accident and wearing a helmet cannot always prevent death or long term disability.

In this European Standard, the concept of optimum level of protection has been taken into account. This means that the protection efficiency is as high as possible, without decreasing the wearer's acceptance to the extent that she/he will not wear it, because of discomfort caused by the increase of the mass and dimensions.

A proportion of the energy of an impact is absorbed by the helmet, thereby reducing the force of the blow sustained by the head. The structure of the helmet can be damaged in absorbing this energy and any helmet that sustains a severe blow should be replaced even if damage is not apparent.

To achieve the performance of which it is capable, and to ensure stability on the head, a helmet should be as closely fitting as possible consistent with comfort. In use it is essential that the helmet is securely fastened, with any chin strap under proper tension at all times.

1 Scope

This European Standard specifies the minimum performance requirements and test methods for helmets for users of luges in competition in ice channels.

Requirements and the corresponding methods of test, where appropriate, are given for the following:

— construction including field of vision;

— shock absorbing properties;

— resistance to penetration;

— retention system properties;

— marking and information.

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 960:2006, *Headforms for use in the testing of protective helmets*

ISO 6487, *Road vehicles — Measurement techniques in impact tests — Instrumentation*

3 Terms and definitions

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

3.1
protective helmet
item to be worn on the head, intended to absorb the energy of an impact, thus reducing the risk of injury to the head

[based on EN 1077:2007]

3.2
shell
outer layer which provides part of the whole general form of the helmet

[based on EN 1077:2007]

3.3
helmet type
category of helmets which does not differ in such essential respects as the materials or dimensions or construction of the helmet, of the retention system, or of the protective padding

[based on EN 1077:2007]

Note 1 to entry Helmet type can include a range of helmet sizes, provided that the thickness of the protective padding in each size in the range is at least equal to that in the helmet which when subjected to the tests satisfies the requirements of this European Standard.

3.4
padding
[according to EN 1077:2007]

3.5
retention system
complete assembly by means of which the helmet is maintained in position on the head, including any devices for adjustment of the system or to enhance the wearer's comfort

[based on EN 1077:2007]

3.6
chin-strap
part of the retention system consisting of a strap that passes under the wearer's jaw to keep the helmet in position

[based on EN 1077:2007]

3.7
basic plane of the human head
longitudinal plane which passes through the lower level of the eye orbits and the upper level of the external opening of the ear canals

[EN 960:2006, 2.10]

3.8
basic plane of a headform
plane relative to the headform that corresponds to the basic plane of the human head

[based on EN 1077:2007, definition equivalent to that in EN 960:2006, 2.10]

3.9
reference plane
construction plane parallel to the basic plane of the headform at a distance from it which is a function of the size of the headform

[based on EN 1077:2007, definition equivalent to that in EN 960:2006, 2.5]

3.10
luge
equipment guided by runners, without any inside or outside driving power, for using in ice channels and not in natural tracks or downhill gliding

4 Requirements

4.1 Materials

For those parts of the helmet coming into contact with the skin the material used shall be known not to undergo appreciable alteration from contact with sweat or with substances likely to be found in cosmetic products. Materials shall not be used which are known to cause skin disorders. Testing according to 5.1.

4.2 Construction

4.2.1 General

The helmet normally consists of means of absorbing impact energy and means of retaining the helmet on the head even in an accident.

The helmet shall be so designed and shaped that parts of it (visor, rivets, ventilators, edges, fastening device and the like) are not likely to injure the user in normal use.

NOTE Helmets should:

— have low weight;

— be easy to put on and take off;

— be usable with spectacles;

— not significantly interfere with the ability of the user to hear;

— have good durability and withstand normal handling;

— permit cleaning.

Testing shall be in accordance with 5.1.

4.2.2 Retention system

4.2.2.1 General

Means shall be provided for retaining the helmet on the wearer's head. All parts of the retention system shall be securely attached to the system or to the helmet.

NOTE 1 It is recommended that the opening mechanism be marked with red or orange colour.

NOTE 2 The colour of any part of the retention system should not be green, as green is used for helmets with an emergency release system.

Testing shall be in accordance with 5.1.

4.2.2.2 Chin straps

The chin strap shall not include a chin cup.

Any chin strap shall be no less than 15 mm wide.

Chin straps can be fitted with means of enhancing comfort for the wearer.

Testing shall be in accordance with 5.1.

4.2.2.3 Fastening devices

Any chin strap shall be fitted with a device to adjust and maintain tension in the strap.

Testing shall be in accordance with 5.1.

4.2.3 Field of vision

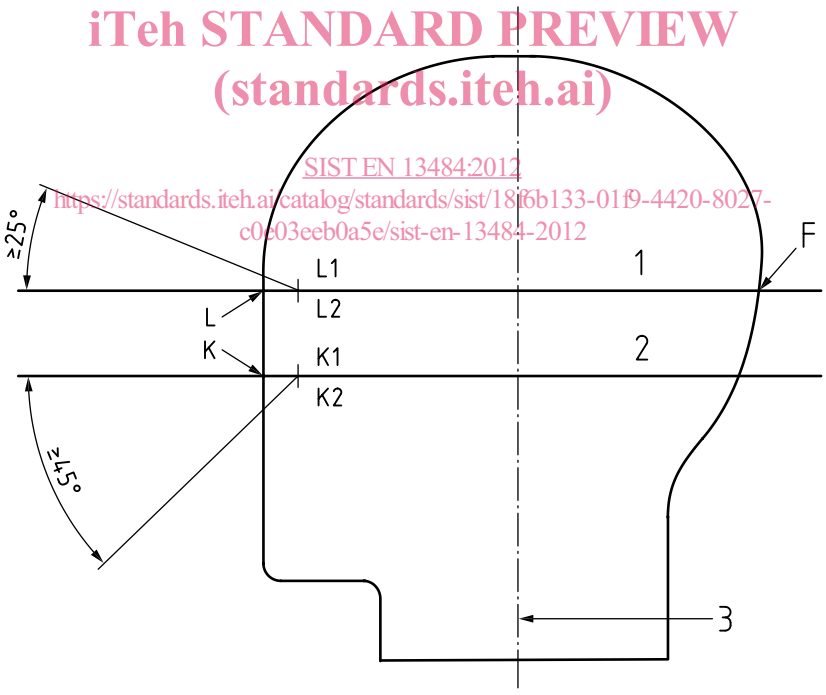
When tested in accordance with 5.5 there shall be no occultation in the field of vision bounded by angles as follows (see Figure 1):

— horizontally 105°

— upwards 25°

— downwards 45°

Dimensions in millimetres



Key

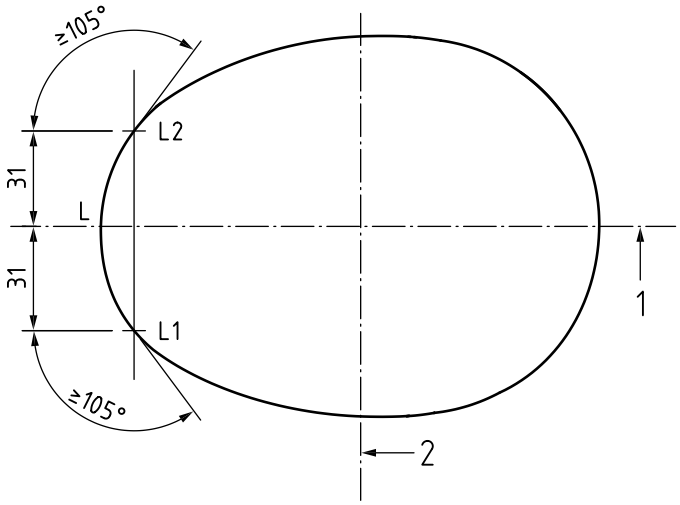
1 reference plane

2 basic plane

3 central vertical axis

a) Section of headform in vertical longitudinal plane

Dimensions in millimetres



Key

1 vertical longitudinal plane

(defined in EN 960:2006, 2.8 as mid-way between the headform's left- and right-hand extremities)

2 vertical transverse plane

(defined in EN 960:2006, 2.9 as mid-way between the headform's front and rear extremities)

b) Section of headform in reference plane

Figure 1 — Field of vision

4.3 Extent of coverage

When tested in accordance with 5.5 the helmet shall cover at least the area above the line BCDEA' in Figure 2. Measurements for different headform sizes are given in Table 1.

NOTE Table 1 gives the EN 960:1994 equivalent letter codes to the EN 960:2006 size designations for headforms with similar nominal dimensions. These are as given in EN 960:2006, Annex C. The EN 960:2006 size designation approximates to the circumference of the headform at the reference plane, in mm.