SLOVENSKI STANDARD
oSIST prEN ISO 10256-2:2022

01-januar-2022

Varovalna oprema za uporabo pri hokeju na ledu - 2. del: Zaščita glave za drsalce (ISO/DIS 10256-2:2021)

Protective equipment for use in ice hockey - Part 2: Head protection for skaters (ISO/DIS 10256-2:2021)

Schutzausrüstung zum Gebrauch beim Eishockey - Teil 2: Kopfschutz für Eisläufer (ISO/DIS 10256-2:2021)

Équipements de protection destinés à être utilisés en hockey sur glace - Partie 2: Protections de tête pour les patineurs (ISO/DIS 10256-2:2021)

Ta slovenski standard je istoveten z: **prEN ISO 10256-2**

ICS:

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

oSIST prEN ISO 10256-2:2022 **en,fr,de**

DRAFT INTERNATIONAL STANDARD

ISO/DIS 10256-2

ISO/TC **83**/SC **5**

Secretariat: **SCC**

Voting begins on:
2021-11-16

Voting terminates on:
2022-02-08

Protective equipment for use in ice hockey —

Part 2:
Head protection for skaters

ICS: 97.220.20; 13.340.20

This document is circulated as received from the committee secretariat.

ISO/CEN PARALLEL PROCESSING

Reference number
ISO/DIS 10256-2:2021(E)

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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 83, *Sports and other recreational facilities and equipment,* Subcommittee SC 5, *Ice hockey equipment and facilities,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 158, *Head protection,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 10256-2:2016), which has been technically revised.

The main changes compared to the previous edition are as follows:

— Definitions were reordered to reflect their location in the document and updated.

— Clauses 4.1, 4.4, 5.1 and 5.7 were updated.

— In Clause 4.4 a), the degree of the upward plane was changed from 35° to 25° to align with EN 13087-6:2012.

— Apparatus was added to Clause 5.4 and the procedure updated.

— Clause 5.6 (field of vision) was modified to refer to EN 13087-6:2012.

— Clause 5.7.3 was updated to refer to a revised Annex A.

— Table 1 was revised to include additional tests.

— Annex A was expanded to include more information on the testing equipment and procedure.

— Annex ZA was revised.

A list of all parts in the ISO 10256 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

European foreword

This document (ISO 10256-2:202x) has been prepared by Technical Committee ISO/TC 83, “Sports and other recreational facilities and equipment” /SC 5 “Ice hockey equipment and facilities” in collaboration with Technical Committee CEN/TC 158 “Head protection” the secretariat of which is held by SIS.

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 Month 202x, and conflicting national standards shall be withdrawn at the latest by Month 202x.

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 has been prepared under a standardization request (M/571) given to CEN by the European Commission and the European Free Trade Association and supports essential requirements of Regulation (EU) 2016/425.

For the 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 10256-2:202x has been approved by CEN as ISO 10256-2:202x without any modification.

Introduction

Ice hockey is a high speed, collision sport in which there is a risk of injury. The objective of ISO 10256-2:202x is to specify performance requirements and test methods for head protectors for use in ice hockey considering the risks inherent in participating in the sport, many of which cannot be eliminated by protective equipment.

Ice hockey head protectors afford no protection from neck or spinal injury. Severe head, brain, or spinal injuries, including paralysis or death, can occur despite using an ice hockey head protector in accordance with this part of ISO 10256. By playing this sport, participants accept the risk of serious injury, paralysis and/or death.

The intention of head protection used in ice hockey is to reduce the frequency and severity of localized injuries to the head. The protective function is such that the force from impacts against the head protector is distributed and dampened and the penetration of objects is counteracted.

To achieve optimal head protector performance and to ensure stability on the head, a head protector is intended fitted as closely as possible consistent with comfort. In use, it is essential that the head protector is securely fastened, with any retention system adjusted in accordance with manufacturer's instructions.

Subcommittee 5 is aware that head protector performance specifications are required to reduce the risk of injury in ice hockey. There was consensus that most of today's head protectors meet the performance requirements of this part of ISO 10256. The goal of the subcommittee is to promote the use of better materials and/or construction as they become available to meet the future requirements of the sport of ice hockey. Subcommittee 5 recognizes that to provide for comfort, fit and use, head protectors are intended to have a mass consistent with the appropriate performance characteristics.

Protective equipment for use in ice hockey —

Part 2:
Head protection for skaters

1 Scope

ISO 10256-2:202x specifies performance requirements and test methods for head protectors for use in ice hockey and is intended to be used in conjunction with ISO 10256-1:202x.

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

a) materials and construction

b) protected area (coverage);

c) penetration resistance (test blade);

d) field of vision;

e) shock absorbing capacity;

f) retention system properties;

g) test report;

h) markings; and

i) information for users.

This part of ISO 10256 applies to head protectors worn by

— ice hockey players (not goalkeepers, except where ISO 10256-4:202x references this Standard), and

— referees.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 6487:2015, *Road vehicles — Measurement techniques in impact tests — Instrumentation*

ISO 10256-1:202x, *Protective equipment for use in ice hockey — Part 1: General requirements*

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

EN 13087-6, *2012, Protective helmets — Test methods — Part 6: Field of vision*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10256-1:202x and the following apply.

3.1
attachments
protectors which can be adjusted or removed by the user described in the manufacturer's documentation.

3.2
field of vision
extent of vision through the protector in the 'as worn' position.

3.3
crack
a condition in which the protector breaks through the full thickness of the material without complete separation of parts.

3.4
fracturing (breakage)
a condition in which there is a complete separation into pieces or fragments of any part of the protector.

3.5
retention system
system which secures the head protector firmly to the head by passing under the mandible in whole or in part when adjusted in accordance with manufacturer's instructions,

3.6
head protector
a device intended to reduce the risk of head injury to ice hockey participants

3.7
central vertical axis
axis lying along the intersection of the median and mid-frontal planes.

3.8
test line
line that defines the boundaries of the test area.

Note 1 to entry: See Figure 2.

3.9
fastening system
devices used to connect one or more attachments to the head protector

3.10
HPI (head protector positioning index)
vertical distance measured at the median plane, from the front edge of the head protector to the reference plane, when the head protector is placed on the reference headform

3.11
non-prescribed impact sites
any location on or above the test line

Note 1 to entry: See Figure 2

3.12
test area
area on and above the test line, where an impact site shall be located.

3.13
support assembly
drop assembly in the monorail system minus the mass of the headform, ball arm, ball clamp, ball clamp bolts, and accelerometer.

3.14
spherical impactor
device made of low resonance material that couples mechanically with the ball arm connector of the drop assembly in place of the impact test headform and is used for system verification of the drop assembly.

Note 1 to entry: Magnesium, aluminium alloy, or stainless steel are examples of low-resonance material.

3.15
head protector model
category of head protector that have the same essential characteristics and dimensions

Note 1 to entry: Essential characteristics include:

a) materials;

b) construction;

c) retention system;

d) protective padding.

4 Requirements

4.1 Materials and construction

The head protector shall meet the requirements given in ISO 10256-1:202x, Clause 4.1 and 4.2 and tested in accordance with ISO 10256-1:202x, Clause 5.1 and 5.2.

4.2 Protected area

4.2.1 General

When tested in accordance with 5.4 the head protector shall cover the area above the line BCDEF in Figure 3.

4.2.2 Ear aperture

No ear aperture (opening) in the protected area shall have a linear dimension exceeding 38 mm. The distance to any other edge of the head protector shall be not less than 20 mm from any edge. The ear aperture shall be completely surrounded by the outer covering of the head protector (shell).

4.2.3 Ventilation

Head protectors shall be designed and manufactured in a way that perspiration resulting from use is minimised.

4.3 Penetration (test blade)

Except for the ear apertures and when tested in accordance with 5.5, there shall be no contact with the bare headform by the test blade within the protected area.

NOTE See Figure 3 and Figure 5.