INTERNATIONAL STANDARD

ISO 18526-4

First edition
2020-02

Eye and face protection — Test methods —

Part 4: Headforms

Protection des yeux et du visage — Méthodes d'essai —

Partie 4: Fausses têtes

Reference number
ISO 18526-4:2020(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).

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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 ISO/TC 94, *Personal safety — Personal protective equipment*, Subcommittee SC 6, *Eye and face protection*.

A list of all parts in the ISO 18526 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.

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Introduction

The family of documents comprised of the ISO 16321 series, the ISO 18526 series and the ISO 18527 series was developed in response to the worldwide stakeholders' demand for minimum requirements and test methods for eye and face protectors traded internationally. ISO 4007 gives the terms and definitions for all the various product types. The test methods are given in the ISO 18526 series, while the requirements for occupational eye and face protectors are given in the ISO 16321 series. Eye protectors for specific sports are mostly dealt with by the ISO 18527 series. A guidance document, ISO 19734, for the selection, use and maintenance of eye and face protectors is under preparation.

The basic anatomical requirements of the users of eye and face protection are to be considered when selecting an appropriate size of protector for comfortable and functional use. This document provides the anthropometric and biomechanical data required to prepare headforms used for the testing of protectors. The headform dimensions (series 1 and 2) are based on measurements of humans by the USA's National Institute of Occupational Safety and Health (NIOSH), which is part of the Centers for Disease Control and Prevention.

This document provides headform dimensions based on measurements of humans. Further information is given in Annex A and Annex B, which, together with Figure 3, are reproduced with NIOSH's and the authors' permission. Figures 2 and 3 show the headforms that are slightly modified to show better eye detail.

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Eye and face protection — Test methods —

Part 4: Headforms

1 Scope

This document specifies the dimensions and tolerances of the headforms used for the testing of eye and face protectors.

Additional information is given for:

— anthropometric measurement methods;

— anthropometric data for head and face dimensions;

— human test panels.

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 4007, *Personal protective equipment — Eye and face protection — Vocabulary*

CSA Z262.6:2014, *Specifications for facially featured headforms*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4007 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 Headforms

4.1 Classification of adult headforms

Six different sizes of headforms are used for testing as given in Table 1.

Table 1 — Classification of headforms for eye and face protectors

Small	Medium	Large
1-S	1-M	1-L
2-S	2-M	2-L

Statistically these six headforms cover approximately 95 % of the population included in this document. Annex A and Annex B provide detailed information on the data collection and the human populations

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