
**Eye and face protection for sports
use —**

**Part 3:
Requirements and test methods for
eyewear intended to be used for
surface swimming**

Protection des yeux et du visage à usage sportif —

*Partie 3: Exigences et méthodes d'essai pour les articles de lunetterie
destinés à la natation de surface*



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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).

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For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 94, *Personal safety — Personal protective equipment*, Subcommittee SC 6, *Eye and face protection*.

A list of all parts in the ISO 18527 series can be found on the ISO website.

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

Introduction

This 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.

Eye and face protection for sports use —

Part 3:

Requirements and test methods for eyewear intended to be used for surface swimming

1 Scope

This document specifies requirements and test methods for eyewear intended for surface swimming only. It contains requirements for eyewear for both recreational and specialist competitive swimming. It deals with materials, construction, optical properties and test methods.

Requirements for the labelling and marking of swimming eyewear and for information to be supplied by the manufacturer are also specified.

Eyewear intended for surface swimming conforming to the requirements of this standard are suitable for surface use and shallow diving only, e.g. from the edge of a pool, and are not suitable for wear when diving from a high board.

This document applies to eyewear that include

- a) non-prescription nominally plano or afocal lenses,
- b) non-prescription mass-produced corrective lenses, and
- c) prescription lenses.

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 48-2, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 2: Hardness between 10 IRHD and 100 IRHD*

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

ISO 8980-1:2017, *Ophthalmic optics — Uncut finished spectacle lenses — Part 1: Specifications for single-vision and multifocal lenses*

ISO 8980-2:2017, *Ophthalmic optics — Uncut finished spectacle lenses — Part 2: Specifications for power-variation lenses*

ISO 11664-2, *Colorimetry — Part 2: CIE standard illuminants*

ISO 12312-1:2013, *Eye and face protection — Sunglasses and related eyewear — Part 1: Sunglasses for general use*

ISO 18526-1:2020, *Eye and face protection — Test methods — Part 1: Geometrical optical properties*

ISO 18526-2:2020, *Eye and face protection — Test methods — Part 2: Physical optical properties*

ISO 18526-3:2020, *Eye and face protection — Test methods — Part 3: Physical and mechanical properties*

ISO 18526-4:2020, *Eye and face protection — Test methods — Part 4: Headforms*

ISO 21987:2017, *Ophthalmic optics — Mounted spectacle lenses*

3 Terms and definitions

For the purposes of this document, the terms and the definitions given in ISO 4007 and the following 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/>

3.1

swimming goggles

eyewear having individual cup-type flat or curved sheet plano lenses or corrective lenses for each eye and designed for surface swimming only

3.2

swimming mask

eyewear (with one-piece or separate lenses) intended for surface swimming with a single *water seal* or *water gasket* (3.4) on the perimeter of the frame that does not cover the nostrils

3.3

eyecup

part of the eyewear surrounding the lens or lenses, generally with the *water seal* or water gasket (3.4) incorporated

Note 1 to entry: Some eyewear designed for competitive use may not have a *water seal* (3.4).

3.4

water seal

water gasket

water cushion

sealing material typically made of a soft or semi-rigid material attached or adhered to the *eyecup* (3.3) to assist sealing between the face and the eyewear

3.5

nosebridge strap

section of the complete goggle that connects the *eyecups* (3.3) together either by way of a separate adjustable strap or fixed strap that is integral to the frame

Note 1 to entry: Some products have a nosebridge strap that is one-piece with the frame and, as a consequence, is not adjustable. Some products have a separate nosebridge strap and eyecups and this may be adjustable.

3.6

temporal flange lens

lens that is flat or has a shallow curve across the optical aperture but with a temporal zone angled towards the wearer's face

Note 1 to entry: See [Figure 1](#).