INTERNATIONAL STANDARD

ISO 12312-1

First edition
2013-08-01

AMENDMENT 1
2015-09-15

Eye and face protection — Sunglasses and related eyewear —

Part 1: Sunglasses for general use

AMENDMENT 1

Protection des yeux et du visage — Lunettes de soleil et articles de lunetterie associés —

Partie 1: Lunettes de soleil pour usage général

AMENDEMENT 1

Reference number
ISO 12312-1:2013/Amd.1:2015(E)

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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. 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. 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 on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 94, *Personal safety — Protective clothing and equipment*, Subcommittee SC 6, and by Technical Committee CEN/TC 85, *Eye protective equipment* in collaboration.

Eye and face protection — Sunglasses and related eyewear —

Part 1: Sunglasses for general use

AMENDMENT 1

Page 1, Clause 1

Delete paragraph 3 and replace by the following:

"This part of ISO 12312 is not applicable to related eyewear, such as:

a) eyewear for protection against radiation from artificial light sources, such as those used in solaria;

b) eye protectors intended for specific sports (e.g. ski goggles or other types);

c) sunglasses that have been medically prescribed for attenuating solar radiation;

d) products intended for direct observation of the sun, such as for viewing a partial or annular solar eclipse;

e) products intended for occupational eye protection."

Page 2, 5.2

Delete the following sentence:

"Unless the filter is one of the following, category 0 shall not be claimed:

— a filter for which specific protection against any part of the solar spectrum is claimed;

— a photochromic filter in its faded state."

Page 3, 5.3.2

Delete the existing text and replace by the following:

"5.3.2 Requirements for road use and driving

5.3.2.1 General

Filters suitable for road use and driving shall be of categories 0, 1, 2 or 3 and shall additionally meet the following two requirements.

a) *Spectral transmittance*. For wavelengths between 475 nm and 650 nm, the spectral transmittance of filters suitable for road use and driving shall be not less than $0{,}2\tau_V$.

b) *Detection of signal lights*. The relative visual attenuation quotient Q of filters of categories 0, 1, 2 and 3 suitable for road use and driving shall be not less than 0,80 for red signal light, not less than 0,60 for yellow, green and blue signal lights. The relative spectral distribution of radiation emitted by incandescent signal lights shall apply in accordance with ISO 12311:2013, 7.8.

5.3.2.2 Driving in twilight or at night

Sunglass filters with a luminous transmittance of less than 75 % shall not be used for road use and driving in twilight or at night. In the case of photochromic sunglass filters, this requirement applies when tested in accordance with ISO 12311:2013, 7.11."

Page 8, 7.6

Insert an additional sentence before the note as follows:

"If this requirement is met, testing according to 7.1 (minimum robustness) is not necessary."

Page 10, 11.2

Delete the existing text and replace by the following:

"Very dark special purpose sunglasses (filter category 4) having a pupillary distance greater than 54 mm shall provide temporal shielding such that the ultraviolet transmittances of the sunglass filter, frame and side comply with the requirements for category 4 filters in Table 1 in the area PPTT shown in Figure 1, defined as follows:

a) in the line of intersection of the frontal plane (tangent to the apex of the cornea) with the inner surface of the sunglass structure, to elevations of 11 mm above and below the horizontal plane through the reference point; and

b) in a vertical line in the inner structure of the sunglass that is 30° back from the frontal plane and relative to the apex of the cornea, and to elevations of 6 mm above and below the horizontal plane through the reference point.

NOTE Children benefit from sunglasses with temporal protection but, in absence of data, no dimensions are published in this edition of this standard."

Page 10, Figure 1

Delete the existing title of Figure 1 and replace by the following:

"**Figure 1 — Required eye coverage for category 4 sunglasses having pupillary distance greater than 54 mm**"

Page 11, 12.1

Delete item g) and replace by the following:

"g) Restrictions of use, which shall include at least the following:

- not for direct observation of the sun;
- not for protection against artificial light sources, e.g. solaria;
- not for use as eye protection against mechanical impact hazards (for products not satisfying the requirements of 7.3 or 7.6);
- any other restrictions deemed appropriate to be communicated by the manufacturer, e.g. increased or decreased transmittance of photochromic glasses due to high or low temperatures or to low light conditions."

ICS 13.340.20

Price based on 2 pages