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Eye and face protection — Sunglasses and related eyewear —

Part 2: Filters for direct observation of the sun

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

Partie 2: Filtres pour l'observation directe du soleil

Reference number
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Contents

Page

Foreword ... **iv**

1 Scope ... **1**

2 Normative references ... **1**

3 Terms and definitions ... **1**

4 Requirements and associated test methods ... **1**

4.1 Transmittance ... 1

4.1.1 General ... 1

4.1.2 Uniformity of luminous transmittance ... 2

4.2 Material and surface quality ... 2

4.2.1 Requirements ... 2

4.2.2 Test method ... 2

4.3 Mounting ... 2

4.3.1 General ... 2

4.3.2 Dimensions ... 2

4.3.3 Material quality ... 3

5 Labelling ... **3**

Annex A (informative) **Use of filters for direct observation of the sun** ... **4**

Annex B (informative) **Solar eclipse eye safety: User's guide[23]** ... **6**

Bibliography ... **10**

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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 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, *Eye and face protection*.

ISO 12312 consists of the following parts, under the general title *Eye and face protection — Sunglasses and related eyewear*:

— *Part 1: Sunglasses for general use*

— *Part 2: Filters for direct observation of the sun*

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Eye and face protection — Sunglasses and related eyewear —

Part 2: Filters for direct observation of the sun

1 Scope

This part of ISO 12312 applies to all afocal (plano power) products intended for direct observation of the sun, such as solar eclipse viewing.

Information on the use of filters for direct observation of the sun is given in Annex A and Annex B.

This part of ISO 12312 does not apply to the following:

a) afocal (plano power) sunglasses and clip-ons for general use intended for protection against solar radiation;

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

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

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

e) prescription sunglass lenses.

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.

ISO 12311:2013, *Personal protective equipment — Test methods for sunglasses and related eyewear*

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

3 Terms and definitions

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

4 Requirements and associated test methods

4.1 Transmittance

4.1.1 General

The transmittance requirements of filters for the direct observation of the sun are given in Table 1. Transmittance values shall be measured or calculated at the boxed centre of the filter for normal incidence, as described in ISO 12311:2013, 7.1.1, 7.1.2, 7.3.2, 7.3.3, and 7.5.

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