



Eye and face protection — Sunglasses and related eyewear

Part 2: Filters for direct observation of the sun



AS ISO 12312.2:2020

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Australian Competition and Consumer Commission
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Preface

This Standard was prepared by the Australian Members of the Joint Standards Australia/Standards New Zealand Committee SF-006, Eye and Face Protection.

After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than an Australian/New Zealand Standard.

The objective of this Standard is to apply to all afocal (plano power) products intended for direct observation of the sun, such as solar eclipse viewing.

This Standard 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 solariums.
- (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.

This Standard is identical with, and has been reproduced from, ISO 12312-2:2015, *Eye and face protection — Sunglasses and related eyewear — Part 2: Filters for direct observation of the sun*.

As this document has been reproduced from an International Standard, the following applies:

- (i) In the source text “this part of ISO 12312” should read “this Australian Standard”.
- (ii) A full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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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 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*

Australian Standard®

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 solariums;
- 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.