



Eye and face protection—Sunglasses and fashion spectacles

Part 2: Test methods (ISO 12311:2013, MOD)



This Australian Standard® was prepared by Committee CS-053, Sunglasses. It was approved on behalf of the Council of Standards Australia on 21 July 2016. This Standard was published on 30 September 2016.

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 - Australian Radiation Protection and Nuclear Safety Agency
 - Cancer Society of New Zealand
 - Consumer and Business Services South Australia
 - Consumers Federation of Australia
 - New Zealand Association of Optometrists
 - New Zealand Optical Wholesalers Association
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 - Queensland University of Technology
 - Royal Australian and New Zealand College of Ophthalmologists
 - Sunglass Association of Australia
 - The Lions Eye Institute
 - University of Auckland, New Zealand
 - University of New South Wales
-

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Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard®

Eye and face protection—Sunglasses and fashion spectacles

Part 2: Test methods (ISO 12311:2013, MOD)

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CS-053, Sunglasses and fashion spectacles, to supersede, in part, AS/NZS 1067:2003, *Sunglasses and fashion spectacles*.

A1 | *Amendment No. 1 to this Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee CS-053, Sunglasses. As a consequence of Amendment No. 1, which is published as an Australian-only amendment, the designation of this Standard has been changed from AS/NZS 1067.2:2016 to AS 1067.2:2016.*

The objective of this Standard is to specify test methods for sunglasses and fashion spectacles (including replacement filters) in accordance with AS/NZS 1067.1:2016.

A1 | This Standard is an adoption with national modifications and has been reproduced from ISO 12311:2013 *Personal protective equipment—Test methods for sunglasses and related eyewear*. The modifications are additional requirements and are set out in Appendix ZZ, which has been added at the end of the source document.

Appendix ZZ lists variations to take account of differences between AS/NZS 1067.1:2016, *Eye and face protection—Sunglasses and fashion spectacles, Part 1: Requirements* and ISO 12312-1:2013, *Eye and face protection—Sunglasses and related eyewear—Part 1: Sunglasses for general use* and Appendix ZZ of AS/NZS 1337.0, *Personal eye protection, Part 0: Eye and face protection—Vocabulary (ISO 4007:2012, MOD)*.

As this Standard is reproduced from an International Standard, the following applies:

- A1 |
- (a) In the source text ‘this International Standard’ should read ‘this Australian Standard’.
 - (b) A full point substitutes for a comma when referring to a decimal marker.

Only normative references that have been adopted as Australian or Australian/New Zealand Standards have been listed.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annex to which they apply. A ‘normative’ annex is an integral part of a Standard, whereas an ‘informative’ 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. www.iso.org/directives

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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

The committee responsible for this document is ISO/TC 94, *Personal safety — Protective clothing and equipment*, Subcommittee SC 6, *Eye and face protection*.

This corrected version of ISO 12311:2013 incorporates the following correction:

- the second paragraph of 9.7.3.1 has been added.

AUSTRALIAN STANDARD

Eye and face protection—Sunglasses and fashion spectacles**Part 2:
Test methods (ISO 12311:2013, MOD)****1 Scope**

This International Standard specifies reference test methods for determining the properties of sunglasses given in ISO 12312 (all parts). It is applicable to all sunglasses and related eyewear.

Other test methods may be used if proven to be equivalent.

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 37, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties*

ISO 48, *Rubber, vulcanized or thermoplastic — Determination of hardness (hardness between 10 IRHD and 100 IRHD)*

ISO 1042:1998, *Laboratory glassware — One-mark volumetric flasks*

ISO 3696:1987, *Water for analytical laboratory use — Specification and test methods*

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

ISO 8596, *Ophthalmic optics — Visual acuity testing — Standard optotype and its presentation*

ISO 11664-1, *Colorimetry — Part 1: CIE standard colorimetric observers*

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/IEC Guide 98-3:2008, *Uncertainty of measurement — Part 3: Guide to the expression of uncertainty in measurement (GUM:1995)*

3 Terms and definitions

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

4 Prerequisites

The following parameters shall be specified prior to testing [see ISO 12312 (all parts)]:

- the number of specimens;
- specimen preparation;
- any conditioning prior to testing;
- characteristics to be assessed subjectively (inappropriate);