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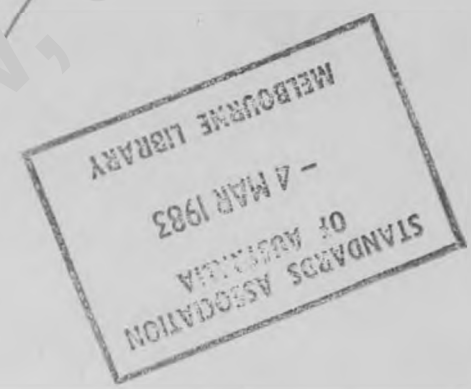
Australian Standard 1067—1983

SUNGLASSES AND FASHION SPECTACLES— NON-PRESCRIPTION TYPES



STANDARDS ASSOCIATION OF AUSTRALIA
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This Australian standard was prepared by Committee CS/53, Sunglasses. It was approved on behalf of the Council of the Standards Association of Australia on 11 January 1983 and published on 7 March 1983.

The following interests were represented on the committee responsible for the preparation of this standard:

Attorney-General's Department
Australian Chamber of Commerce
Australian Consumers Association
Australian Federation of Consumer Organizations Inc.
Australian Optometrical Association
Australian Retailers Association
Confederation of Australian Industry
Department of Defence
Guild of Dispensing Opticians
National Measurement Laboratory, CSIRO
Optical Distributors and Manufacturers Association of Australia
Opticians and Optometrists Association of New South Wales
Queensland Institute of Technology
Royal Australian College of Ophthalmologists
Standards Association of New Zealand
Sunglass Association of Australia
University of Melbourne
University of New South Wales

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AUSTRALIAN STANDARD

SUNGLASSES AND FASHION SPECTACLES—NON-PRESCRIPTION TYPES

AS 1067—1983

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PREFACE

This edition of this standard was prepared by the Association's Committee on Sunglasses, under the direction of the Consumer Standards Advisory Committee and in response to a request from Canberra Consumers Incorporated, to supersede AS 1067—1971.

The scope of the standard has been widened to include requirements for frames as well as lenses. Emphasis has been placed on simplifying test methods without compromising accuracy. The standard contains specific requirements for refractive properties and optical qualities of lenses, mechanical strength of frames and the assessment of robustness and lens retention.

The committee decided also to include specific requirements for fashion spectacles with tinted lenses, i.e. items of fashion eye-wear which do not absorb sufficient light to provide protection for the eyes against sunglare.

The committee considered it important that, where protection of the eyes against sunglare is required, the consumer would be able to select the correct type of sunglasses, i.e. either general-purpose type or specific-purpose type, depending on their intended use.

Provision has therefore been made in this standard for the appropriate marking and labelling of sunglasses and fashion spectacles, to provide consumers with the necessary information. The committee advocates that the terms 'general-purpose sunglasses', 'special-purpose sunglasses' and 'fashion spectacles' be used only in articles that comply with the appropriate requirements described in this standard.

It should be noted that this standard could apply to prescription type sunglasses provided that they comply with the transmission requirements appropriate to the type of spectacles.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
SUNGLASSES AND FASHION SPECTACLES—NON-PRESCRIPTION TYPES

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard specifies requirements for sunglasses and fashion spectacles having lenses of nominally zero refractive power and intended to provide protection against sunglare from natural sunlight, including sunglasses with conventional frames, sunglasses of the one-piece or visor type, and clip-on sunglasses.

Sunglasses labelled as toys and not complying with Clause 2.4 are not covered by this standard.

Specific requirements for sunglasses that are to provide protection against natural sunlight under particularly demanding circumstances and those for fashion spectacles worn for their appearance rather than eye protection are also specified.

NOTES:

1. The sunglasses described in this standard are not intended to provide protection against sources of radiation other than natural sunlight.
2. This standard does not apply to tinted glasses identified as night-driving glasses. The wearing of sunglasses or fashion spectacles of any kind for night driving is strongly discouraged.
3. Sunglasses and fashion spectacles covered by this standard are not necessarily suitable for eye protection in industrial environments. Eye protectors suitable for industrial application must also comply with AS 1337.
4. Requirements for filters for eye protectors designed for protection against sources of radiation other than natural sunlight are specified in AS 1338.
5. Requirements for eye protectors for automotive purposes are specified in AS 1609.

1.2 APPLICATION. Sunglasses and fashion spectacles and their congruent parts shall comply with the following requirements of this standard as appropriate:

(a) Lenses ..... Section 2.
(b) Construction ..... Section 3.
(c) Marking ..... Section 4.

1.3 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

AS 1199 Sampling Procedures and Tables for Inspection by Attributes
AS 1337 Eye Protectors for Industrial Applications
AS 1338 Filters for Eye Protectors
AS 1599 Guide to AS 1199, Sampling Procedures and Tables for Inspection by Attributes
AS 1609 Eye Protectors for Motor Cyclists and Racing Car Drivers

1.4 DEFINITIONS. For the purpose of this standard, the following definitions apply:

1.4.1 Shall and should—the word 'shall' is to be understood as mandatory, and the word 'should' as non-mandatory, advisory or recommended.

1.4.2 Types of sunglasses and fashion spectacles.

1.4.2.1 *Fashion spectacles*—glasses that do not substantially reduce sunglare and are worn for their fashion properties only.

1.4.2.2 *General-purpose sunglasses*—sunglasses intended to reduce sunglare in ordinary circumstances (which include driving of motor vehicles in daylight).

1.4.2.3 *Specific-purpose sunglasses*—sunglasses intended to reduce sunglare in those occupations or environmental conditions where general-purpose sunglasses may prove inadequate or unsuitable. These conditions include circumstances where glare is very intense, such as on snowfields or in flight above cloud where because of high altitude there is less atmospheric absorption of ultraviolet radiation, or where the wearer incurs regular or long-term exposure to glare.

Although made to fulfil more stringent requirements for specific purposes, they also are suitable for general-purpose wear.

1.4.3 Types of lenses.

1.4.3.1 *Uniformly tinted sunglass lens*—a lens in which the luminous transmittance does not change over the lens.

1.4.3.2 *Gradient-density sunglass lens*—a lens in which the luminous transmittance changes progressively in the vertical meridian over some or all of the lens.

1.4.3.3 *Polarizing sunglass lens*—a lens made of or including a linear polarizer.

1.4.3.4 *Photochromic lens*—a lens which changes its colour and/or luminous transmittance upon exposure to a change of visible radiation or to ultraviolet radiation.

NOTE: Some lenses have a combination of the above properties.

1.4.4 Transmittance.

1.4.4.1 *Spectral transmittance*—ratio of transmitted radiant flux to the incident radiant flux for given wavelengths of monochromatic radiation.

1.4.4.2 *Luminous transmittance*—the ratio of the transmitted luminous flux to the incident luminous flux. Luminous transmittance is usually specified with respect to one of the internationally accepted standard illuminants.

1.4.4.3 *Luminous density*—the logarithm to the base 10 of the reciprocal of the luminous transmittance.

NOTE: Radiant flux is power emitted, transferred or received in the form of radiation. Luminous flux is a quantity derived from radiant flux by weighting the radiation by the spectral sensitivity of the eye.