Australian Standard®

EYE PROTECTORS FOR MOTOR CYCLISTS AND RACING CAR DRIVERS

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The following scientific, industrial and governmental organizations and departments were officially represented on the committee entrusted with the preparation of this standard:

Australian Chamber of Commerce
Australian Optometrical Association
Australian Road Research Board
Autocycle Council of Australia
Bureau of Consumer Affairs, Western Australia
Confederation of Australian Industry
Confederation of Australian Motor Sport
Consumer Affairs Bureau, Australian Capital Territory
Consumer Affairs Bureau, Queensland
Consumer Affairs Council, Tasmania
Department of Business and Consumer Affairs
Department of Consumer Affairs, New South Wales
Department of Community Development, Northern Territory
Department of Motor Transport, New South Wales
Department of Public and Consumer Affairs, South Australia
Department of Transport
Health Commission of New South Wales
New South Wales Police Department
Queensland Police Department
Royal Australasian College of Opthalmologists
Road Traffic Authority, Western Australia
Trade Practices Commission
Victoria Police
Victorian College of Optometry, University of Melbourne

This standard, prepared by Committee AU/13, Automotive Eye Protection, was approved on behalf of the Council of the Standards Association of Australia on 23 June 1981, and was published on 7 September 1981.

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AS 1609—1981

Australian Standard®

EYE PROTECTORS FOR MOTOR CYCLISTS AND RACING CAR DRIVERS

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PREFACE

This edition of this standard was prepared by the Association's Committee on Automotive Eye Protection. It covers eye protectors designed to provide protection for the eyes of motor cyclists and racing car drivers.

Requirements for material, optical qualities and mechanical strength are set out in the standard and it includes appendices prescribing appropriate test methods.

This edition of the standard includes technical and editorial amendments identified as necessary during the application of the 1974 edition.

Following the recommendations of a number of organizations, the committee decided to allow limited use of tinted lenses, provided that these lenses comply with the requirements set out in this standard and the coloration limits prescribed in AS 1067*. These eye protectors are intended to be restricted to daytime use only.

NOTES:

1. Although only limited technical data is available, the wearing of sunglasses, photochromic lenses and prescription spectacles worn as the sole protection for the eyes, is *not* recommended. Such eyewear is unlikely to comply with the mechanical strength required for protection against impacting particles.
2. The University of New South Wales and the Australian Road Research Board, in conjunction with the Department of Motor Transport in New South Wales, are currently conducting feasibility studies into matters concerning tinted visors. scratched visors and the habitual use of eye protectors by motor cyclists and will make their findings public when the study is finished.

During the preparation of this standard cognizance was taken of the work under taken by ISO/TC 94/SC 6, Personal Eye Protectors.*

The material quality of lenses and the optical requirements maintain uniformity where appropriate with—

AS 1067 Sunglass Lenses†

AS 1337 Eye Protectors for Industrial Applications

This standard requires reference to the following standards:

AS 1067 Sunglass Lenses†

AS 1199 Sampling Procedures and Tables for Inspection by Attributes

AS 1399 Guide to AS 1199, Sampling Procedures and Tables for Inspection by Attributes

AS 1680 Code of Practice for Interior Lighting and the Visual Environment

AS 1698 Protective Helmets for Vehicle Users

AS 2961 Typeface Nomenclature and Classification

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*ISO = International Organization for Standardization.

†As revised.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
EYE PROTECTORS FOR MOTOR CYCLISTS AND RACING CAR DRIVERS

SECTION 1. SCOPE, APPLICATION AND DEFINITIONS

1.1 SCOPE. This standard specifies requirements for eye protectors for motor cyclists and racing car drivers. It deals with materials, construction, attach ment, optical properties, testing, labelling and marking.

The standard incorporates the basic requirements for eye protectors capable of maintaining visibility and providing protection for the eyes of motor cyclists and racing car drivers.

1.2 APPLICATION. Eye protectors for motor cyclists and racing car drivers shall comply with the appropriate requirements of Sections 2, 3 and 4.

Lenses for eye protectors shall comply with Section 5.

1.3 DEFINITIONS. For the purposes of this standard, the following definitions apply:

1.3.1 Eye protector—a device which includes a lens or lenses worn in front of the eyes to provide protection for the eyes against dust, rain, wind and the impact of particles and insects.

1.3.2 Visor—an eye protector supported in front of the face to provide protection for the eyes and part of the face.

1.3.3 Integral visor—a built-in eye protector forming a single congruous whole with a helmet.

1.3.4 Eyeshield—a transparent visor supported in front of the face to shield the eyes.

1.3.5 Goggles—an eye protector fitting the contour of the face and held in position by an adjustable headband.

1.3.6 Lens—the transparent component of the eye protector through which the wearer sees.

NOTE: In this standard the term 'lens' is not restricted to its optical sense.

1.3.7 Gradient-density lens—a lens in which the luminous transmittance changes progressively over the lens.

1.3.8 Safety spectacles—an eye protector, fitting the contour of the face and held in position by the side arms, providing frontal protection for the eyes only.

1.3.9 Luminous transmittance—the ratio of the luminous flux transmitted by the lens to the incident luminous flux.

1.3.10 Refractive power—the property of a lens to diverge or converge rays of light, expressed as the reciprocal of the focal length in metres.

NOTES:

1. The unit of measurement for refractive power is reciprocal metre (m^{-1}).
2. The former unit of measurement, i.e. dioptre, is extant in ophthalmology and optometry.
3. The power of a divergent lens is given a negative sign.

1.3.11 Prismatic power—the property of a lens to displace the image of an object expressed as 100 times the ratio of the apparent displacement of the object to the distance of the object from the lens.

NOTES:

1. Prismatic power is a dimensionless quantity.
2. The former unit of measurement of prismatic power, i.e. prism dioptre, is numerically equal and is extant in ophthalmology and optometry.

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