

Eye and face protectors



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Preface

This is the ninth edition of CSA Z94.3, *Eye and face protectors*. It supersedes the previous editions, published in 2015, 2007, 2002, 1999, 1992, 1988, 1982, and 1969.

Major changes to this edition include the following:

- ignition resistance requirements for plano eyewear have been clarified and refined (Clause [6.2](#));
- the flammability requirements and testing were deleted (Clause [6.2](#));
- revised automatic darkening welding filter requirements (Clause [6.5.4](#));
- added guidance for aftermarket components or accessories (Clause [6.7](#));
- revised the minimum frontal coverage for plano eyewear (Clause [6.8](#));
- revised side protection requirements for plano eyewear (Clause [6.9](#));
- added cover lenses and cover plates for Class 2 protectors (Clause [8.7](#));
- revised speed of steel balls for impact resistance testing (Clause [12.2.1.3](#));
- revised the procedure for angular dependence of luminous transmittance test for automatic welding filter lenses (Clause [12.15.3](#));
- revised marking and user information for plano eyewear (Clause [13.1](#));
- revised markings for prescription protective eyewear (Clause [15.6](#));
- added design and testing requirements for photochromic and polarized lenses for eyewear providing sun protection (Clauses [16.2.5](#), [16.2.6](#), and [16.3.5](#));
- increased the number of prescription lens configurations presumed compliant (Table [5](#));
- added a figure with measurement locations to Figure [9](#); and
- updated the references (Clause [2](#)) and definitions (Clause [3](#)).

As introduced in the 2002 edition, the basic performance requirements apply to all protectors covered in this Standard, whereas the test procedures specified differ for prescription eyewear and non-prescription eyewear.

As in previous editions, for non-prescription protectors, specified testing procedures are to be conducted using the whole assembled product (not individual components). In contrast, for Class 1 protectors having prescription lenses, performance criteria and test procedures are applied to lenses and frames separately. This Standard sets out requirements for the manufacture of these protectors (e.g., quality assurance). In addition, special allowance has been made in this edition for the role of ophthalmic professionals in adjusting and modifying spectacles to fit the individual wearer. When taken together, these requirements provide a basis for conformity assessment of protective spectacles with prescription lenses.

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

CSA Group acknowledges that the development of this Standard was made possible, in part, by the financial support of the Canadian Association of Administrators of Labour Law – Occupational Safety and Health (CAALL-OSH), including Provincial and Territorial Governments, as well as the Government of Canada. CSA Group is solely responsible for the content of this Standard, and CSA Group and the funding bodies disclaim any liability in connection with the use of the information contained herein.

This Standard was prepared by the Technical Committee on Eye and Face Protection, under the jurisdiction of the Strategic Steering Committee on Occupational Health and Safety, and has been formally approved by the Technical Committee.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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 - c) *wording of the proposed change; and*
 - d) *rationale for the change.*

CSA Z94.3:20

Eye and face protectors

1 Scope

1.1

This Standard applies to eye and face protectors used in all occupational and educational operations or processes involving hazards to the eyes or face. Typical hazards include flying objects and particles, splashing liquids, molten metal, and ultraviolet, visible, and infrared radiation, but do not include X-rays, gamma rays, high-energy particulate radiation, radioactive materials, or masers.

Note: *The guidelines for protection outlined in Table A.1 should be followed when similar potentially hazardous activities are conducted in the home, at leisure, and in recreational environments. For certain sports activities, other Standards should be consulted (e.g., CSA Z262.2).*

1.2

This Standard sets minimum performance requirements in the tests described herein but does not cover factors of design such as comfort, service life, or appearance.

Note: *The conformance of protectors with these requirements does not imply equality of performance, nor should it be interpreted to mean that protectors are capable of affording greater protection than is specified in this Standard.*

1.3

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

2 Reference publications

This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below.

CSA Group

Z94.1-15

Industrial protective headwear — Performance, selection, care, and use