

ANSI Z80.5-2004

AMERICAN NATIONAL STANDARD



*for Ophthalmics -
Requirements for Ophthalmic Frames*

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Z80.5-2004
Revision of
ANSI Z80.5-1997

American National Standard
for Ophthalmics –

Requirements for Ophthalmic Frames

Secretariat
Information Technology Industry Council

Approved January 27, 2004
American National Standards Institute, Inc.

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Foreword (This foreword is not part of American National Standard ANSI Z80.5-2004.)

The Z80 Standards Committee for Ophthalmic Lenses was organized in 1956, and the committee's initial standard was issued in 1964. At the beginning of 1970, the Z80 Standards Committee was reorganized, with the Optical Society of America serving as secretariat. In 1972, the committee was authorized to broaden its scope from "prescription glass ophthalmic lenses" to prescription ophthalmic lenses." Subsequently, the scope of the committee was further broadened to "ophthalmic standards."

In 1970, the Z80 Committee Ophthalmic Lenses, appointed a Subcommittee on Ophthalmic Frames to draft standard requirements for dress ophthalmic frames.

The 2004 revision provides tighter tolerances for eye size and shape and also updated the references to ISO standards to the newest versions. The 1997 revision incorporated the boxing system of frame measurements, which has been in use in the United States since 1962, as well as the Optical Industry Associations-(OMA) standard requirements for marking and stamping gold and gold-filled frames. It also dealt with flammability and impact resistance of frames.

In 1982, the Optical Laboratories Association assumed the responsibilities of the Secretariat; and in 1985, the Z80 Committee became an Accredited Standards Committee. The Scope of the Z80 Committee is for the establishment of standards that shall apply to ophthalmic lenses and to equipment, instruments and to processes used in the final fabrication level which affect their performance; to ophthalmic frames, sunglasses and fashion eyewear; to contact devices in addition to contact lenses; and to optical instrumentation used in ophthalmic procedure and vision evaluation.

Suggestions for improvement of this standard will be welcome. They should be sent to the Optical Laboratories Association, P.O. Box 2100, Merrifield, VA 22116-2000.

This standard was processed and approved for submittal to ANSI by the Accredited Standards Committee on Ophthalmic Standards Z80. Committee approval of this standard does not necessarily imply that all committee members voted for its approval. At the time it approved this standard, the Z80 Committee had the following members:

Thomas C. White, M.D., Chairman
Robert Rosenberg, O.D., Secretary

<i>Organization Represented</i>	<i>Name of Representative</i>
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American Academy of Ophthalmology	Thomas C. White Gerhard Cibis (Alt.) Keith Baratz (Alt.) Paul F. Vinger (Alt.)
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<i>Organization Represented</i>	<i>Name of Representative</i>
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Contact Lens Manufacturers Association.....	Quido Cappelli
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Optical Society of America	Richard A. Phillips
Opticians Association of America.....	April James
Prevent Blindness	Jeff Todd
Sunglass Association of America	Thomas Loomis Kenneth L. Frederick (Alt.) James Pritts (Alt.) Rick Van Arman (Alt.)
US Leader to ISO TC 172/SC7	Charles E. Campbell
Veterans Administration	John Townsend Charles R. Atkin (Alt.)
Vision Council of America	Kenneth O. Wood Steve Drake (Alt.) Neil Roche (Alt.) Rick Whitney (Alt.)

The Z80 Subcommittee on Frames, which developed this standard, had the following members:

Arthur Newman, O.D., Chairman	Kenneth L. Frederick Tom Loomis Emeric Mileti Julie Milette Michelle Princi Dan Torgersen Ken Wood
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American National Standard for Ophthalmics –

Requirements for Ophthalmic Frames

1 Scope and purpose

1.1 Scope

This standard shall apply to the manufacture of all frames intended for street wear as ophthalmic eyewear with prescription lenses, excluding specialty and novelty products such as lorgnettes and monacles. Specifically excluded are products designed to be occupational eyewear as defined in *American National Standard Practice for Occupational and Educational Eye and Face Protection*, ANSI Z87.1-2003, and frames for non-prescription sunglasses, and fashion eyewear as defined in *American National Standard for Ophthalmics - Non-prescription Sunglasses and Fashion Eyewear - Requirements*, ANSI Z80.3-2001, and sport frames as defined in *Specification for Eye Protectors for Use by Players of Racket Sports*, ANSI/ASTM F803-2003.

1.2 Purpose

Standards of quality and uniformity are established for all ophthalmic frames, except as noted above. Nothing in this standard restricts the introduction of changes arising from future improvements in materials or technology which meet or exceed the requirements of this standard.

2 Normative references

The following standards contain provisions which, though referenced in this text, constitute provisions of this American National Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to investigate the possibility of

applying the most recent editions of the standards indicated below.

ANSI B1.1-2003, *Unified Inch Screw Threads (UN and UNR Thread Form)*

ANSI Z80.1-1999, *Ophthalmics - Prescription Ophthalmic Lenses Recommendations*

ANSI Z87.1-2003, *Practice for Occupational and Educational Eye and Face Protection*

ANSI/ASTM D635-1998, *Test for Rate of Burning and, or Extent and Time of Burning of Sel. Supporting Plastics in a Horizontal Position*

ISO 3624-2002, *Ophthalmic optics - Spectacle frames - Measuring system and terminology*

Bureau of Customs Ruling, *Marking of Imported Eyeglass and Sunglass Frames*, 19 Code of Federal Regulations, Part 134.

3 Glossary of terms and definitions¹

angle, cross: See angle, temple fold.

angle, groove: The included angle formed by the V-shape of an eyewire groove (see figure 1).

¹ Names and drawings of frame parts are included in figures 8-15, but not included in terms.