

# American National Standard

*for Ophthalmics –  
Ophthalmic Optics –  
Specifications for Single-Vision  
Ready-to-Wear Near-Vision  
Spectacles*

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**ANSI<sup>®</sup>**  
**Z80.31-2012**

American National Standard  
for Ophthalmics –

**Ophthalmic Optics –  
Specifications for Single-Vision  
Ready-to-Wear Near-Vision Spectacles**

Secretariat  
**The Vision Council**

Approved July 25, 2012

**American National Standards Institute, Inc.**

# American National Standard

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## *Developed by*

The Accredited Committee Z80 for Ophthalmic Standards

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**Foreword** (This foreword is not part of American National Standard ANSI Z80.31-2012.)

The purchasers and users of single-vision ready-to-wear near-vision spectacles need to be assured of certain minimum levels of performance and quality in these products. These are either implicit expectations in the product performance, or safety. The purchaser of the product does not ordinarily have the means to properly assess these characteristics. In order to accomplish these goals, it is necessary to establish commonly accepted definitions, equations, sources, and methodology so that manufacturers can produce products to meet the standard.

This American National Standard specifies impact-resistant characteristics; cosmetic, refractive properties of lenses; and the flammability of frames and lenses. Cosmetic, refractive, and frame properties specified herein are intended as guidelines, and therefore they are subject to revision since there is a need to study further the validity of these property specifications as related to actual normal use requirements.

The Z80.31 working group is under the subcommittee SC2 of Z80, which also reviews Z80.3, Nonprescription Sunglass and Fashion Eyewear Requirements, and was organized in December 1970 and had its first meeting on January 7, 1971. The current Chair of the committee is Kenneth L. Frederick, Technical Director of the Sunglass Association of America. He has been chair since 2004. The committee usually meets formally twice per calendar year, and the members review material by email, phone, or fax throughout the year. Working groups may be formed to investigate specific projects, and a working group for single-vision ready-to-wear near-vision spectacles was formed in 2010 and developed this standard, Z80.31-2012.

This standard contains one annex, which is informative and is not part of this standard. Suggestions for improvement of this standard will be welcome. They should be sent to the Vision Council, 225 Reinekers Lane Suite 700, Alexandria, VA 22314.

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, Chairperson  
Quido Cappelli, Vice-Chairperson  
Dr. Robert Rosenberg, Secretary  
Jeff Endres, Secretariat  
Rick Van Arnam, Legal Counsel

<i>Organization Represented</i>	<i>Name of Representative</i>
Advance Medical Technologies Association .....	Paul Ludington
American Academy of Ophthalmology .....	Dr. Thomas White
American Academy of Optometry .....	Dr. David Loshin
American Ceramic Society .....	Lyle Rubin
American Glaucoma Society .....	Dr. Steven Gedde
American Optometric Association .....	Dr. Karl Citek
American Society of Cataract and Refractive Ophthalmology....	Dr. Stephen Klyce
Association for Research in Vision & Ophthalmology (ARVO)...	Dr. Jan Bergmanson
Contact Lens Institute .....	Stan Rogaski
Contact Lens Manufacturers Association .....	Quido Cappelli
Department of Veterans Affairs .....	Dr. John Townsend
Federated Cornea Societies/ASCRS .....	Dr. Michael Belin

<i>Organization Represented</i>	<i>Name of Representative</i>
Food & Drug Administration CDRH/ Division of Federal Agencies .....	Don Calogero
National Association of Optometrists & Opticians .....	Nick Mileti
Optical Laboratories Association .....	Richard Tinson
Opticians Association of America .....	Tom Hicks
Sunglass Association of America .....	Kenneth L. Frederick
The Vision Council .....	Jeff Endres
U.S. ISO TC 172/SC7 .....	Jeff Endres

Subcommittee SC2 on Nonprescription Sunglasses and Fashion Eyewear, which approved this standard, had the following members:

Kenneth L. Frederick, Chairperson  
(Sunglass Association of America)

<i>Organization Represented</i>	<i>Name of Representative</i>
American Academy of Ophthalmology .....	Dr. Thomas White
American Ceramic Society .....	Lyle Rubin
American Optometric Association .....	Herbert Hoover (Alt.) Dr. Karl Citek
ARVO .....	Dr. Robert Rosenberg (Alt.)
COLTS Laboratories .....	Dr. Jan Bergmanson
FHWA .....	Greg Williams
ICS Laboratories, Inc. ....	Carl Anderson
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Optical Laboratories Association .....	Doug Pelkey (Alt.) Larry Somrack
Sunglass Association of America .....	Dan Torgersen Virginia Lesher Tom Hicks (Alt.)
The Vision Council .....	Kenneth L. Frederick Scott MacGuffie (Alt.) Frank Maglietta (Alt.) Rick Van Arnam (Alt.)
U.S. Army Center for Health Promotion .....	Jeff Endres
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	Michael Patterson
	Luis Muniz

Consulting Medical Physicist

Dr. David Sliney

The Working Group for Single-Vision Ready-to-Wear Near-Vision Spectacles, which developed this standard, had the following members:

Dr. Karl Citek, Chairperson  
Dr. Jan Bergmanson  
Kenneth L. Frederick  
Dan Torgersen  
Dick Whitney



American National Standard  
for Ophthalmics –

# Ophthalmic Optics – Specifications for Single-Vision Ready-to-Wear Near-Vision Spectacles

## 1 Scope

This Standard specifies the minimum requirements for complete single-vision ready-to-wear near-vision spectacles with positive power, without regard to luminous transmittance, available directly to the public without the prescription of a licensed professional.

### 1.1 Purpose

The purpose of this standard is to establish requirements for ready-to-wear near-vision spectacles, commonly called “readers”. They are not designed to be industrial safety eyewear as defined in ANSI Z87.1-2010, sports eyewear as defined in ASTM F803, nor prescription eyewear as defined in ANSI Z80.1-2010.

## 2 Normative references

The following standards contain provisions which, through reference 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 Z80.1-2010, *Recommendations for prescription ophthalmic lenses*<sup>1</sup>

ANSI Z80.17-2008, *Focimeters*<sup>1</sup>

ANSI Z80.5-2010, *Requirements for ophthalmic frames*<sup>1</sup>

ANSI Z87.1-2010, *Practice for occupational and educational eye and face protection*<sup>1</sup>

ASTM D412-2002, *Test methods for rubber properties in tension*<sup>2</sup>

ASTM F803-2003, *Eye protectors for use by players of selected sports*<sup>2</sup>

ASTM D2240-2003, *Standard test method for rubber property – Durometer hardness*<sup>2</sup>

Title 21, Code of Federal Regulations, Section 801.410<sup>3</sup>

Title 19, United States Code, Section 1304<sup>3</sup>

Title 19, Code of Federal Regulations, Section 134<sup>3</sup>

<sup>1</sup> For electronic copies of some standards, visit ANSI's Electronic Standards Store (ESS) at [www.ansi.org](http://www.ansi.org). For printed versions of all standards, contact ANSI's Customer Service Department at 212-642-4900.

<sup>2</sup> Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428.

<sup>3</sup> Available from the Government Printing Office, P.O. Box 371954, Pittsburgh, PA 15250-7954.