

American National Standard

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



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ANSI®
Z80.31-2017
Revision of
ANSI Z80.31-2012

American National Standard
for Ophthalmics –

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

Secretariat
The Vision Council

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American National Standard

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Foreword (This foreword is not part of American National Standard ANSI Z80.31-2017.)

Summary of Changes to ANSI Z80.31 for 2017

This 2017 revision represents the most current consensus of experts in this field. The changes from the 2012 standard are the result of a thorough study by the ANSI Z80.31 committee of the relevance and applicability of its contents.

This revision expands the applicability of this standard to readers with segments and power-variation readers, such as those with progressive-power lenses, as well as readers with tints and those with plano power portions. Refractive and prismatic power properties will need to comply with requirements in ANSI Z80.1 and Z80.3, as applicable. Transmittance properties will need to comply with requirements in ANSI Z80.3, as applicable.

Finally, the procedure for assessment of frame flammability is amended and new requirements for frame durability, such as corrosion, material safety, and deformation, which already exist in other standards, are added.

Summary of original version of ANSI Z80.31

The purchasers and users of 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.

Background

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 Dr. Karl Citek, O.D., Ph.D. 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 ready-to-wear near-vision spectacles was formed and developed this standard, Z80.31-2017.

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, ASC Z80 Committee had the following members:

Thomas C. White, M.D., Chairman
 Neil Roche, Vice-Chairman
 William J. Benjamin, O.D., Secretary
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The Subcommittee on Nonprescription Eyewear, which developed this standard, received input and contributions for this revision from the following members:

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American National Standard
for Ophthalmics –

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

1 Scope and Purpose

1.1 Scope

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

1.2 Purpose

The purpose of this standard is to establish requirements for ready-to-wear near-vision spectacles, commonly called “readers,” and for the flame, durability and durability of frames and lenses. This standard does not address the safety performance requirements for occupational safety eyewear as defined within ANSI Z87.1 nor for sports eyewear as defined within ASTM F08.57 Committee standards.

Requirements for physical and refractive properties, except prismatic power imbalance, are based on test methods and procedures described in ANSI Z80.1.

Prismatic power properties and transmittance requirements in ANSI Z80.3 shall apply.

2 Normative References

The following standards contain provisions that, through reference in this text, constitute provisions of this American National Standard. All standards are subject to revision, and parties to agreements based on this American National Standard are encouraged to apply the most recent editions of the standards indicated below.

ANSI Z80.1, *Recommendation for prescription ophthalmic lenses*¹

ANSI Z80.17, *Focimeters*¹

ANSI Z80.3, *Non-prescription sunglass and fashion eyewear requirements*¹

ANSI Z80.5, *Requirements for ophthalmic frames*¹

ANSI Z87.1, *Occupational and educational eye and face protection devices*¹

ANSI/ASQC Z1.4, *Sampling procedures and tables for inspection by attributes*¹

¹ Available from the American National Standards Institute, 25 West 43rd Street, New York, NY 10036
(Website: webstore.ansi.org)