
**Ophthalmic optics — Uncut finished
spectacle lenses —**

**Part 2:
Specifications for power-variation
lenses**

*Optique ophtalmique — Verres de lunettes finis non détournés —
Partie 2: Spécifications pour les verres à variation de puissance*



This document is a preview generated by EBS



COPYRIGHT PROTECTED DOCUMENT

© ISO 2017, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Classification	1
5 Requirements	2
5.1 Reference temperature	2
5.2 Optical requirements	2
5.2.1 General	2
5.2.2 Back vertex power of power-variation lenses at the primary reference point	2
5.2.3 Direction of the cylinder axis	2
5.2.4 Variation power (including addition power)	3
5.2.5 Prismatic power	3
5.2.6 Prism base setting	3
5.3 Requirements for size and thickness	4
5.4 Orientation requirement for polarizing lenses	4
6 Verification methods	4
6.1 General	4
6.2 Verification method for back vertex power	4
6.3 Verification method for the direction of the cylinder axis	5
6.4 Verification method for prismatic power	5
6.5 Verification method for variation power (including addition power)	5
6.5.1 General	5
6.5.2 Procedure	5
6.6 Inspection method for material and surface quality	5
7 Marking	5
7.1 Permanent marking	5
7.2 Optional non-permanent marking	6
8 Identification and information	6
9 Reference to this document	6
Annex A (informative) Material and surface quality	7
Bibliography	8

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html

This document was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 7, *Ophthalmic optics and instruments*.

This third edition cancels and replaces the second edition (ISO 8980-2:2004), which has been technically revised. It also incorporates the Technical Corrigendum ISO 8980-2:2004/Cor.1:2006.

A list of all parts in the ISO 8980 series can be found on the ISO website.

Ophthalmic optics — Uncut finished spectacle lenses —

Part 2:

Specifications for power-variation lenses

1 Scope

This document specifies requirements and verification methods for the optical and geometrical properties for uncut finished power-variation lenses.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 7944, *Optics and optical instruments — Reference wavelengths*

ISO 8429, *Optics and optical instruments — Ophthalmology — Graduated dial scale*

ISO 8598-1, *Optics and optical instruments — Focimeters — Part 1: General purpose instruments*

ISO 8980-3, *Ophthalmic optics — Uncut finished spectacle lenses — Part 3: Transmittance specifications and test methods*

ISO 13666, *Ophthalmic optics — Spectacle lenses — Vocabulary*

ISO 14889, *Ophthalmic optics — Spectacle lenses — Fundamental requirements for uncut finished lenses*

ISO 21987, *Ophthalmic optics — Mounted spectacle lenses*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 13666 and ISO 21987 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <http://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Classification

Uncut finished lenses are classified as follows:

- a) single-vision finished lenses;
- b) multifocal finished lenses;
- c) power-variation finished lenses.