INTERNATIONAL STANDARD

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Ophthalmic optics — Specifications for single-vision ready-to-wear near-vision spectacles

Optique ophtalmique — Spécifications pour les lunettes prémontées pour vision de près à verres unifocaux

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 16034 was prepared by Technical Committee ISO/TC 172, *Optics and optical instruments*, Subcommittee SC 7, *Ophthalmic optics and instruments*.

Ophthalmic optics — Specifications for single-vision ready-to-wear near-vision spectacles

1 Scope

This International Standard specifies the minimum requirements for complete single-vision ready-to-wear near-vision spectacles. These spectacles are not intended for regular use without the approval of an eyecare professional.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 7998:1984, *Optics and optical instruments — Spectacle frames — Vocabulary and lists of equivalent terms*

ISO 8624:1991, *Optics and optical instruments — Ophthalmic optics — Measuring system for spectacle frames*

ISO 8980-1:1996, *Ophthalmic optics — Uncut finished spectacle lenses — Part 1: Specifications for single-vision and multifocal lenses*

ISO 12870:1997, *Ophthalmic optics — Spectacle frames — General requirements and test methods*

ISO 13666:1998, *Ophthalmic optics — Spectacle lenses — Vocabulary*

ISO 14889:1997, *Ophthalmic optics — Spectacle lenses — Fundamental requirements for uncut finished lenses*

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 7998 and in ISO 13666 and the following apply.

3.1
single-vision ready-to-wear near-vision spectacles
spectacles intended for near-vision and reading use only, having or incorporating a pair of single-vision lenses of equal positive spherical power in which the glazing has not been carried out in direct response to a written prescription by a qualified practitioner

4 Performance requirements

The tolerances shall apply at a temperature of 23 °C ± 5 °C.

4.1 General requirements

The spectacle lenses of single-vision ready-to-wear near-vision spectacles shall be in accordance with ISO 14889.

The frame of single-vision ready-to-wear near-vision spectacles shall be in accordance with ISO 12870.

The glazing of spectacle lenses shall be verified by the lens retention test as specified in ISO 12870.

The spectacle lenses shall be securely held in position so that movement or rotation in the frame cannot occur under any condition of intended use.

4.2 Optical power range

The lenses for single-vision ready-to-wear near-vision spectacles shall have equal nominal power within the range from + 1,00 to + 3,50 dioptres.

4.3 Optical power tolerances

Tolerances to be applied to the values declared by the manufacturer shall be in accordance with ISO 8980-1.

4.4 Reference points and prismatic power tolerances

4.4.1 Design reference points

— Horizontal: the design reference points are specified by the manufacturer and are spaced symmetrically with respect to the vertical symmetry axis of the frame in accordance with ISO 8624.

— Vertical: the design reference points may be specified by the manufacturer and shall be at the same height for each lens.

4.4.2 Prismatic power tolerances

The deviation of prismatic power (horizontal: per lens; vertical: difference between lenses), measured at the design reference points specified by the manufacturer, shall not exceed the values given in Table 1.

Table 1 — Prismatic tolerances

Horizontal tolerance	0,33 cm/m absolute each lens
Vertical tolerance	0,33 cm/m imbalance between lenses

5 Marking on the spectacles, indications on packaging, instructions for use

5.1 Marking

Spectacles shall be permanently marked with the following minimum information:

a) name or trade mark of manufacturer or distributor;

b) manufacturer's declared spherical power in dioptres.