

भारतीय मानक

IS 18578 : 2024

Indian Standard

नेत्र प्रकाशिकी — एकल-दृष्टि वाले निकट-दृष्टि
वाले पहनने के लिए तैयार चश्मे — विशिष्टि
(ISO 16034 : 2002, संशोधित)

Ophthalmic Optics — Single-Vision
Ready-to-Wear Near-Vision
Spectacles — Specification
(ISO 16034 : 2002, MOD)

ICS 11.040.70

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

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NATIONAL FOREWORD

This Indian Standard which is modified adoption of ISO 16034 : 2002 + COR 1 : 2006 'Ophthalmic optics — Specifications for single-vision ready-to-wear near-vision spectacles' issued by the International Organization for Standardization (ISO) was adopted by Bureau of Indian Standards on the recommendation of the Ophthalmic Instruments and Appliances Sectional Committee and after approval of the Medical Equipment and Hospital Planning Division Council.

Technical Corrigendum 1 published in 2006 to the above International Standard has been given at the end of this publication.

The text of ISO standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'; and
- b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards which are to be substituted in their respective places are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 7998 Optics and optical instruments — Spectacle frames — Vocabulary and lists of equivalent terms	IS/ISO 7998 : 2005 Ophthalmic optics — Spectacle frames — Lists of equivalent terms and vocabulary	Identical
ISO 8624 Optics and optical instruments — Ophthalmic optics — Measuring system for spectacle frames	IS 18378 : 2023/ISO 8624 : 2020 Ophthalmic optics spectacle frames — Measuring system and vocabulary (<i>first revision</i>)	Identical
ISO 8980-1 Ophthalmic optics — Uncut finished spectacle lenses — Part 1: Specifications for single-vision and multifocal lenses	IS/ISO 8980-1 : 2017 Ophthalmic optics — Uncut finished spectacle lenses: Part 1 Specifications for single-vision and multifocal lenses (<i>first revision</i>)	Identical
ISO 12870 Ophthalmic optics — Spectacle frames — General requirements and test methods	IS 18576 : 2024 Ophthalmic optics — Spectacle frames — Requirements and test methods (ISO 12870 : 2016 MOD)	Modified

The Committee has reviewed the provisions of the following International Standard referred in this adopted standard and has decided that it is acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
ISO 13666	Ophthalmic optics — Spectacle lenses — Vocabulary
ISO 14889	Ophthalmic optics — Spectacle lenses — Fundamental requirements for uncut finished lenses

[*\(Continued on third cover\)*](#)

*Indian Standard***OPHTHALMIC OPTICS — SINGLE-VISION READY-TO-WEAR
NEAR-VISION SPECTACLES — SPECIFICATION
(ISO 16034 : 2002, MOD)****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 $23\text{ °C} \pm 5\text{ °C}$.

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.

5.2 Indications on packaging and warning

Manufacturer's declared centration distance in millimetres shall be marked on the frame, hang tag or applied sticker.

Warning of the unsuitability for driving or road use shall be indicated by the symbol given in Figure 1.

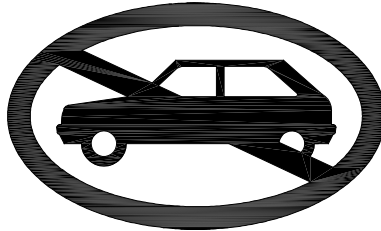


Figure 1 — Symbol “not suitable for driving and road use”

A legible notice is required in the national language of the intended destination in the form of an affixed label or swing tag, as follows:

WARNING
<ul style="list-style-type: none">• For near-vision and reading use only• Not for regular use without the approval of an eyecare professional• Not for driving or vehicle operation• Not for distance vision• Not for use as eye protection

If the manufacturer or supplier claims compliance with this International Standard, its number and year shall be included either on the package or in the available literature.

NATIONAL ANNEX A

[\(National Foreword\)](#)

A-1 BIS CERTIFICATION MARKING

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the product(s) may be marked with the Standard Mark.

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

TECHNICAL CORRIGENDUM 1

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

RECTIFICATIF TECHNIQUE 1

Technical Corrigendum 1 to ISO 16034:2002 was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 7, *Ophthalmic optics and instruments*.

Page 1, Clause 2

Replace the normative references such that they are undated and so that their most recent edition applies. Update the titles of the listed publications, as follows.

2 Normative references

The following referenced documents are indispensable for the application 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 7998, *Ophthalmic optics — Spectacle frames — Lists of equivalent terms and vocabulary*

ISO 8624, *Ophthalmic optics — Spectacle frames — Measuring system and terminology*

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

ISO 12870, *Ophthalmic optics — Spectacle frames — Requirements and test methods*

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

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

[\(Continued from second cover\)](#)

In this Standard, reference to ISO 12870 has been modified to IS 18576 : 2024 which is a modified adoption of ISO 12870 : 2016.

This standard also makes a reference to the BIS Certification Marking of the product, details of which is given in [National Annex A](#).

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or analysis shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be same as that of the specified value in this standard.

Bureau of Indian Standards

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Review of Indian Standards

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the website-www.bis.gov.in or www.standardsbis.in.

This Indian Standard has been developed from Doc No.: MHD 05 (24175).

Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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