

**Optika ja optikariistad.
Kontrollimisklaasid fosimeetrite
kalibreerimiseks**

Optics and optical instruments - Test lenses for calibration of focimeters - Part 1: Test lenses for focimeters used for measuring spectacle lenses

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 9342-1:2005 sisaldab Euroopa standardi EN ISO 9342-1:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 22.06.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 9342-1:2005 consists of the English text of the European standard EN ISO 9342-1:2005.</p> <p>This document is endorsed on 22.06.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: Käesolev rahvusvaheline standard esitab nõuded fosimeetrite kalibreerimiseks ettenähtud kontrollimisklaasidele.</p>	<p>Scope: This part of ISO 9342 specifies requirements for test lenses for the calibration of focimeters that are used for the measurement of spectacle form lenses.</p>
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Võtmesõnad: frontofokomeetrid, kalibreerimine, kontrollklaasid, optika, optiline instrumentarium, optiline mõõteaparatuur, tehnilised andmed, testimisvahendid

English version

**Optics and optical instruments - Test lenses for calibration of
focimeters - Part 1: Test lenses for focimeters used for
measuring spectacle lenses (ISO 9342-1:2005)**

Optique et instruments d'optique - Verres étalons pour
l'étalonnage des frontofocomètres - Partie 1: Verres
étalons pour frontofocomètres pour le mesurage des verres
de lunettes (ISO 9342-1:2005)

Optik und optische Instrumente - Prüfgläser zur
Kalibrierung von Scheitelbrechwert-Messgeräten - Teil 1:
Prüfgläser für Scheitelbrechwert-Messgeräte für die
Messung von Brillengläsern (ISO 9342-1:2005)

This European Standard was approved by CEN on 4 April 2005.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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Foreword

This document (EN ISO 9342-1:2005) has been prepared by Technical Committee ISO/TC 172 "Optics and optical instruments" in collaboration with Technical Committee CEN/TC 170 "Ophthalmic optics", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2005, and conflicting national standards shall be withdrawn at the latest by November 2005.

This document supersedes EN ISO 9342:1998.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Endorsement notice

The text of ISO 9342-1:2005 has been approved by CEN as EN ISO 9342-1:2005 without any modifications.

**Optics and optical instruments — Test
lenses for calibration of focimeters —**

**Part 1:
Test lenses for focimeters used for
measuring spectacle lenses**

*Optique et instruments d'optique — Verres étalons pour l'étalonnage
des frontofocomètres —*

*Partie 1: Verres étalons pour frontofocomètres pour le mesurage des
verres de lunettes*



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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 9342-1 was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 7, *Ophthalmic optics and instruments*.

This first edition cancels and replaces ISO 9342:1996, of which Clause 1 and Clauses A.5 to A.7 have been technically revised.

ISO 9342 consists of the following parts, under the general title *Optics and optical instruments — Test lenses for calibration of focimeters*:

- *Part 1: Test lenses for focimeters used for measuring spectacle lenses*
- *Part 2: Test lenses for focimeters used for measuring contact lenses*

Optics and optical instruments — Test lenses for calibration of focimeters —

Part 1: Test lenses for focimeters used for measuring spectacle lenses

1 Scope

This part of ISO 9342 specifies requirements for test lenses for the calibration of focimeters that are used for the measurement of spectacle form lenses.

NOTE It is accepted that other test lenses can also be used with powers within the given range, manufactured to the same standard of accuracy and form, but different back vertex powers. However, only lenses with integer nominal powers, as described in Annex A, can be used for the calibration of digitally-rounding focimeters.

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 7944, *Optics and optical instruments — Reference wavelengths*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

spherical test lenses

lenses used for the calibration of the dioptric power measurements by focimeters, in which the power of each lens is expressed as its back vertex power in dioptres (D)

3.2

prismatic test lenses

lenses used for the calibration of the prismatic deviation measurements by focimeters, in which the prismatic power of each lens is expressed in centimetres deviation per metre distance (cm/m)

NOTE The special name for the unit for expressing prismatic power is the “prism dioptre” for which the symbol “Δ” is used.

3.3

cylindrical test lenses

lenses with cylindrical faces which are used to calibrate the axis marker and axis indicator with respect to the adjustment orientation of the rail

NOTE These lenses are usually specially designed and marked.