
**Microscopes — Designation of
microscope objectives —**

**Part 2:
Chromatic correction**

*Microscopes — Désignation des objectifs de microscope —
Partie 2: Correction chromatique*

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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 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 19012-2 was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 5, *Microscopes and endoscopes*.

This second edition cancels and replaces the first edition (ISO 19012-2:2009), 4.3.2 of which has been technically revised.

ISO 19012 consists of the following parts, under the general title *Microscopes — Designation of microscope objectives*:

- *Part 1: Flatness of field/Plan*
- *Part 2: Chromatic correction*

The following parts are under preparation:

- *Part 3: Spectral transmittance*

Microscopes — Designation of microscope objectives —

Part 2: Chromatic correction

1 Scope

This part of ISO 19012 specifies classes of chromatic correction and defines minimum requirements regarding chromatic correction. The defined marking on the component enables the operator to correctly use the microscope.

The standard application for visual observation refers to the combination of objective and tube lens as specified by the manufacturer. The specifications regarding chromatic correction only refer to axial chromatic aberration.

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 10934-1, *Optics and optical instruments — Vocabulary for microscopy — Part 1: Light microscopy*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 10934-1 and the following apply.

3.1

reference wavelength

wavelength of 546,07 nm (e-line)

3.2

blue wavelength

wavelength of 479,99 nm (F'-line)

3.3

red wavelength

wavelength of 643,85 nm (C'-line)

3.4

focus

best focusing point for each wavelength

3.5

focus difference

axial separation of foci for different wavelengths