INTERNATIONAL STANDARD

ISO 10110-13

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Optics and optical instruments — Preparation of drawings for optical elements and systems —

Part 13:
Laser irradiation damage threshold

Optique et instruments d'optique — Préparation des dessins pour éléments et systèmes optiques —

Partie 13: Seuil de dommage au rayonnement laser

Reference number
ISO 10110-13:1997(E)

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.

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.

International Standard ISO 10110-13 was prepared by Technical Committee ISO/TC 172, *Optics and optical instruments*, Subcommittee SC 1, *Fundamental standards*.

ISO 10110 consists of the following parts, under the general title *Optics and optical instruments — Preparation of drawings for optical elements and systems*:

— *Part 1: General*

— *Part 2: Material imperfections — Stress birefringence*

— *Part 3: Material imperfections — Bubbles and inclusions*

— *Part 4: Material imperfections — Inhomogeneity and striae*

— *Part 5: Surface form tolerances*

— *Part 6: Centring tolerances*

— *Part 7: Surface imperfection tolerances*

— *Part 8: Surface texture*

— *Part 9: Surface treatment and coating*

— *Part 10: Table representing data of a lens element*

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— *Part 11: Non-toleranced data*

— *Part 12: Aspheric surfaces*

— *Part 13: Laser irradiation damage threshold*

— *Part 14: Wavefront deformation tolerance for systems containing zero-power elements only*

Annex A of this part of ISO 10110 is for information only.

Optics and optical instruments — Preparation of drawings for optical elements and systems —

Part 13:
Laser irradiation damage threshold

1 Scope

ISO 10110 specifies the presentation of design and functional requirements for optical elements in technical drawings used for manufacturing and inspection.

This part of ISO 10110 specifies rules for the indication of the damage threshold from laser irradiation below which optical surfaces shall not exhibit any damage as defined in ISO 11254-1.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 10110. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 10110 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 10110-5:1996, *Optics and optical instruments — Preparation of drawings for optical elements and systems — Part 5: Surface form tolerances*.

ISO 10110-6:1996, *Optics and optical instruments — Preparation of drawings for optical elements and systems — Part 6: Centring tolerances*.

ISO 10110-7:1996, *Optics and optical instruments — Preparation of drawings for optical elements and systems — Part 7: Surface imperfection tolerances*.

ISO 10110-10:1996, *Optics and optical instruments — Preparation of drawings for optical elements and systems — Part 10: Table representing data of a lens element*.

ISO 11254-1:—[1)], *Optical surfaces — Test methods for laser radiation-induced damage threshold — Part 1: 1 on 1 test.*

1) To be published.