Second edition 2016-07-15

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

Part 9: **Surface treatment and coating**

Optique et photonique — Indications sur les dessins pour éléments et systèmes optiques —

Partie 9: Traitement de surface et revêtement



Reference number ISO 10110-9:2016(E)

ISO 10110-9:2016(E)

This is a preview of "ISO 10110-9:2016". Click here to purchase the full version from the ANSI store.



COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office Ch. de Blandonnet 8 • CP 401 CH-1214 Vernier, Geneva, Switzerland Tel. +41 22 749 01 11 Fax +41 22 749 09 47 copyright@iso.org www.iso.org

| Contents | | Page | |
|----------|---|---|---|
| Fore | orewordi | | |
| 1 | Scop | e | 1 |
| 2 | Normative references | | 1 |
| 3 | | | |
| 4 | General | | 1 |
| 5 | Indications in drawings | | 2 |
| | 5.1 5.2 | General | |
| | 5.3 | Indication of protective treatments | 3 |
| 6 | Imp | erfections of functional coatings | 3 |
| 7 | Examples | | 3 |
| Ann | ex A (in | formative) Functional coatings (from ISO 9211-1:2010) | 5 |
| | ex B (in | formative) Example for an optical drawing using the indication of functional ings in tabular form | |
| Ann | Annex C (informative) Example for a coating specification document | | |
| Ann | Annex D (informative) Example of a functional coating indication showing two different coatings on the same surface | | |
| Bibl | Bibliography | | |

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 172, *Optics and photonics*, Subcommittee SC 1, *Fundamental standards*.

This second edition cancels and replaces the first edition (ISO 10110-9:1996), which has been technically revised with the following changes:

- a) the referencing of optical coating standards ISO 9211-1 and ISO 9211-2;
- b) the description of functional coatings in tabular form as described in ISO 10110-1;
- c) a complete revision of all drawings;
- d) the addition of <u>Annexes A</u> to <u>D</u> which show examples for optical drawings and coating specification documents.

ISO 10110 consists of the following parts, under the general title *Optics and photonics* — *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; roughness and waviness
- Part 9: Surface treatment and coating

- Part 10: Table representing data of optical elements and cemented assemblies
- Part 11: Non-toleranced data
- Part 12: Aspheric surfaces
- Part 14: Wavefront deformation tolerance
- Part 17: Laser irradiation damage threshold
- Part 19: General description of surfaces and components