

BUREAU OF INDIAN STANDARDS

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Doc No.: PGD 39 (23504)

IS 5920 (Part 4) : 2023

ISO 10110-7 : 2017

November 2023

भारतीय मानक मसौदा

प्रकाशिकी और फोटोनिक्स – प्रकाशीय तत्वों और प्रणालियों के लिए आरेखण तैयार करना

भाग 4 सतह की त्रुटियाँ

Draft Indian Standard

Optics and Photonics — Preparation of Drawings for Optical Elements and Systems

Part 4 Surface Imperfections

ICS 01.100.20; 37.020

Optics and Photonics, PGD 39

NATIONAL FOREWORD

This draft Indian Standard (Part 4) which is identical with ISO 10110-7 : 2017 ‘Optics and photonics — Preparation of drawings for optical elements and systems — Part 7: Surface imperfections’ issued by the International Organization for Standardization (ISO) will be adopted by the Bureau of Indian Standards on the recommendation of the Optics and Photonics Sectional Committee and approval of the Production and General Engineering Division Council.

This standard specifies the presentation of design and functional requirements for single optical elements and for optical assemblies in technical drawings used for their manufacture and inspection. This document also specifies the indication of the level of acceptability of surface imperfections within a test region on individual optical elements and optical assemblies. These include localized surface imperfections, edge chips and long scratches.

This standard has been published in thirteen parts. Part 1 of this series supersedes the originally published Indian Standard IS 5920 : 1970 ‘Recommendation for the preparation of drawing for optical elements and system’. Other parts in this series are:

- Part 1 General
- Part 2 Surface form tolerances
- Part 3 Centring tolerances
- Part 5 Surface texture
- Part 6 Surface treatment and coating
- Part 7 Non-toleranced data

- Part 8 Aspheric surfaces
- Part 9 Wavefront deformation tolerance
- Part 10 Diffractive surfaces
- Part 11 Laser irradiation damage threshold
- Part 12 Stress birefringence, bubbles and inclusions, homogeneity, and striae
- Part 13 General description of surfaces and components

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’.
- 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 an International Standard for which Indian Standard also exist. The corresponding Indian Standard, which is to be substituted in its place, is listed below along with its degree of equivalence for the edition indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 10110-1 Optics and photonics — Preparation of drawings for optical elements and systems— Part1 : General	IS 5920 (Part 1) : 2023/ISO 10110-1 : 2019 — Optics and Photonics — Preparation of Drawings for Optical Elements and Systems : Part 1 General	Identical under dual numbering

The technical committee has reviewed the provisions of the following International Standards 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 14997	Optics and photonics — Test methods for surface imperfections of optical elements

NOTE: The technical content of draft standard is not available on website. For details, please refer to ISO 10110-7 : 2023 or contact:

Head
Production and General Engineering Department
Bureau of Indian Standards
9 Bahadur Shah Zafar Marg New Delhi-110002
Email: pgd@bis.org.in
Telefax:011-23234819