***भारतीय मानक***

***Indian Standard***

 **IS 5920 (Part 4) : 2024**

 **ISO 10110-7 : 2017**

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

भाग 4 सतह की त्रुटियाँ

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

**Part 4 Surface Imperfections**

ICS 01.100.20; 37.020

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

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 **August 2024 Price Group**

Optics and Photonics Sectional Committee, PGD 39

NATIONAL FOREWORD

This 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) was 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 optical assemblies in technical drawings used for their manufacture and inspection. It 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.

IS 5920 (Part 1) supersedes the originally published Indian Standard IS 5920 : 1970 ‘Recommendation for the preparation of drawing for optical elements and system’.

This standard has been published in thirteen parts. The 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

1. Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.
2. 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 the following International Standard for which Indian Standard also exists. 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:

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| --- | --- | --- |
| *International Standard* | *Corresponding Indian Standard* | *Degree of Equivalence* |
| ISO 10110-1 Optics and photonics — Preparation of drawings for optical elements and systems— Part1: General | IS 5920 (Part 1) : 2024/ISO 10110-1 : 2019 — Optics and photonics — Preparation of drawings for optical elements and systems: Part 1 General  | Identical |

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The technical committee has reviewed the provisions of the following International Standard referred in this adopted standard and has decided that it is acceptable for use in conjunction with this standard.

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| *International Standard* | *Title* |
| ISO 14997 | Optics and photonics — Test methods for surface imperfections of optical elements |