***भारतीय मानक***

***Indian Standard***

**IS 5920 (Part 8) : 2024**

**ISO 10110-12 : 2019**

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

भाग 8 गैर-गोलीय सतहें

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

**Part 8 Aspheric Surfaces**

ICS 01.100.20; 37.020

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भारतीय मानक ब्यूरो

BUREAU OF INDIAN STANDARDS

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NATIONAL FOREWORD

This Indian Standard (Part 8), which is identical with ISO 10110-12 : 2019 ‘Optics and photonics — Preparation of drawings for optical elements and systems — Part 12: Aspheric surfaces’ 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 rules for presentation of aspheric surfaces and surfaces with low order symmetry such as cylinders and toroids.

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 Centering tolerances

Part 4 Surface imperfections

Part 5 Surface texture

Part 6 Surface treatment and coating

Part 7 Non-tolerance data

Part 9 Wave front 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, references appear to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degrees of equivalence for the editions indicated:

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| --- | --- | --- |
| *International Standard* | *Corresponding Indian Standard* | *Degree of Equivalence* |
| ISO 1101 Geometrical product specifications (GPS) — Geometrical tolerancing — Tolerances of form, orientation, location and run-out | IS 8000 (Part-1) : 2019/ISO 1101 Geometrical product specifications (GPS) — Geometrical tolerancing: Part 1 Tolerances of form, orientation, location and run-out (*second revision*) | Identical |
| ISO 10110-1 Optics and photonics — Preparation of drawings for optical elements and systems — Part 1: 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 |
| ISO 10110-5 Optics and photonics — Preparation of drawings for optical elements and systems — Part 5: Surface form tolerance | IS 5920 (Part 2) : 2024/ISO 10110-5 : 2015 Optics and photonics — Preparation of drawings for optical elements and systems: Part 2 Surface form tolerance | Identical |
| ISO 10110-6 Optics and photonics — Preparation of drawings for optical elements and systems — Part 6: Centring tolerances | IS 5920 (Part 3) : 2024/ISO 10110-6 : 2015 Optics and photonics — Preparation of drawings for optical elements and systems: Part 3 Centring tolerances | Identical |
| ISO 10110-7 Optics and photonics — Preparation of drawings for optical elements and systems — Part 7: Surface imperfections | IS 5920 (Part 4) : 2024/ISO 10110-7 : 2017 Optics and photonics — Preparation of drawings for optical elements and systems: Part 4 Surface imperfections | Identical |
| ISO 10110-8 Optics and photonics — Preparation of drawings for optical elements and systems — Part 8: Surface texture | IS 5920 (Part 5) : 2024/ISO 10110-8 : 2019 Optics and photonics — Preparation of drawings for optical elements and systems: Part 5 Surface texture | Identical |