

BUREAU OF INDIAN STANDARDS

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Doc No.: PGD 39 (23512)

IS 5920 (Part 11) : 2023

ISO 10110-17 : 2004

November 2023

भारतीय मानक मसौदा

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

भाग 11 लेजर विकिरण क्षति सीमा

Draft Indian Standard

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

Part 11 Laser Irradiation Damage Threshold

ICS 01.100.20; 37.020; 31.260

Optics and Photonics, PGD 39

NATIONAL FOREWORD

This draft Indian Standard which is identical with ISO 10110-17 : 2004 'Optics and photonics — Preparation of drawings for optical elements and systems — Part 17: Laser Irradiation Damage Threshold' 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 optical elements in technical drawings used for manufacturing and inspection. This standard also specifies rules for the indication of the damage threshold from laser irradiation up to which optical surfaces shall not exhibit any damage as defined in ISO 11254-1.

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	Centering tolerances
Part 4	Surface imperfections
Part 5	Surface texture
Part 6	Surface treatment and coating
Part 7	Non-tolerance data
Part 8	Aspheric surfaces

Part 9	Wave front deformation tolerance
Part 10	Diffraction surfaces
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 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.

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 10110-5 Optics and optical instruments — Preparation of drawings for optical elements and systems — Part 5 : Surface form tolerances	IS 5920 (Part 2) : XXXX/ISO 10110-5 : 2015 Optics and photonics — Preparation of drawings for optical elements and systems : Part 5 Surface form tolerance	Identical
ISO 10110-6 Optics and optical instruments — Preparation of drawings for optical elements and systems — Part 6 : Centring tolerances	IS 5920 (Part 3) : XXXX/ISO 10110-6 : 2015 Optics and photonics — Preparation of drawings for optical elements and systems : Part 6 Centring tolerances	Identical
ISO 10110-7 Optics and optical instruments — Preparation of drawings for optical elements and systems — Part 7 : Surface imperfection tolerances	IS 5920 (Part 4) : XXXX/ISO 10110-7 : 2017 Optics and photonics — Preparation of drawings for optical elements and systems : Part 7 Surface imperfections	Identical
ISO 11145 Optics and optical instruments — Lasers and laser-related equipment — Vocabulary and symbols	IS/ISO 11145 : 1994 Optics and optical instruments - Lasers and laser - Related equipment - Vocabulary and symbols	Identical

The technical committee has reviewed the provisions of the following International Standard this

referred in this adopted standard and has decided that it is acceptable for use in conjunction with standard.

International Standard

Title

ISO 11254-1	Lasers and laser-related equipment — Determination of laser-induced damage threshold of optical surfaces — Part 1 : 1-on-1 test
ISO 11254-2	Lasers and laser-related equipment — Determination of laser-induced damage threshold of optical surfaces — Part 2 : S-on-1 test

NOTE: The technical content of draft standard is not available on website. For details, please refer to ISO 10110-17 : 2004 or contact:

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