

ISO 10110-5:2026-05 (E)

Optics and photonics - Preparation of drawings for optical elements and systems - Part 5: Surface form tolerances

Contents

Page

Foreword.....	iv
Introduction.....	vi
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	1
4 Specification of tolerances for surface form deviation.....	2
4.1 General.....	2
4.2 Units.....	2
4.3 Wavelength.....	3
5 Indication in drawings.....	3
5.1 General.....	3
5.2 Structure of the indication based on code number.....	4
5.2.1 General.....	4
5.2.2 Code number.....	4
5.2.3 Basic form.....	4
5.2.4 Complete form.....	6
5.2.5 Detailed description of the forms and codes.....	7
5.2.6 Area.....	13
5.2.7 Location.....	14
5.3 Structure of the indication in tabular form.....	14
5.4 Specification of deviations in sets of Zernike polynomials in tabular form.....	14
6 Examples of tolerance indications.....	16
6.1 Examples for indication based on code number.....	16
6.1.1 Rotationally-invariant examples.....	16
6.1.2 Cylindrical/asymmetric examples.....	18
6.2 Examples for indication based on a table.....	19
6.2.1 Aspheric surface.....	19
6.2.2 XY - polynomials described surface (Cartesian coordinates).....	19
6.2.3 $\rho\varphi$ -polynomials described surface (polar coordinates).....	20
6.2.4 Example for specification of deviations in sets of Zernike coefficients in tabular form.....	20
Annex A (informative) Relationship between power deviation tolerance and radius of curvature tolerance.....	22
Annex B (informative) Comparison of ISO 10110-5 and ISO 14999-4 corresponding nomenclature, functions, and values.....	23
Bibliography.....	28