Doc: PGD 39 (28757) WC
September 2025

BUREAU OF INDIAN STANDARDS
DRAFT FOR COMMENTS ONLY

भारतीय मानक मसौदा

प्रकाशिकी और फोटोनिक्स – ऑप्टिकल कोटिंग्स

भाग 3 पर्यावरणीय स्थायित्व

Draft Indian Standard

Optics and photonics Optical coatings

Part 3 Environmental durability

ICS 37.020

Optics and Photonics Sectional Committee, PGD 39	Last date for receipt of comment is: **29 November 2025**

NATIONAL FOREWORD

This Indian Standard which is identical with ISO 9211-3 : 2024 'Optics and photonics — Optical coatings Part 3: Environmental durability' 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 has been published in several parts, other parts in this series are:

Part 1 Vocabulary
Part 2 Optical properties
Part 4 Specific test methods: abrasion, adhesion and resistance to water
Part 5 Minimum requirements for antireflecting coatings
Part 6 Minimum requirements for reflecting coatings
Part 7 Minimum requirements for neutral beam splitter coatings
Part 8 Minimum requirements for coatings used for laser optics

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, 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 degree of equivalence for the editions indicated:

International Standard	*Corresponding Indian Standard*	*Degree of Equivalence*
ISO 9211-4 Optics and optical instruments — Optical coatings — Part 4: Specific test methods: abrasion, adhesion and resistance to water	PGD 39 (28758)/ISO 9211-4 Optics and optical instruments — Optical coatings — Part 4: Specific test methods: abrasion, adhesion and resistance to water	Identical
ISO 9022-4 Optics and photonics — Environmental test methods — Part 4: Salt mist	IS 10236 (Part 6):1982/ISO 9022-4 Procedure for basic climatic and durability tests for optical instruments: Part 6 salt mist test	Identical
ISO 9022-6 Optics and photonics — Environmental test methods — Part 6: Dust	IS 10236 (Part 13):1986/ISO 9022-6 Procedure for basic climatic and durability tests for optical instruments: Part 13 dust test	Identical
ISO 9022-9 Optics and photonics — Environmental test methods — Part 9: Solar radiation and weathering	IS 10236 (Part 16):1988/ISO 9022-9 Procedure for basic climatic and durability tests for optical instruments part 16 solar radiation test	Identical
ISO 9022-11 Optics and photonics — Environmental test methods — Part 11: Mould growth	IS 10236 (Part 7):1983/ ISO 9022-11 Procedure for basic climatic and durability tests for optical instruments : Part 7 mould growth test	Identical

The technical committee has reviewed the provisions of the following International Standards referred in this adopted standard and has decided that they are acceptable for use in conjunction with this standard:

International Standard	*Title*
ISO 9022-1	Optics and photonics — Environmental test methods — Part 1: Definitions, extent of testing
ISO 9022-2	Optics and photonics — Environmental test methods — Part 2: Cold, heat and humidity
ISO 9022-12	Optics and photonics — Environmental test methods — Part 12: Contamination
ISO 9022-14	Optics and photonics — Environmental test methods — Part 14: Dew, hoarfrost, ice

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (second revision). The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

NOTE: The technical content of draft standard is not available on website. For details please refer to ISO 9211-3 : 2024 or contact:

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