
Optics and photonics — Specification of raw optical glass

Optique et photonique — Spécification d'un verre d'optique brut

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Contents

Page

Foreword	iv
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Tolerances	4
4.1 Principal refractive index.....	4
4.2 Refractive index variation.....	5
4.3 Abbe number.....	5
4.4 Spectral internal transmittance.....	5
4.5 UV cut-off edge and colour code.....	6
4.5.1 General.....	6
4.5.2 UV cut-off edge.....	6
4.5.3 Colour code.....	6
4.6 Optical homogeneity.....	6
4.7 Striae.....	7
4.8 Bubbles and inclusions.....	7
4.9 Stress birefringence.....	8
5 Deviation of the relative partial dispersion from the normal line — Definition of the normal lines	8
6 Indications for ordering raw glass parts	10
Annex A (informative) Recommendation for the specification of raw optical glass for a given optical element specification	13
Bibliography	21

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 172, *Optics and photonics*, Subcommittee SC 3, *Optical materials and components*.

This third edition cancels and replaces the second edition (ISO 12123:2010), which has been technically revised.

The main changes compared to the previous edition are as follows:

- a) definition of relative partial dispersion and its deviation from normal line and definition of internal transmittance have been added;
- b) grade abbreviations at all tolerances in [Clause 4](#) have been added;
- c) all abbreviations have been written with two capital letters with relation to characteristics' names;
- d) in [4.6](#), an indication for required minimum aperture has been added;
- e) in [4.7](#), striae indication for two and three perpendicular inspection directions has been added;
- f) for partial dispersion and its deviation from normal line, the following has been added: dispersion data for standard crown and flint glass for normal environment, general formula for normal lines for the relative partial dispersions for any wavelength pairs, examples for six specific line pairs in [Clause 5](#) and a calculation method and data for calculating dispersion data at temperatures other than 20 °C (see [A.3](#));
- g) in [Clause 6](#), Example 1 for specification of optical raw glass with tolerances grades has been introduced and extended by adding a second case;
- h) in [Clause 6](#), Example 2 has been added and illustrates lens element specification from element over pressing to raw glass specification;
- i) Tables have been renumbered.