ISO 23584-2:2012-08 (E)

Optics and photonics - Specification of reference dictionary - Part 2: Classes' and properties' definitions

Contents

Page

Foreword v

1 Scope 1

2 Normative references 1

3 Terms and definitions 1

4 Explanatory notes 1

5 Definition classes 3
5.1 ISOTC172-AAA005-001: 01 generalities, terminology, standardization, documentation 3
5.2 ISOTC172-AAA018-001: quantities 4
5.3 ISOTC172-AAA008-001: quantities of light and related electromagnetic radiations 5
5.4 ISOTC172-AAA012-001: 07 mathematics, natural sciences 6
5.5 ISOTC172-AAA019-001: 11 health care technology 7
5.6 ISOTC172-AAA001-001: 13 environment, health protection, safety 8
5.7 ISOTC172-AAA009-001: 17 metrology and measurement 9
5.8 ISOTC172-AAA015-001: 21 mechanical systems and components for general use 10
5.9 ISOTC172-AAA028-001: 31 electronics 11
5.10 ISOTC172-AAA003-001: 37 image technology 12
5.11 ISOTC172-AAA013-001: functional coating 13
5.12 ISOTC172-AAA011-001: optical element 14
5.13 ISOTC172-AAA002-001: optical material 15
5.14 ISOTC172-AAA010-001: optical glass 16
5.15 ISOTC172-AAA014-001: optical system 17
5.16 ISOTC172-AAA007-001: optically used surface 18
5.17 ISOTC172-AAA017-001: diffractive surface 19
5.18 ISOTC172-AAA006-001: dioptric surface 20

6 Properties 21
6.1 ISOTC172-AAA036-001: Abbe number referred to d-line 21
6.2 ISOTC172-AAA055-001: Abbe number referred to e-line 22
6.3 ISOTC172-AAA075-001: acid resistance 23
6.4 ISOTC172-AAA069-001: acid resistance class 24
6.5 ISOTC172-AAA074-001: alkali resistance 26
6.6 ISOTC172-AAA070-001: alkali resistance class 27
6.7 ISOTC172-AAA057-001: categories of optics 29
6.8 ISOTC172-AAA053-001: coefficient B1 of Sellmeier-equation 31
6.9 ISOTC172-AAA054-001: coefficient B2 of Sellmeier-equation 32
6.10 ISOTC172-AAA035-001: coefficient B3 of Sellmeier-equation 33
6.11 ISOTC172-AAA056-001: coefficient C1 of Sellmeier-equation 34
6.12 ISOTC172-AAA038-001: coefficient C2 of Sellmeier-equation 35
6.13 ISOTC172-AAA059-001: coefficient C3 of Sellmeier-equation 36
6.14 ISOTC172-AAA085-001: coefficient of mean linear thermal expansion (-30°C;+70°C) 37
6.15 ISOTC172-AAA077-001: colour code 38
6.16 ISOTC172-AAA033-001: direction of curvature of an optical surface 39
6.17 ISOTC172-AAA072-001: identification of visible surface changes 40
6.18 ISOTC172-AAA076-001: internal transmittance 42
6.19 ISOTC172-AAA078-001: Knoop hardness per ISO 9385:1990 43
6.20 ISOTC172-AAA046-001: manipulation of light 44

6.21 ISOTC172-AAA029-001: manufacturer of optical glass 45
6.22 ISOTC172-AAA088-001: material imperfection 46
6.23 ISOTC172-AAA037-001: material imperfection in terms of bubbles and inclusions 47
6.24 ISOTC172-AAA060-001: material imperfection in terms of stress birefringence 48
6.25 ISOTC172-AAA042-001: material imperfections in terms of striae 49
6.26 ISOTC172-AAA067-001: material imperfections of refractive index 51
6.27 ISOTC172-AAA050-001: mathematical description of surface 53
6.28 ISOTC172-AAA058-001: n() as per Sellmeier-equation 54
6.29 ISOTC172-AAA048-001: name of an optical coating 56
6.30 ISOTC172-AAA066-001: glass type 57
6.31 ISOTC172-AAA043-001: optically effective diameter 58
6.32 ISOTC172-AAA040-001: partial dispersion 59
6.33 ISOTC172-AAA039-001: principal dispersion (nF' - nC') 60
6.34 ISOTC172-AAA062-001: principal dispersion (nF - nC) 61
6.35 ISOTC172-AAA073-001: phosphate resistance 62
6.36 ISOTC172-AAA071-001: phosphate resistance class 63
6.37 ISOTC172-AAA030-001: primary function of the coating 65
6.38 ISOTC172-AAA061-001: refractive index 67
6.39 ISOTC172-AAA068-001: refractive index at spectral wavelength 68
6.40 ISOTC172-AAA052-001: scope according to ICS 69
6.41 ISOTC172-AAA049-001: surface adding characteristic 71
6.42 ISOTC172-AAA044-001: surface form deviation - irregularity 72
6.43 ISOTC172-AAA063-001: surface form deviation - rotationally invariant irregularity 73
6.44 ISOTC172-AAA065-001: surface form deviation - sagitta deviation 74
6.45 ISOTC172-AAA087-001: surface imperfections 75
6.46 ISOTC172-AAA041-001: surface imperfections - coating blemishes 76
6.47 ISOTC172-AAA034-001: surface imperfections - edge chips 77
6.48 ISOTC172-AAA051-001: surface imperfections - long scratches 78
6.49 ISOTC172-AAA064-001: surface imperfections-general surface imperfection 79
6.50 ISOTC172-AAA084-001: temperature coefficient nabs/T of refractive index 80
6.51 ISOTC172-AAA083-001: temperature coefficient nrel/T of refractive index 81
6.52 ISOTC172-AAA082-001: temperature interval 82
6.53 ISOTC172-AAA081-001: annealing point 84
6.54 ISOTC172-AAA080-001: softening point 85
6.55 ISOTC172-AAA086-001: thickness of a piece of material 86
6.56 ISOTC172-AAA032-001: tilt angle of a spherical surface 87
6.57 ISOTC172-AAA079-001: transformation temperature 88
6.58 ISOTC172-AAA047-001: wavelength 89
6.59 ISOTC172-AAA031-001: wavelength for special spectral lines 90

7 Application classes 94
7.1 ISOTC172-AAA020-001: ISOTC172 optics and photonics 94
7.2 ISOTC172-AAA021-001: ISOTC172SC01 fundamental standards 95
7.3 ISOTC172-AAA022-001: ISOTC172SC03 optical materials and components 96
7.4 ISOTC172-AAA023-001: ISOTC172SC04 telescopic systems 97
7.5 ISOTC172-AAA024-001: ISOTC172SC05 microscopes and endoscopes 98
7.6 ISOTC172-AAA025-001: ISOTC172SC06 geodetic and surveying instruments 99
7.7 ISOTC172-AAA026-001: ISOTC172SC07 ophthalmic optics and instruments 100
7.8 ISOTC172-AAA027-001: ISOTC172SC09 electro-optical systems 101

Bibliography 102