INTERNATIONAL STANDARD

ISO 23584-2

First edition 2012-08-15

Optics and photonics — Specification of reference dictionary —

Part 2: Classes' and properties' definitions

Optique et photonique — Spécification d'un dictionnaire de référence — Partie 2: Définitions des classes et des propriétés



Reference number ISO 23584-2:2012(E)

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 23584-2 was prepared by Technical Committee ISO/TC 172, Optics and photonics.

ISO 23584 consists of the following parts, under the general title *Optics and photonics* — *Specification of reference dictionary*:

- Part 1: General overview on organization and structure
- Part 2: Classes' and properties' definitions

Optics and photonics — Specification of reference dictionary —

Part 2:

Classes' and properties' definitions

1 Scope

This part of ISO 23584, on the basis of the rules set forth in ISO 13584-42, ISO/IEC Guide 77-2 and IEC 61360-1, specifies a reference dictionary of standardized product properties for the area of optics and photonics.

The properties are determined on the basis of standardized attributes. To ensure optimum unambiguity, the standardized properties are classified into definition classes forming a so-called standardized "reference hierarchy".

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 13584-42, Industrial automation systems and integration — Parts library — Part 42: Description methodology: Methodology for structuring parts families

ISO/IEC Guide 77-2, Guide for specification of product properties and classes — Part 2: Technical principles and guidance

IEC 61360-1, Standard data elements types with associated classification scheme for electric items — Part 1: Definitions — Principles and methods

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 13584-42, ISO/IEC Guide 77-2 and IEC 61360-1 apply.

NOTE Some basic definitions and principles of key importance for the understanding of this part of ISO 23584 are provided in ISO 23584-1:2009, Annex A for information.

4 Explanatory notes

Each property is defined in a particular definition class, which defines the domain of all properties specified therein. Once defined (in their definition class) the properties can be referenced, i.e. used, in other classes, e. g. in (standardized) application classes or immediately in a user's system. The entirety of definition classes makes up the ISO/TC 172 reference hierarchy.

The following definition classes form part of the reference dictionary for optics and photonics:

+--- 01 generalities, terminology, standardization, documentation

+--- quantities

+--- quantities of light and related electromagnetic radiations

+--- 07 mathematics, natural sciences

+--- 11 health care technology

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+			13 environment, health protection, safety
+			17 metrology and measurement
+			21 mechanical systems and components for general use
+			31 electronics
+			37 image technology
	+		functional coating
	+		optical element
	+		optical material
		+	optical glass
	+		optical system
	+		optically used surface
		+	diffractive surface
		+	dioptric surface

The attribute information for these definition classes is given in Clause 5. The attribute information for their associated properties is specified in Clause 6. Both can be viewed immediately in the ISO/TC 172 database.

The above structure of reference hierarchy provides the starting point included in this part of ISO 23584. It is not yet complete and will be expanded in the electronic version as more properties and their respective definition classes are defined.

In addition, a number of root application classes, one for ISO/TC 172 and one for each of the subcommittees of ISO/TC 172, have been included in order to provide the workspace for the committees to create their application classes, as required. These root application classes are given in Clause 7. They can also be viewed immediately in the ISO/TC 172 database.

The reader should carefully study ISO 23584-1 regarding definition classes, which is a subset of the specification of ISO 13584-42.

5 Definition classes

5.1 ISOTC172-AAA005-001: 01 generalities, terminology, standardization, documentation

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA005-001.023
Preferred name*	01 generalities, terminology, standardization, documentation
Short name	terminology
Synonymous name	
Definition*	ICS class of generalities, terminology, standardization and documentation
Source document of definition	
Note	
Remark	The class and its definition are based on the classification of ICS 5:2002.
List of defined properties	ISOTC172-AAA052-001
Figure	
Classification to ICS*	01.000
Its superclass	ISOTC172-AAA004-001
Preferred name of superclass	Definition classes
Keyword	
Applicable properties	ISOTC172-AAA052-001
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.2 ISOTC172-AAA018-001: quantities

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA018-001.015
Preferred name*	quantities
Short name	quantities
Synonymous name	
Definition*	classification and description of quantities
Source document of definition	
Note	
Remark	
List of defined properties	ISOTC172-AAA052-001
Figure	
Classification to ICS*	01.060
Its superclass	ISOTC172-AAA005-001
Preferred name of superclass	01 generalities, terminology, standardization, documentation
Keyword	dimension\quantity
Applicable properties	ISOTC172-AAA052-001
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.3 ISOTC172-AAA008-001: quantities of light and related electromagnetic radiations

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA008-001.021
Preferred name*	quantities of light and related electromagnetic radiations
Short name	
Synonymous name	
Definition*	quantities based on phenomena of light and related electromagnetic radiations
Source document of definition	
Note	
Remark	
List of defined properties	ISOTC172-AAA052-001
Figure	
Classification to ICS*	01.060
Its superclass	ISOTC172-AAA018-001
Preferred name of superclass	quantities
Keyword	
Applicable properties	ISOTC172-AAA052-001
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

ISOTC172-AAA012-001: 07 mathematics, natural sciences

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA012-001.019
Preferred name*	07 mathematics, natural sciences
Short name	natural sciences
Synonymous name	
Definition*	ICS class of the sciences that research the nature
Source document of definition	
Note	
Remark	The class and its definition are based on the classification of ICS 5:2002.
List of defined properties	
Figure	
Classification to ICS*	07.000
Its superclass	ISOTC172-AAA004-001
Preferred name of superclass	Definition classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.5 ISOTC172-AAA019-001: 11 health care technology

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA019-001.014
Preferred name*	11 health care technology
Short name	
Synonymous name	
Definition*	ICS class of health care technology
Source document of definition	
Note	
Remark	The class and its definition are based on the classification of ICS 5:2002
List of defined properties	
Figure	
Classification to ICS*	11.000
Its superclass	ISOTC172-AAA004-001
Preferred name of superclass	Definition classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

ISOTC172-AAA001-001: 13 environment, health protection, safety

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA001-001.026
Preferred name*	13 environment, health protection, safety
Short name	environment and safety
Synonymous name	
Definition*	ICS class comprising all instruments, devices, equipments and methods for the protection and safety of health and the environment
Source document of definition	
Note	
Remark	The class and its definition are based on the classification of ICS 5:2002.
List of defined properties	
Figure	
Classification to ICS*	13.000
Its superclass	ISOTC172-AAA004-001
Preferred name of superclass	Definition classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.7 ISOTC172-AAA009-001: 17 metrology and measurement

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA009-001.012
Preferred name*	17 metrology and measurement
Short name	metrology
Synonymous name	
Definition*	ICS class of the science of metrology and measurement, the key areas of which are units and reference masters, measurement methods and procedures, measurement equipment and any impact on the measurement result of an individual carrying out the measurement
Source document of definition	
Note	
Remark	The class and its definition are based on the classification of ICS 5:2002.
List of defined properties	
Figure	
Classification to ICS*	17.000
Its superclass	ISOTC172-AAA004-001
Preferred name of superclass	Definition classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

ISOTC172-AAA015-001: 21 mechanical systems and components for general use

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA015-001.014
Preferred name*	21 mechanical systems and components for general use
Short name	mechanical systems and components
Synonymous name	
Definition*	ICS class of mechanical parts and components, and of mechanical form features, which have been developed for a general function
Source document of definition	
Note	
Remark	The class and its definition are based on the classification of ICS 5:2002.
List of defined properties	
Figure	
Classification to ICS*	21.000
Its superclass	ISOTC172-AAA004-001
Preferred name of superclass	Definition classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.9 ISOTC172-AAA028-001: 31 electronics

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA028-001.012
Preferred name*	31 electronics
Short name	electronics
Synonymous name	
Definition*	ICS class of electronic components including optoelectronics and laser equipment
Source document of definition	
Note	
Remark	The class and its definition are based on the classification of ICS 5:2002.
List of defined properties	
Figure	
Classification to ICS*	31.000
Its superclass	ISOTC172-AAA004-001
Preferred name of superclass	Definition classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.10 ISOTC172-AAA003-001: 37 image technology

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA003-001.015
Preferred name*	37 image technology
Short name	
Synonymous name	
Definition*	ICS class of image technology, including optics (science and industry based on the science of light) and optical equipment
Source document of definition	
Note	Formerly optics was understood to be based on the science of visible light; nowadays optics is generally understood to be based on the science of electromagnetic radiation ranging from infrared through ultraviolet portions of the spectrum.
Remark	The class and its definition are based on the classification of ICS 5:2002.
List of defined properties	
Figure	
Classification to ICS*	37.000\37.020
Its superclass	ISOTC172-AAA004-001
Preferred name of superclass	Definition classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.11 ISOTC172-AAA013-001: functional coating

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA013-001.016
Preferred name*	functional coating
Short name	
Synonymous name	
Definition*	thin film of materials deposited onto the surface of an optical element which provides specific optical or non-optical modifications of surface properties
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA003-001
Preferred name of superclass	37 image technology
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.12 ISOTC172-AAA011-001: optical element

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA011-001.014
Preferred name*	optical element
Short name	
Synonymous name	
Definition*	part providing a function in optical imaging
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA003-001
Preferred name of superclass	37 image technology
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.13 ISOTC172-AAA002-001: optical material

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA002-001.013
Preferred name*	optical material
Short name	
Synonymous name	
Definition*	material that has main properties usable for optical imaging
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA003-001
Preferred name of superclass	37 image technology
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.14 ISOTC172-AAA010-001: optical glass

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA010-001.017
Preferred name*	optical glass
Short name	
Synonymous name	
Definition*	inorganic product produced by melting, which in principle solidifies without crystallization, intended for use in optical systems specified by its index of refraction, transmission of light, optical and material properties
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA002-001
Preferred name of superclass	optical material
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.15 ISOTC172-AAA014-001: optical system

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA014-001.019
Preferred name*	optical system
Short name	
Synonymous name	
Definition*	optical functional elements that follow one another, which describe optical imaging in its entirety
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA003-001
Preferred name of superclass	37 image technology
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.16 ISOTC172-AAA007-001: optically used surface

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA007-001.017
Preferred name*	optically used surface
Short name	
Synonymous name	
Definition*	surface which separates two optically used media from each other
Source document of definition	
Note	
Remark	form element of an optical element which influences the optical reproduction by reflection and diffraction
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA003-001
Preferred name of superclass	37 image technology
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.17 ISOTC172-AAA017-001: diffractive surface

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA017-001.023
Preferred name*	diffractive surface
Short name	
Synonymous name	
Definition*	structured surface with diffractive power
Source document of definition	
Note	
Remark	ISO 25297-1:2012, NODIF: diffractive_surface_description
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA007-001
Preferred name of superclass	optically used surface
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

5.18 ISOTC172-AAA006-001: dioptric surface

Hierarchy	Definition classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA006-001.016
Preferred name*	dioptric surface
Short name	
Synonymous name	
Definition*	optical surface with refractive or reflective power
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA007-001
Preferred name of superclass	optically used surface
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

6 Properties

6.1 ISOTC172-AAA036-001: Abbe number referred to d-line

Hierarchy	Properties
Identifier	ISOTC172-AAA036-001.027
[Information supplier-Code*-Version*-	10010112788800 0011027
Revision*]	
Preferred name*	Abbe number referred to d-line
Short name	vd
Synonymous name	
Preferred symbol	vd
Synonymous symbol	
Definition*	mathematical expression for determining the correction for chromatic aberration of an optical material or component referred to d-line, given as
	vd = (nd-1) / (nF-nC)
Source document of definition	adapted from ISO 9802:1996
Note	Ratio of the refractive index at the d-line subtracted by 1 to the principal dispersion between F- and C-line
Powerl.	vd = (nd-1) / (nF-nC)
Remark Formula	ISO 25297-1:2012, NODIF: Abbe_number
Unit of measure*	1
UN ECE code for unit	C62
Alternative unit	
IEC classification	L44
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.2 ISOTC172-AAA055-001: Abbe number referred to e-line

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA055-001.024
Preferred name*	Abbe number referred to e-line
Short name	νe
Synonymous name	
Preferred symbol	ve
Synonymous symbol	
Definition*	mathematical expression for determining the correction for chromatic aberration of an optical material or component refered to e-line, given as
Course de componé de definition	ve = (ne-1) / (nF'-nC')
Source document of definition	adapted from ISO 9802:1996
Note	ratio of the refractive index at the e-line subtracted by 1 to the principal dispersion between F'- and C'-line
Remark	ve = (ne-1) / (nF'-nC')
Formula	
Unit of measure*	1
UN ECE code for unit	C62
Alternative unit	C02
IEC classification	L44
Type of property D = dependent; N = non-dependent; C = condition	N N
Depends on	
Domain*:	l.
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.3 ISOTC172-AAA075-001: acid resistance

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA075-001.027
Preferred name*	acid resistance
Short name	SR
Synonymous name	
Preferred symbol	SR
Synonymous symbol	
Definition*	information about the behaviour of the surface of optical glasses that come into contact with large quantities of acidic solutions (from a practical standpoint, for example perspiration, laminating substances, carbonated water)
Source document of definition	ISO 8424: 1996
Note	Acid Resistance is classified by the Acid Resistance Class number and the Identification of Visible Surface Changes number separated by "." If no Identification of Visible Surface Changes has been done, only the Acid Resistance Class number is given.
Remark	example 53.2
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A57
Type of property D = dependent; N = non-dependent; C = condition	D
Depends on	ISOTC172-AAA069-001
	ISOTC172-AAA072-001
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

ISOTC172-AAA069-001: acid resistance class

Hierarchy	Properties
Identifier	ISOTC172-AAA069-001.058
[Information supplier-Code*-Version*- Revision*]	
Preferred name*	acid resistance class
Short name	SR
Synonymous name	
Preferred symbol	SR
Synonymous symbol	
Definition*	of optical glasses is determined on the basis of the time required to remove a layer thickness of glass of 0,1 μ m in an acidic solution of a given pH value at a temperature of 25 °C
Source document of definition	adapted from ISO 8424:1996
Note	Two aggressive solutions are used in determining the resistance to acids:
	A strong acid (nitric acid, $c = 0.5$ mol/l, $pH = 0.3$) at 25 °C is used for the more resistant glass types.
	For glasses with less acid resistance, a weakly acidic solution with a pH value of 4,6 (standard acetate) is used, also at 25 °C.
Remark	The acid resistance class 5 forms the transition point between the two groups. Included in it are glasses, for which the time for removal of a layer thickness of 0,1 μ m at a pH value of 0,3 is less than 0,1 h and at a pH value of 4,6 is greater than 10 h.
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A52
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	Integer
Value specification	EXPLICIT
List of values	1
	2
	3
	4
	5
	51
	52
	53
List of value names	SR 1
	SR 2
	SR 3
	SR 4
	SR 5
	SR 51
	SR 52
	SR 53

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA069-001.058
Preferred name*	acid resistance class
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

ISOTC172-AAA074-001: alkali resistance

Hierarchy	Properties
Identifier	ISOTC172-AAA074-001.027
[Information supplier-Code*-Version*-Revision*]	
Preferred name*	alkali resistance
Short name	AR
Synonymous name	
Preferred symbol	AR
Synonymous symbol	
Definition*	information about the behaviour of the surface of optical glasses that come in contact with warm, alkaline liquids, such as cooling liquids in grinding and polishing processes
Source document of definition	ISO 10629:1996
Note	Alkali Resistance is classified by the Alkali Resistance Class number and the Identification of Visible Surface Changes number separated by "." If no Identification of Visible Surface Changes has been done, only the Alkali Resistance Class number is given.
Remark	example 2.1
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A57
Type of property D = dependent; N = non-dependent; C = condition	D
Depends on	ISOTC172-AAA070-001
	ISOTC172-AAA072-001
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.6 ISOTC172-AAA070-001: alkali resistance class

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*-Revision*]	ISOTC172-AAA070-001.038
Preferred name*	alkali resistance class
Short name	AR
Synonymous name	
Preferred symbol	AR
Synonymous symbol	
Definition*	of optical glasses is determined on the basis of the time required to remove a layer thickness of glass of 0,1 μ m in an aqueous alkaline solution (sodium hydroxide, c = 0,01 mol/l, pH = 12) at a temperature of 50 °C
Source document of definition	ISO 10629:1996
Note	The removed layer thickness is calculated from the weight loss per surface area and the density of the glass.
Remark	
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A52
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	Integer
Value specification	EXPLICIT
List of values	1
	2
	3
	4
List of value names	AR 1
	AR 2
	AR 3
	AR 4
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03

ISO 23584-2:2012(E)

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA070-001.038
Preferred name*	alkali resistance class
liaisonTCSC	TC172
ebXML URI	

6.7 ISOTC172-AAA057-001: categories of optics

Hierarchy	Properties	٦
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA057-001.029	
Preferred name*	categories of optics	٦
Short name	category	Ī
Synonymous name		T
Preferred symbol		٦
Synonymous symbol		┪
Definition*	subdivision of the area of optics into various sub-areas	┪
Source document of definition		T
Note		П
Remark		П
Formula		٦
Unit of measure*		٦
UN ECE code for unit		\exists
Alternative unit		\exists
IEC classification	A91	\dashv
Type of property D = dependent; N = non-dependent; C = condition	N	
Depends on		٦
Domain*:		٦
Property type classification	String	П
Value specification	CODED	٦
List of values	A	٦
	В	
	c	
	 F	
	M	
	s	
List of value names	cemented assembly	\dashv
List of value flames	functional coating	
	optical element	
	optically used surface	
	optical material	
	optical system	_
Value format		Ц
Identification class instance types		\exists
Figure		Ц
Classification to ICS*	37.020	_
Definition class*	ISOTC172-AAA003-001	_
Preferred name of definition class	37 image technology	_
Keyword		_
Status	60.60 released	_
Date of original definition*	2012-08-15	_
Date of current version*	2012-08-15	

ISO 23584-2:2012(E)

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA057-001.029
Preferred name*	categories of optics
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

6.8 ISOTC172-AAA053-001: coefficient B1 of Sellmeier-equation

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA053-001.020
Preferred name*	coefficient B1 of Sellmeier-equation
Short name	B1
Synonymous name	
Preferred symbol	B1
Synonymous symbol	
Definition*	one out of a total of six coefficients that, for a specific glass type, are determined on the basis of precision measurements by fitting of the Sellmeier-equation to the measured values
Source document of definition	
Note	
Remark	
Formula	
Unit of measure*	1
UN ECE code for unit	C62
Alternative unit	
IEC classification	L44
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	01.060\17.180\37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

ISOTC172-AAA054-001: coefficient B2 of Sellmeier-equation

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA054-001.019
Preferred name*	coefficient B2 of Sellmeier-equation
Short name	B2
Synonymous name	
Preferred symbol	B2
Synonymous symbol	
Definition*	one out of a total of six coefficients that, for a specific glass type, are determined on the basis of precision measurements by fitting of the Sellmeier-equation to the measured values
Source document of definition	
Note	
Remark	
Formula	
Unit of measure*	1
UN ECE code for unit	C62
Alternative unit	
IEC classification	L44
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	01.060\17.180\37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.10 ISOTC172-AAA035-001: coefficient B3 of Sellmeier-equation

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA035-001.019
Preferred name*	coefficient B3 of Sellmeier-equation
Short name	B3
Synonymous name	
Preferred symbol	B3
Synonymous symbol	
Definition*	one out of a total of six coefficients that, for a specific glass type, are determined on the basis of precision measurements by fitting of the Sellmeier-equation to the measured values
Source document of definition	
Note	
Remark	
Formula	
Unit of measure*	1
UN ECE code for unit	C62
Alternative unit	
IEC classification	L44
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	01.060\17.180\37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.11 ISOTC172-AAA056-001: coefficient C1 of Sellmeier-equation

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA056-001.020
Preferred name*	coefficient C1 of Sellmeier-equation
Short name	C1
Synonymous name	
Preferred symbol	C1
Synonymous symbol	
Definition*	one out of a total of six coefficients that, for a specific glass type, are determined on the basis of precision measurements by fitting of the Sellmeier-equation to the measured values
Source document of definition	
Note	In data sheets the coefficients of the Sellmeier-equation are usually given dimensionless; therefore, for correct calculation using this equation, the wavelength shall be in micrometres.
Remark	
Formula	
Unit of measure*	μm ²
UN ECE code for unit	
Alternative unit	
IEC classification	L44
Type of property D = dependent; N = non-dependent; C = condition	C
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	01.060\17.180\37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.12 ISOTC172-AAA038-001: coefficient C2 of Sellmeier-equation

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA038-001.020
Preferred name*	coefficient C2 of Sellmeier-equation
Short name	C2
Synonymous name	
Preferred symbol	C2
Synonymous symbol	
Definition*	one out of a total of six coefficients that, for a specific glass type, are determined on the basis of precision measurements by fitting of the Sellmeier-equation to the measured values
Source document of definition	
Note	In data sheets the coefficients of the Sellmeier-equation are usually given dimensionless; therefore, for correct calculation using this equation, the wavelength shall be in micrometres.
Remark	
Formula	
Unit of measure*	μm ²
UN ECE code for unit	
Alternative unit	
IEC classification	L44
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	01.060\17.180\37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.13 ISOTC172-AAA059-001: coefficient C3 of Sellmeier-equation

Hierarchy	Properties
Identifier	ISOTC172-AAA059-001.020
[Information supplier-Code*-Version*-Revision*]	
Preferred name*	coefficient C3 of Sellmeier-equation
Short name	C3
Synonymous name	
Preferred symbol	C3
Synonymous symbol	
Definition*	one out of a total of six coefficients that, for a specific glass type, are determined on the basis of precision measurements by fitting of the Sellmeier-equation to the measured values
Source document of definition	
Note	In data sheets the coefficients of the Sellmeier-equation are usually given dimensionless; therefore, for correct calculation using this equation, the wavelength shall be in micrometres.
Remark	
Formula	
Unit of measure*	μm ²
UN ECE code for unit	
Alternative unit	
IEC classification	L44
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	01.060\17.180\37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.14 ISOTC172-AAA085-001: coefficient of mean linear thermal expansion α (-30°C;+70°C)

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA085-001.029
Preferred name*	coefficient of mean linear thermal expansion α (–30°C;+70°C)
Short name	α (-30°C;+70°C)
Synonymous name	
Preferred symbol	α
Synonymous symbol	
Definition*	is the ratio of the relative change in length of a glass sample when heated from -30°C to +70°C to the corresponding temperature difference of 100 K
Source document of definition	
Note	
Remark	α (–30°C;+70°C) is important information for the typical behaviour of thermal expansion at room temperature.
Formula	
Unit of measure*	10 ⁻⁶ K ⁻¹
UN ECE code for unit	M20
Alternative unit	
IEC classification	H03
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	thermal expansion\linear expansion
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.15 ISOTC172-AAA077-001: colour code

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA077-001.018
Preferred name*	colour code
Short name	
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	position and slope of the transmittance cut-off edge in the short wavelength range, given by the wavelengths at 80 % and 5 % transmittance including reflection losses
Source document of definition	ISO 12123:2010
Note	The colour code lists the wavelengths $\lambda 80$ and $\lambda 5$, at which the transmittance (including reflection losses) is 0,80 and 0,05 at 10 mm thickness. The values are rounded to 10 nm and are written by eliminating the last digit. For example, colour code 33/30 indicates $\lambda 80 = 330$ nm and $\lambda 5 = 300$ nm.
Remark	The limit of the transmittance ranges of optical glasses towards the UV area is of special interest in high index glasses as it shifts closer to the visible spectral range with increasing refractive index. A simple description of the position and slope of the UV absorption curve is described by the colour code.
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A57
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.16 ISOTC172-AAA033-001: direction of curvature of an optical surface

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA033-001.023
Preferred name*	direction of curvature of an optical surface
Short name	
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	characteristic of the curvature of an optical surface
Source document of definition	adapted from ISO 10110-1:2006
Note	For drawings the plane surfaces are indicated by the symbol R_{∞} .
Remark	
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A58
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	String
Value specification	CODED
List of values	cc
	cx
	$ \infty $
List of value names	concave
	convex
	planar
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA007-001
Preferred name of definition class	optically used surface
Keyword	convex\concave\planar
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.17 ISOTC172-AAA072-001: identification of visible surface changes

Hierarchy	Properties
Identifier	ISOTC172-A A A072-001.031
[Information supplier-Code*-Version*-	
Revision*]	
Preferred name*	identification of visible surface changes
Short name	
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	representation of visible surface changes in the form of digits that follows the class number for alkali, acid and phosphate resistance
Source document of definition	
Note	
Remark	
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	
Type of property	С
D = dependent; N = non-dependent; C = condition	
Depends on	
Domain*:	
Property type classification	Integer
Value specification	EXPLICIT
List of values	0
	1
	2
	3
	4
List of value names	no visible changes
2.5. 51 74145 11411165	clear, but irregular surface
	interference colours (light, selective leaching)
	firmly adhered thin white layer (stronger, selective leaching, cloudy surface)
	loosely adhering, thicker layers, for example insoluble reaction products on the surface
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA072-001.031
Preferred name*	identification of visible surface changes
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.18 ISOTC172-AAA076-001: internal transmittance

Hierarchy	Properties
Identifier	ISOTC172-AAA076-001.026
[Information supplier-Code*-Version*-	13010172-AAA070-001.020
Revision*]	
Preferred name*	internal transmittance
Short name	रां
Synonymous name	
Preferred symbol	τἱ
Synonymous symbol	
Definition*	ratio of the radiant flux reaching the exit internal surface of the optical glass to the flux that enters into the glass after crossing the entry surface
Source document of definition	
Note	Thus internal transmittance is independent of reflection losses at the boundary surfaces air-glass and glass-air. Internal transmittance is closely related to the optical position of the glass type according to general dispersion theory. The information in the data section comprises median values from several melts of a glass type.
Remark	Upon special request optimized values for internal transmittance can be maintained. Prior clarification of the delivery situation is required.
	ISO 25297-1:2012, NODIF: transmittance
Formula	
Unit of measure*	1
UN ECE code for unit	C62
Alternative unit	
IEC classification	L40
$\label{eq:condition} \begin{split} & \textbf{Type of property} \\ & \textbf{D} = \text{dependent}; \ \textbf{N} = \text{non-dependent}; \\ & \textbf{C} = \text{condition} \end{split}$	D
Depends on	ISOTC172-AAA047-001
	ISOTC172-AAA086-001
Domain*:	·
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172

6.19 ISOTC172-AAA078-001: Knoop hardness per ISO 9385:1990

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA078-001.023
Preferred name*	Knoop hardness per ISO 9385:1990
Short name	HK 0,1/20
Synonymous name	
Preferred symbol	HK 0,1/20
Synonymous symbol	
Definition*	measure for remaining surface changes after applying pressure with a test diamond
Source document of definition	ISO 9385:1990
Note	The test is performed on polished glass surfaces at temperature from 18 °C to 28 °C. The values for Knoop hardness HK are listed in the data sheets for a test force of 0,9807 N and an effective test period of 20 s. The data for hardness values are rounded to 10 HK 0,1/20.
Remark	The microhardness is a function of the magnitude of the test force and decreases with increasing test force.
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A57
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	Integer
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.20 ISOTC172-AAA046-001: manipulation of light

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA046-001.026
Preferred name*	manipulation of light
Short name	manipulation
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	kind of manipulation of light spread at optical surfaces
Source document of definition	
Note	
Remark	
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A56
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	Real
Value specification	CODED
List of values	10
	20
List of value names	dioptric
	diffractive
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA007-001
Preferred name of definition class	optically used surface
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

6.21 ISOTC172-AAA029-001: manufacturer of optical glass

Hierarchy	Properties
Identifier	ISOTC172-AAA029-001.039
[Information supplier-Code*-Version*-Revision*]	
Preferred name*	manufacturer of optical glass
Short name	manufacturer of optical glass
	manuracturer
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	company name of the manufacturer of optical glass
Source document of definition	
Note	
Remark	
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A21
Type of property	N
D = dependent; N = non-dependent; C = condition	
Depends on	
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA010-001
Preferred name of definition class	optical glass
Keyword	manufacturer\company\supplier
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.22 ISOTC172-AAA088-001: material imperfection

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA088-001.017
Preferred name*	material imperfection
Short name	2/
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	indication in drawings of material imperfections in complete form started with the string 2/
Source document of definition	adapted from ISO 10110-4
Note	
Remark	
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A59
Type of property D = dependent; N = non-dependent; C = condition	D
Depends on	ISOTC172-AAA042-001
	ISOTC172-AAA067-001
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.23 ISOTC172-AAA037-001: material imperfection in terms of bubbles and inclusions

Hierarchy	Properties
Identifier	ISOTC172-AAA037-001.022
[Information supplier-Code*-Version*-	
Revision*]	water lating a feetler in to some a flexibility and in the lating
Preferred name*	material imperfection in terms of bubbles and inclusions
Short name	1/
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	specification for bubbles and other inclusions which are permissible in the element given in the form N×A, where
	N is the number of bubbles and inclusions of maximal permitted size allowed, and
	the grade number A is the measure of their size and is equal to the square root of the projected area of the largest permissible bubble and/or inclusion, expressed in millimetres
Source document of definition	ISO 10110-3:1996
Note	This property refers to optical elements.
Remark	ISO 25297-1:2012, NODIF: bubbles_and_inclusions
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A59
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element
Keyword	bubble\inclusion\material imperfection
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.24 ISOTC172-AAA060-001: material imperfection in terms of stress birefringence

Hierarchy	Properties
Identifier	ISOTC172-AAA060-001.022
[Information supplier-Code*-Version*- Revision*]	10010112-AAA000-001.022
Preferred name*	material imperfection in terms of stress birefringence
Short name	0/
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	result of residual stresses within a glass blank following differential cooling during the forming and/or annealing process, or of certain fabrication processes carried out on the optical element
Source document of definition	ISO 10110-2:1996
Note	The residual stress-induced birefringence is specified in terms of optical path differences per unit path length, in nanometres per centimetre. The indication is given in the form 0/A, where A is the maximum permissible stress birefringence in nanometres per centimetre of optical path length.
	This property refers to optical elements.
Remark	ISO 25297-1:2012, NODIF: stress_birefringence
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A59
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element
Keyword	material homogeneity\birefringence\polarization\anisotropy\material isotropy
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.25 ISOTC172-AAA042-001: material imperfections in terms of striae

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA042-001.023
Preferred name*	material imperfections in terms of striae
Short name	2/, B
Synonymous name	
Preferred symbol	В
Synonymous symbol	
Definition*	class of striae according to ISO 10110-4
Source document of definition	ISO 10110-4:1997
Note	The striae classes describe the density of striae causing an optical path difference of at least 30 nm. This property refers to optical elements.
Remark	ISO 25297-1:2012, NODIF: inhomogeneity_and_striae
Formula	100 20207-1.2012, NODII . IIIIIOIIIOYEIIEILY_alia_sulae
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A59
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	String
Value specification	CODED
List of values	-
	1
	2
	3
	4
	5
List of value names	no specification required
	≤ 10 %
	≤ 5 %
	≤ 2 %
	\[\leq 1 \% \]
	extremely free of striae
Value format	
Identification class instance types	
Figure	07.000
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element
Keyword	material imperfection\striae
Status	60.60 released

ISO 23584-2:2012(E)

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*-Revision*]	ISOTC172-AAA042-001.023
Preferred name*	material imperfections in terms of striae
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.26 ISOTC172-AAA067-001: material imperfections of refractive index

Hierarchy	Properties
Identifier	ISOTC172-AAA067-001.029
[Information supplier-Code*-Version*-Revision*]	ISSTOTE AAASST SST.SES
Preferred name*	material imperfections of refractive index
Short name	2/ A
Synonymous name	
Preferred symbol	A
Synonymous symbol	
Definition*	inhomogeneity class number according ISO 10110-4 describing the maximum permissible variation of the refractive index within an optical element
Source document of definition	
Note	This property refers to optical elements.
Remark	Inhomogeneity as defined by ISO 10110-4:1997 is: gradual variation of the refractive index within an optical element, defined as the difference between maximum and minimum values of the refractive index within the element.
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A59
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	String
Value specification	CODED
List of values	-
	0
	1
	2
	3
	4
	5
List of value names	no specification required
List of value flames	+- 50 E-6
	+- 20 E-6
	+- 5 E-6
	+- 2 E-6
	+- 1 E-6
	+- 0,5 E-6
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element

ISO 23584-2:2012(E)

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA067-001.029
Preferred name*	material imperfections of refractive index
Keyword	homogeneity\inhomogeneity\material imperfection
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.27 ISOTC172-AAA050-001: mathematical description of surface

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA050-001.035
Preferred name*	mathematical description of surface
Short name	
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	designation in an analytic definition of the surface or the wavefront
Source document of definition	
Note	
Remark	
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A58
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	Real
Value specification	CODED
List of values	10
	20
List of value names	analytical
	not analytical
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA006-001
Preferred name of definition class	dioptric surface
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.28 ISOTC172-AAA058-001: $n(\lambda)$ as per Sellmeier-equation

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA058-001.019
Preferred name*	n(λ) as per Sellmeier-equation
Short name	n(λ) Sellm
Synonymous name	
Preferred symbol	$n(\lambda)$
Synonymous symbol	
Definition*	refractive index as per the Sellmeier-equation $n^2(\lambda) = 1 + B1 \ \lambda^2/(\lambda^2 - C1) + B2 \ \lambda^2/(\lambda^2 - C2) + B3 \ \lambda^2/(\lambda^2 - C3)$ using the coefficients B1 to B3 and C1 to C3 of the Sellmeier-equation
Source document of definition	
Note	In data sheets the coefficients of the Sellmeier-equation are usually given dimensionless; therefore, for correct calculation using this equation, the wavelength shall be in micrometres.
Remark	
Formula	
Unit of measure*	1
UN ECE code for unit	C62
Alternative unit	
IEC classification	L44
Type of property D = dependent; N = non-dependent; C = condition	D
Depends on	ISOTC172-AAA056-001
	ISOTC172-AAA035-001
	ISOTC172-AAA054-001
	ISOTC172-AAA053-001
	ISOTC172-AAA038-001
	ISOTC172-AAA059-001
	ISOTC172-AAA047-001
Domain*:	15010172-AAA047-001
Property type classification	Real
Value specification	real
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	01.060\17.180\37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	dispersion equation\dispersion\refractive index
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
Owner 1000	101720000

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA058-001.019
Preferred name*	n(λ) as per Sellmeier-equation
liaisonTCSC	TC172
ebXML URI	

6.29 ISOTC172-AAA048-001: name of an optical coating

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA048-001.019
Preferred name*	name of an optical coating
Short name	
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	distinguishing mark of a coating which is usually formed of a standard number and the standard designation or the name of the company and a common description of the coating
Source document of definition	
Note	
Remark	This could be a proprietary designation e.g. a brand name such as T*.
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A57
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA013-001
Preferred name of definition class	functional coating
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.30 ISOTC172-AAA066-001: glass type

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA066-001.023
Preferred name*	glass type
Short name	glass type
Synonymous name	glass type
Preferred symbol	
Synonymous symbol	
Definition*	usually a letter/number designation used in the manufacturer's catalogue to designate or characterize the glasses offered
Source document of definition	ISO 12123:2010
Note	The letter/number designation is at the manufacturer's discretion and is usually a proprietary trade name and therefore indeterminate. For example, borosilicate crown glass is designated N-BK7, S-BSL7, BSC7, J-BK7, H-K9 and so on by individual glass manufacturers.
Remark	
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A57
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA010-001
Preferred name of definition class	optical glass
Keyword	material\glass
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC3
liaisonTCSC	TC172
ebXML URI	

6.31 ISOTC172-AAA043-001: optically effective diameter

Identifier [Information supplier-Code*-Version*- Revision*] Preferred name* optically effective diameter	Hierarchy	Properties
Revision*] Preferred name* Short name Synonymous name Preferred symbol Synonymous symbol Definition* Source document of definition Note Optically effective diameter of a surface Source document of definition Note Optically effective diameter defines the region of the component surface which has optically disparling and easing ea	-	
Preferred name* Short name Synonymous name Preferred symbol Øe Synonymous symbol Definition* Optically effective diameter of a surface Source document of definition Note Optically effective diameter defines the region of the component surface which has optical significance. Remark ISO 25297-1:2012, NODIF: effective_diameter Formula Unit of measure* mm UN ECE code for unit Alternative unit IEC classification T03 Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real Value specification List of values List of value names Value format		
Short name Synonymous name Preferred symbol Preferred symbol Optically usable diameter of a surface Source document of definition Note Optically effective diameter defines the region of the component surface which has optical significance. Remark ISO 25297-1:2012, NODIF: effective_diameter Formula Unit of measure* UN ECE code for unit Alternative unit IEC classification T03 Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real Value specification List of values List of value names Value format	•	
Synonymous name Preferred symbol Øe Synonymous symbol Definition* optically usable diameter of a surface Source document of definition Note Optically effective diameter defines the region of the component surface which has optical significance. Remark ISO 25297-1:2012, NODIF: effective_diameter Formula Unit of measure* mm UN ECE code for unit MMT Alternative unit IEC classification T03 Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real Value specification List of values List of value names Value format		optically effective diameter
Preferred symbol Øe Synonymous symbol Definition* optically usable diameter of a surface Source document of definition Note Optically effective diameter defines the region of the component surface which has optically significance. Remark ISO 25297-1:2012, NODIF: effective_diameter Formula Unit of measure* mm UN ECE code for unit MMT Alternative unit IEC classification T03 Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real Value specification List of values List of value names Value format		
Synonymous symbol Definition* optically usable diameter of a surface Source document of definition Note Optically effective diameter defines the region of the component surface which has optically significance. Remark ISO 25297-1:2012, NODIF: effective_diameter Formula Unit of measure* mm UN ECE code for unit MMT Alternative unit IEC classification T03 Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real Value specification List of values List of value names Value format		
Definition* optically usable diameter of a surface Source document of definition Note Optically effective diameter defines the region of the component surface which has optical significance. Remark ISO 25297-1:2012, NODIF: effective_diameter Formula Unit of measure* mm UN ECE code for unit MMT Alternative unit IEC classification T03 Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real Value specification Real List of values List of value names Value format	-	Øe
Source document of definition Note Optically effective diameter defines the region of the component surface which has optical significance. Remark ISO 25297-1:2012, NODIF: effective_diameter Formula Unit of measure* MMT Alternative unit IEC classification To3 Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real Value specification List of values List of value names Value format		
Note Optically effective diameter defines the region of the component surface which has optical significance. Remark ISO 25297-1:2012, NODIF: effective_diameter Formula Unit of measure* mm UN ECE code for unit Alternative unit IEC classification To3 Type of property		optically usable diameter of a surface
Significance.	Source document of definition	
Formula Unit of measure* mm UN ECE code for unit MMT Alternative unit IEC classification T03 Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real Value specification List of values List of value names Value format	Note	Optically effective diameter defines the region of the component surface which has optical significance.
Unit of measure* mm UN ECE code for unit MMT Alternative unit IEC classification T03 Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real R	Remark	ISO 25297-1:2012, NODIF: effective_diameter
UN ECE code for unit Alternative unit IEC classification Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real Value specification List of values List of value names Value format	Formula	
Alternative unit IEC classification Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real Value specification List of values List of value names Value format	Unit of measure*	mm
IEC classification Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real Value specification List of values List of value names Value format	UN ECE code for unit	MMT
Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real Value specification List of values List of value names Value format	Alternative unit	
D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Real Value specification List of values List of value names Value format	IEC classification	T03
Domain*: Property type classification Real Value specification List of values List of value names Value format	D = dependent; N = non-dependent;	N
Property type classification Real Value specification List of values List of value names Value format	Depends on	
Value specification List of values List of value names Value format	Domain*:	
List of values List of value names Value format	Property type classification	Real
List of value names Value format	Value specification	
Value format	List of values	
	List of value names	
Identification class instance types	Value format	
	Identification class instance types	
Figure	Figure	
Classification to ICS* 37.020	Classification to ICS*	37.020
Definition class* ISOTC172-AAA011-001	Definition class*	ISOTC172-AAA011-001
Preferred name of definition class optical element	Preferred name of definition class	optical element
Keyword	Keyword	
Status 60.60 released	Status	60.60 released
Date of original definition* 2012-08-15	Date of original definition*	2012-08-15
Date of current version* 2012-08-15	Date of current version*	2012-08-15
Date of current revision* 2012-08-15	Date of current revision*	2012-08-15
ownerTCSC* TC172SC01	ownerTCSC*	TC172SC01
liaisonTCSC TC172	liaisonTCSC	TC172
ebXML URI	ebXML URI	

6.32 ISOTC172-AAA040-001: partial dispersion

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA040-001.018
Preferred name*	partial dispersion
Short name	n(1)-n(2)
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	difference between the refractive indices of wavelength combinations other than those for the principal dispersions
Source document of definition	ISO 9802:1996
Note	
Remark	According to ISO 9802:1996, nF'-nC' and nF-nC are designated as principal dispersion.
Formula	
Unit of measure*	1
UN ECE code for unit	C62
Alternative unit	
IEC classification	L44
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	01.060\17.180\37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	principal dispersion\partial dispersion
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.33 ISOTC172-AAA039-001: principal dispersion (nF' - nC')

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA039-001.027
Preferred name*	principal dispersion (nF' - nC')
Short name	nF'-nC'
Synonymous name	principal dispersion F' - C'
Preferred symbol	
Synonymous symbol	
Definition*	difference between refractive indices represented by (nF'-nC'), where nF' is the refractive index at the blue cadmium F'-line (479,99 nm wavelength), and nC' is the refractive index at the red cadmium C'-line (643,85 nm wavelength)
Source document of definition	ISO 9802:1996
Note	
Remark	
Formula	
Unit of measure*	1
UN ECE code for unit	C62
Alternative unit	
IEC classification	L44
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	partial dispersion\principal dispersion\refractive index
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.34 ISOTC172-AAA062-001: principal dispersion (nF - nC)

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA062-001.027
Preferred name*	principal dispersion (nF - nC)
Short name	nF-nC
Synonymous name	principal dispersion F-C
Preferred symbol	nF-nC
Synonymous symbol	
Definition*	difference between refractive indices represented by (nF-nC), where nF is the refractive index at the blue hydrogen F-line (486,13 nm wavelength), and nC is the refractive index at the red hydrogen C-line (656,27 nm wavelength)
Source document of definition	ISO 9802:1996
Note	
Remark	
Formula	
Unit of measure*	1
UN ECE code for unit	C62
Alternative unit	
IEC classification	L44
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	partial dispersion\principal dispersion\refractive index
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.35 ISOTC172-AAA073-001: phosphate resistance

Hierarchy	Properties
Identifier	ISOTC172-AAA073-001.023
[Information supplier-Code*-Version*-Revision*]	
Preferred name*	phosphate resistance
Short name	PR
Synonymous name	
Preferred symbol	PR
Synonymous symbol	
Definition*	information about the behaviour of the surface of optical glasses during cleaning with phosphate containing washing solutions (detergents)
Source document of definition	ISO 9689:1990
Note	Phosphate Resistance is classified by the Phosphate Resistance Class number and the Identification of Visible Surface Changes number separated by "." If no Identification of Visible Surface Changes has been done, only the Phosphate Resistance Class number is given.
Remark	Example 2.1
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A57
Type of property D = dependent; N = non-dependent; C = condition	D
Depends on	ISOTC172-AAA071-001
	ISOTC172-AAA072-001
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.36 ISOTC172-AAA071-001: phosphate resistance class

Hierarchy	Properties
Identifier	ISOTC172-AAA071-001.040
[Information supplier-Code*-Version*- Revision*]	1301C172-AAA071-001.040
Preferred name*	phosphate resistance class
Short name	PR
Synonymous name	
Preferred symbol	PR
Synonymous symbol	
Definition*	of optical glasses is determined on the basis of the time required to remove a layer
	thickness of glass of 0,1 µm in an alkaline phosphate containing solution (pentasodium triphosphate Na5P3O10, c = 0,01 mol/l, pH = 10) at a temperature of 50 °C
Source document of definition	ISO 9689:1990
Note	The layer thickness is calculated from the mass loss per surface area and the density of the glass.
Remark	
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A52
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	Integer
Value specification	EXPLICIT
List of values	1
	2
	3
	4
List of value names	PR 1
List of value flames	PR 2
	PR 3
	PR 4
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03

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Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA071-001.040
Preferred name*	phosphate resistance class
liaisonTCSC	TC172
ebXML URI	

6.37 ISOTC172-AAA030-001: primary function of the coating

Hierarchy	Properties
Identifier	ISOTC172-AAA030-001.045
[Information supplier-Code*-Version*- Revision*]	1301C172-AAA030-001.045
Preferred name*	primary function of the coating
Short name	function
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	the nature of the principal modification to the surface properties that they bring about
Source document of definition	ISO 9211-1:2010
Note	
Remark	
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A56
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	String
Value specification	CODED
List of values	AB
	BS
	FI
	PC
	PO
	AT
	RE
	AR
	SC
	SU
List of value names	absorbing
	beam splitting
	filtering
	phase changing
	polarizing
	attenuating
	reflecting
	antireflecting
	selecting or combining
	supplementary
Value format	

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Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA030-001.045
Preferred name*	primary function of the coating
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA013-001
Preferred name of definition class	functional coating
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.38 ISOTC172-AAA061-001: refractive index

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA061-001.014
Preferred name*	refractive index
Short name	
Synonymous name	
Preferred symbol	n
Synonymous symbol	
Definition*	ratio of the velocity of the electromagnetic waves in a vacuum to the phase velocity of the waves of the monochromatic radiation in the medium
Source document of definition	IEC 60050(845-04-101):1987
Note	depends on the wavelength
Remark	
Formula	
Unit of measure*	1
UN ECE code for unit	C62
Alternative unit	
IEC classification	L44
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	01.060\17.180\37.020
Definition class*	ISOTC172-AAA008-001
Preferred name of definition class	quantities of light and related electromagnetic radiations
Keyword	refractive index
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

6.39 ISOTC172-AAA068-001: refractive index at spectral wavelength

Identifier Information supplier-Code*-Version*- Revision*] Refractive index at spectral wavelength	Hierarchy	Properties
Information supplier-Code*-Version*- Revision*] Preferred name* Preferred symbol Synonymous name Preferred symbol Synonymous symbol Definition* Source document of definition Note Remark ISO 25297-1:2012, NODIF: refractive_index Formula Unit of measure* Unit of measure* Unit esseries IEC classification Alternative unit IEC classification L44 Type of property Depends on Depends on Depends on Depends on ISOTC172-AAA031-001 Domain*: Property type classification Value specification List of value names List of value names List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status Date of current revision* 2012-08-15 Date of current revision* 2012-08-1		
Preferred name* refractive index at spectral wavelength Short name Synonymous name Preferred symbol Synonymous symbol Definition* refractive index at special wavelength of spectral lines Source document of definition Note Remark ISO 25297-1:2012, NODIF: refractive_index Formula Unit of measure* UN ECE code for unit Alternative unit IEC classification L44 Type of property D - dependent; N - non-dependent; C - condition Depends on ISOTC172-AAA031-001 Domain*: Property type classification Real Value specification List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* Frefered name of definition class of pate of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 OwnerTCSC* TIME AAD AAD AAD AAD AAD AAD AAD AAD AAD AA	[Information supplier-Code*-Version*-	13010112-AAA000-001.020
Short name Synonymous name Preferred symbol Synonymous symbol Definition* refractive index at special wavelength of spectral lines Source document of definition Note Remark ISO 25297-1:2012, NODIF: refractive_index Formula Unit of measure* UNI ECE code for unit Alternative unit EIEC classification L44 Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA031-001 Domain*: Property type classification Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 OwnerTCSC* TC172 NODIF: refractive inies Preferred ame of definition of a 2012-08-15 OwnerTCSC* TC172 NODIF: refraction inies Special wavelength of spectral lines Special wavelength of special wavelength Special wavelength of special wavelength of special wavelength Spec	<u>'</u>	
Synonymous name Preferred symbol Synonymous symbol Definition' refractive index at special wavelength of spectral lines Source document of definition Note Remark ISO 25297-1:2012, NODIF: refractive_index Formula Unit of measure' Unit of measure' UN ECE code for unit Alternative unit IEC classification L44 Type of property D - dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA031-001 Domain': Property type classification Real List of values List of value names List of value names Identification class instance types Figure Classification to ICS* Official material Keyword Status Ob 60 060 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current version* 2012-08-15 Date of current revision*		refractive index at spectral wavelength
Preferred symbol Synonymous symbol Definition* refractive index at special wavelength of spectral lines Source document of definition Note Remark ISO 25297-1:2012, NODIF: refractive_index Formula Unit of measure* Unit of measure* Unit Ec Cabo for unit Alternative unit IEC classification L44 Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA031-001 Domain*: Property type classification Real List of values List of values List of value names Usit of value names Identification class instance types Figure Classification to ICS* Synony Definition class* Reyword Status Date of current version* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 Date of current version* 2012-08-15 Date of current version* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 Date of current version* 2012-08-		
Synonymous symbol Definition* refractive index at special wavelength of spectral lines Source document of definition Note Remark ISO 25297-1:2012, NODIF: refractive_index Formula Unit of measure* UN ECE code for unit Alternative unit EC classification L44 Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA031-001 Domain*: Property type classification Real Value specification List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released Date of current version* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15		
Definition* refractive index at special wavelength of spectral lines Source document of definition Note Remark ISO 25297-1:2012, NODIF: refractive_index Formula Unit of measure* UN ECE code for unit Alternative unit IEC classification L44 Type of property D - dependent; N = non-dependent; C = condition Domain*: Property type classification Real Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released Date of current version* 2012-08-15 Date of current revision* 2012-08-15 Date of current version* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 Date of current version*		
Source document of definition Note Remark ISO 25297-1:2012, NODIF: refractive_index Formula Unit of measure* UN ECE code for unit Alternative unit IEC classification L44 Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA031-001 Domain*: Property type classification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37,020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released Date of current version* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15	Synonymous symbol	
Note Remark	Definition*	refractive index at special wavelength of spectral lines
Remark ISO 25297-1:2012, NODIF: refractive_index Formula Unit of measure* UN ECE code for unit Alternative unit IEC classification L44 Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA031-001 Domain*: Property type classification Real Value specification List of values List of values List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current revision*	Source document of definition	
Formula Unit of measure* UN ECE code for unit Alternative unit IEC classification L44 Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA031-001 Domain*: Property type classification Alter of values List of values List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current revision* 2012-08-15 Date of current revision* 2012-08-15 Date of current revision* 2012-08-15 OwnerTCSC* TC172	Note	
Unit of measure* UN ECE code for unit Alternative unit IEC classification L44 Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA031-001 Domain*: Property type classification Real Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current revision* 2012-08-15 Date of current revision* O D L44 D D Classification L44 D D D Classification L30 Classif	Remark	ISO 25297-1:2012, NODIF: refractive_index
UN ECE code for unit Alternative unit IEC classification L44 Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA031-001 Domain*: Property type classification Real Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current revision* 2012-08-15 OwnerTCSC* TC172	Formula	
Alternative unit IEC classification L44 Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA031-001 Domain*: Property type classification Real Value specification List of values List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current revision* 2012-08-15 OwnerTCSC* TC172	Unit of measure*	
IEC classification L44 Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA031-001 Domain*: Property type classification Real Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current revision* 2012-08-15 Date of current revision* 2012-08-15 OwnerTCSC* TC172	UN ECE code for unit	
Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA031-001 Domain*: Property type classification Real Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current revision* 2012-08-15 OwnerTCSC* TC172	Alternative unit	
D'= dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA031-001 Domain*: Property type classification Real Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15	IEC classification	L44
Domain*: Property type classification Real Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172	D = dependent; N = non-dependent;	D
Property type classification Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 ownerTCSC* TC172	Depends on	ISOTC172-AAA031-001
Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 ownerTCSC* TC172	Domain*:	
List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 ownerTCSC* TC172	Property type classification	Real
List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172	Value specification	
Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 OwnerTCSC* TC172	List of values	
Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172	List of value names	
Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172	Value format	
Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172	Identification class instance types	
Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172	Figure	
Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172	Classification to ICS*	37.020
Keyword 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172	Definition class*	ISOTC172-AAA002-001
Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172	Preferred name of definition class	optical material
Date of original definition*2012-08-15Date of current version*2012-08-15Date of current revision*2012-08-15ownerTCSC*TC172	Keyword	
Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172	Status	60.60 released
Date of current revision* 2012-08-15 ownerTCSC* TC172	Date of original definition*	2012-08-15
ownerTCSC* TC172	Date of current version*	2012-08-15
	Date of current revision*	2012-08-15
liaisonTCSC	ownerTCSC*	TC172
	liaisonTCSC	
ebXML URI	ebXML URI	

6.40 ISOTC172-AAA052-001: scope according to ICS

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA052-001.041
Preferred name*	scope according to ICS
Short name	scope
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	designation in accordance with ICS 5 which is used as general indication of the scope into which an entity falls
Source document of definition	
Note	
Remark	For the time being, only an extract from the overall ICS 5 has been included in the value list. The remainder of ICS classes may be added at a later stage.
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A91
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	String
Value specification	CODED
List of values	01
	07
	11
	13
	17
	21
	31
	37
List of value names	01 generalities, terminology, standardization, documentation
List of value names	
List of value names	01 generalities, terminology, standardization, documentation 07 mathematics, natural sciences
List of value names	01 generalities, terminology, standardization, documentation
List of value names	01 generalities, terminology, standardization, documentation 07 mathematics, natural sciences 11 health care technology 13 environment, health protection, safety
List of value names	01 generalities, terminology, standardization, documentation 07 mathematics, natural sciences 11 health care technology 13 environment, health protection, safety 17 metrology and measurement
List of value names	01 generalities, terminology, standardization, documentation 07 mathematics, natural sciences 11 health care technology 13 environment, health protection, safety 17 metrology and measurement 21 mechanical systems and components for general use
List of value names	01 generalities, terminology, standardization, documentation 07 mathematics, natural sciences 11 health care technology 13 environment, health protection, safety 17 metrology and measurement 21 mechanical systems and components for general use 31 electronics
	01 generalities, terminology, standardization, documentation 07 mathematics, natural sciences 11 health care technology 13 environment, health protection, safety 17 metrology and measurement 21 mechanical systems and components for general use
Value format	01 generalities, terminology, standardization, documentation 07 mathematics, natural sciences 11 health care technology 13 environment, health protection, safety 17 metrology and measurement 21 mechanical systems and components for general use 31 electronics
Value format Identification class instance types	01 generalities, terminology, standardization, documentation 07 mathematics, natural sciences 11 health care technology 13 environment, health protection, safety 17 metrology and measurement 21 mechanical systems and components for general use 31 electronics
Value format	01 generalities, terminology, standardization, documentation 07 mathematics, natural sciences 11 health care technology 13 environment, health protection, safety 17 metrology and measurement 21 mechanical systems and components for general use 31 electronics

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Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA052-001.041
Preferred name*	scope according to ICS
Definition class*	ISOTC172-AAA004-001
Preferred name of definition class	Definition classes
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

6.41 ISOTC172-AAA049-001: surface adding characteristic

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA049-001.021
Preferred name*	surface adding characteristic
Short name	surface adding
Synonymous name	Surface adding
Preferred symbol	
Synonymous symbol	
Definition*	mark of an optical surface which will be added to another optical surface
Source document of definition	mark of all option surface which will be added to another option surface
Note	
Remark	Typically used for surfaces to be cemented or optically contacted.
Formula	Typically about its barrages to be estimated or optionary contacted.
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A59
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	String
Value specification	CODED
List of values	ce
	ра
List of value names	cemented surface
	optically contacted surface
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element
Keyword	cemented surface\optically contacted surface
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.42 ISOTC172-AAA044-001: surface form deviation - irregularity

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA044-001.020
Preferred name*	surface form deviation - irregularity
Short name	3/ (B,)
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	peak-to-valley difference between the irregularity function and the plane which best approximates it
Source document of definition	ISO 10110-5:2007
Note	B is either the maximum permissible value of irregularity, expressed in fringe spacings, or a dash (—) indicating that no explicit irregularity tolerance is given. The wavelength shall be that of the green mercury e-line 546,07 nm in accordance with ISO 7944.
Remark	ISO 25297-1:2012, NODIF: irregularity
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A59
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.43 ISOTC172-AAA063-001: surface form deviation - rotationally invariant irregularity

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA063-001.021
Preferred name*	surface form deviation - rotationally invariant irregularity
Short name	3/ (/ C)
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	peak-to-valley difference between the approximating spherical surface and the plane which best approximates it
Source document of definition	ISO 10110-5:2007
Note	C is the permissible rotationally invariant irregularity expressed in fringe spacings. If no tolerance is given, the slash (/) is replaced by the final parenthesis, i.e. 3/A(B). The wavelength shall be that of the green mercury e-line 546,07nm in accordance with ISO 7944.
Remark	If no tolerance is given for C, the slash / and value of C are omitted, and the indication in the drawings just ends with the final parenthesis).
	ISO 25297-1:2012, NODIF: rotationally_symmetric_irregularity
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A59
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.44 ISOTC172-AAA065-001: surface form deviation - sagitta deviation

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA065-001.019
Preferred name*	surface form deviation - sagitta deviation
Short name	3/ A
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	peak-to-valley difference between the approximating spherical surface and a plane
Source document of definition	ISO 10110-5:2007
Note	A is either the maximum permissible sagitta error, expressed in fringe spacings, $(\lambda/2)$ or a dash (—) indicating that the total radius of curvature tolerance is given in the radius of curvature dimension (not applicable for planar surfaces). The wavelength shall be that of the green mercury e-line 546,07 nm in accordance with ISO 7944.
Remark	ISO 25297-1:2012, NODIF: sagitta_deviation
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A59
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.45 ISOTC172-AAA087-001: surface imperfections

	Hierarchy	Properties
Short name 5/ Synonymous name 1 Preferred symbol 5/ Synonymous symbol 1 Definition* indication in drawings of surface imperfections in complete form started with the string 5/ Source document of definition adapted from ISO 10110-7 Note 8 Remark ISO 25297-1:2012, NODIF: surface_imperfection_tolerance Formula 1 Unit of measure* 1 UN ECE code for unit 4 Alternative unit 1 IEC classification A59 Type of property 2 De dependent, N = non-dependent, C = condition 1 C = condition 1 Depends on ISOTC172-AAA084-001 ISOTC172-AAA054-001 ISOTC472-AAA054-001 SOTC172-AAA054-001 ISOTC472-AAA054-001 SOTC472-AAA054-001 ISOTC472-AAA054-001 Usis of value SIT Value format Identification class instance types Intentification class instance types Figure ISOTC472-AAA011-001 Proferred name of definition	[Information supplier-Code*-Version*-	ISOTC172-AAA087-001.018
Synonymous name Freferred symbol 5/ Synonymous symbol Formula Definition* indication in drawings of surface imperfections in complete form started with the string 5/ Source document of definition adapted from ISO 10110-7 Note Formula Bemark ISO 25297-1:2012, NODIF: surface_imperfection_tolerance Formula Formula Unit of measure* A59 Type of property D D = dependent, N = non-dependent; C = condition A59 Tourity of property D D D = dependent, N = non-dependent; C = non-dependent; Sortification Sortification List Sortification Sortification List Sortification List Sortification Sortification List Sortification Sortification List Sortification List Sortification String Sortifi	Preferred name*	surface imperfections
Preferred symbol 5/ Synonymous symbol Indication in drawings of surface imperfections in complete form started with the string 5/ Source document of definition adapted from ISO 10110-7 Note Femank Formula ISO 25297-1:2012, NODIF: surface_imperfection_tolerance Formula Image: Im	Short name	5/
Synonymous symbol Indication in drawings of surface imperfections in complete form started with the string 5/8 adapted from ISO 10110-7 Source document of definition of adapted from ISO 10110-7 Adapted from ISO 10110-7 Note Promode Remark ISO 25297-1:2012, NODIF: surface_imperfection_tolerance Formula Image:	Synonymous name	
Definition* indication in drawings of surface imperfections in complete form started with the string 5/ Source document of definition adapted from ISO 10110-7 Note ISO 25297-1:2012, NODIF: surface_imperfection_tolerance Formula ISO 25297-1:2012, NODIF: surface_imperfection_tolerance Formula ISO 25297-1:2012, NODIF: surface_imperfection_tolerance Unit of measure* ISO 25297-1:2012, NODIF: surface_imperfection_tolerance Unit of measure* ISO 25297-1:2012, NODIF: surface_imperfection_tolerance Unit of measure* ISO 25297-1:2012, NODIF: surface_imperfection_tolerance IEC classification A59 Use of property Defendent: No Incomplete form started with the string 5/ Depends on ISOTCH72-AAA064-001 ISOTCH72-AAA064-001 ISOTCH72-AAA064-001 ISOTCH72-AAA064-001 ISOTCH72-AAA064-001 ISOTCH72-AAA064-001 ISOTCH72-AAA064-001 Demain* String Value specification String List of value names IsoTCH72-AAA064-001 List of value names IsoTCH72-AAA011-001 Use of value IsoTCH72-AAA011-001 Classification to ICS* 37.020<	Preferred symbol	5/
Source document of definition adapted from ISO 10110-7 Note ISO 25297-12012, NODIF: surface_imperfection_tolerance Formula ISO 25297-12012, NODIF: surface_imperfection_tolerance Unit of measure* ISO 25297-12012, NODIF: surface_imperfection_tolerance Unit of measure* ISO CELS (ISO ISO ISO ISO ISO ISO ISO ISO ISO ISO	Synonymous symbol	
Note Remark ISO 25297-1;2012, NODIF: surface_imperfection_tolerance Formula Image: Imperfection_tolerance Unit of measure* Image: Imperfection_tolerance UN ECE code for unit Image: Imag	Definition*	indication in drawings of surface imperfections in complete form started with the string 5/
Remark ISO 25297-1:2012, NODIF: surface_imperfection_tolerance Formula Image:	Source document of definition	adapted from ISO 10110-7
Formula Unit of measure* Incompany of the Control of Measure* Incompany of the Contro	Note	
Unit of measure* UN ECE code for unit Alternative unit IEC classification A59 Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA064-001 ISOTC172-AAA061-001 ISOTC172-AAA034-001 ISOTC172-AAA034-001 ISOTC172-AAA034-001 ISOTC172-AAA034-001 Domain*: Property type classification String Value specification String Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* Definition class* ISOTC172-AAA011-001 Preferred name of definition class Keyword Status 60.60 released Date of current version* 2012-08-15 Date of current revision* 2012-08-15 OwnerTCSC* ITC172-SCACO ISOTC172-SCACO ITC172-SCACO IT	Remark	ISO 25297-1:2012, NODIF: surface_imperfection_tolerance
UN ECE code for unit Alternative unit IEC classification A59 Type of property De dependent, N = non-dependent; C = condition D Depends on Expends on Loss of the property of the propert	Formula	
Alternative unit A59 Type of property D = dependent; N = non-dependent; C = condition D Depends on C = condition ISOTC172-AAA064-001 ISOTC172-AAA064-001 ISOTC172-AAA061-001 ISOTC172-AAA031-001 ISOTC172-AAA034-001 Domain*: Froperty type classification Value specification String Value specification List of values List of value names Identification class instance types Figure ISOTC172-AAA011-001 Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class optical element Keyword Status Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 OwnerTCSC* TC172SC01 IlaisonTCSC TC172	Unit of measure*	
IEC classification A59 Type of property D = dependent; N = non-dependent; C = condition Pepends on ISOTC172-AAA064-001 ISOTC172-AAA054-001 ISOTC172-AAA051-001 ISOTC172-AAA051-001 ISOTC172-AAA051-001 ISOTC172-AAA034-001 Domain*: Property type classification String Value specification IList of value names List of value names List of value names Figure IClassification to ICS* 37.020 Pefinition class instance types Figure ISOTC172-AAA011-001 Preferred name of definition class optical element Keyword Status 60.60 released Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172SC01 IlaisonTCSC 1C172SC01	UN ECE code for unit	
Type of property D = dependent; N = non-dependent; C = condition Pepends on ISOTC172-AAA064-001 ISOTC172-AAA031-001 ISOTC172-AAA034-001 Property type classification Value specification List of value List of value List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class String String Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 OwnerTCSC* TC172SC01 IlaisonTCSC TC172SC01	Alternative unit	
D= dependent; N = non-dependent; C = condition ISOTC172-AAA064-001 ISOTC172-AAA064-001 ISOTC172-AAA051-001 ISOTC172-AAA051-001 ISOTC172-AAA034-001 Domain*: Property type classification String Value specification String List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class Optical element Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172SC01 liaisonTCSC TC172	IEC classification	A59
ISOTC172-AAA041-001 ISOTC172-AAA051-001 ISOTC172-AAA034-001 Domain*: Property type classification String Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class optical element Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 OwnerTCSC* TC172SC01 IlaisonTCSC TC172SC01	D = dependent; N = non-dependent;	D
ISOTC172-AAA051-001 ISOTC172-AAA034-001 Domain*: Property type classification String Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 OwnerTCSC* TC172SC01 IlaisonTCSC String String String String String String String AAA011-001 STRING AAA0	Depends on	ISOTC172-AAA064-001
Domain*: Property type classification String Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class Average of the definition class Average o		ISOTC172-AAA041-001
Domain*: Property type classification String Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class optical element Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 OwnerTCSC* TC172SC01 liaisonTCSC String		ISOTC172-AAA051-001
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Value specification List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 ownerTCSC* TC172 TC172 TC172 TC172 TC172 TC172 TC172 TC172	Domain*:	
List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class optical element Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 OwnerTCSC* TC172 IiaisonTCSC TC172 IiaisonTCSC IIII List of value names List of value names STATUS	Property type classification	String
List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class optical element Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 OwnerTCSC* TC172SC01 IiaisonTCSC ISOTC172-AAA011-001 Classification to ICS* 37.020 ACCIONAL STANDARD	Value specification	
Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class optical element Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172SC01 IiaisonTCSC TC172	List of values	
Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class optical element Keyword *** Status** 60.60 released Date of original definition** 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC** TC172SC01 liaisonTCSC* TC172	List of value names	
Figure 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class optical element Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172SC01 liaisonTCSC TC172	Value format	
Classification to ICS* 37.020 Definition class* ISOTC172-AAA011-001 Preferred name of definition class optical element Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Oate of current revision* 2012-08-15 ownerTCSC* TC172SC01 IiaisonTCSC TC172	Identification class instance types	
Definition class* ISOTC172-AAA011-001 Preferred name of definition class optical element Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* Icinococc TC172	Figure	
Preferred name of definition class optical element Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 OwnerTCSC* TC172SC01 IiaisonTCSC TC172	Classification to ICS*	37.020
Keyword 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172SC01 IliaisonTCSC TC172	Definition class*	ISOTC172-AAA011-001
Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172SC01 IiaisonTCSC TC172	Preferred name of definition class	optical element
Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172SC01 liaisonTCSC TC172	Keyword	
Date of current version* 2012-08-15 Date of current revision* 2012-08-15 ownerTCSC* TC172SC01 liaisonTCSC TC172	Status	60.60 released
Date of current revision* 2012-08-15 ownerTCSC* TC172SC01 liaisonTCSC TC172	Date of original definition*	2012-08-15
ownerTCSC* TC172SC01 liaisonTCSC TC172	Date of current version*	2012-08-15
liaisonTCSC TC172	Date of current revision*	2012-08-15
	ownerTCSC*	TC172SC01
ebXML URI	liaisonTCSC	TC172
	ebXML URI	

6.46 ISOTC172-AAA041-001: surface imperfections - coating blemishes

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA041-001.021
Preferred name*	surface imperfections - coating blemishes
Short name	5/ ;C N'xA'
Synonymous name	
Preferred symbol	С
Synonymous symbol	
Definition*	indication of coating blemishes which are permissible within the effective aperture of a surface, where C is the designation for coating blemishes, N' is the number of allowed blemishes of maximal permitted size and A' the grade number
Source document of definition	ISO 10110-7:2008
Note	
Remark	If no separate indication for coating blemishes is given, it shall be included in the allowable general surface imperfection indication 5/ NxA.
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A59
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element
Keyword	surface imperfection
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.47 ISOTC172-AAA034-001: surface imperfections - edge chips

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA034-001.022
Preferred name*	surface imperfections - edge chips
Short name	5/ ;;;EA"
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	indication for permissible edge chips, where E is the designation for edge chips and the grade number A" specifies the maximum permissible extent of a chip from the physical edge of the surface, or cell in the case of an optical assembly, measured parallel to the surface, in millimetres
Source document of definition	ISO 10110-7:2008
Note	
Remark	
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A59
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element
Keyword	surface imperfection\edge chip\chip
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.48 ISOTC172-AAA051-001: surface imperfections - long scratches

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA051-001.023
Preferred name*	surface imperfections - long scratches
Short name	5/ ; ; LN"xA"
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	indication for long scratches (longer than 2 mm) which are permissible within the effective aperture of a surface, where L is the indication for long scratches, N" is the number of allowed long scratches and the grade number, A" specifies the maximum allowed width of the scratches, expressed in millimetres
Source document of definition	ISO 10110-7:2008
Note	
Remark	
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A59
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element
Keyword	surface imperfection\scratch
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.49 ISOTC172-AAA064-001: surface imperfections-general surface imperfection

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA064-001.021
Preferred name*	surface imperfections-general surface imperfection
Short name	5/ NxA
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	drawing indication for number and size of general surface imperfections, which are permissible within the effective aperture of a surface
Source document of definition	ISO 10110-7:2008
Note	The indication in the form NxA specifies the number, N, of allowed imperfections of maximal permitted size, and the grade number, A, which is equal to the square root of the surface area of the maximum allowed imperfection, expressed in millimetres.
Remark	
Formula	
Unit of measure*	
UN ECE code for unit	
Alternative unit	
IEC classification	A59
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	String
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element
Keyword	surface imperfection
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.50 ISOTC172-AAA084-001: temperature coefficient Δn abs/ ΔT of refractive index

Hierarchy	Properties
Identifier	ISOTC172-AAA084-001.024
[Information supplier-Code*-Version*-Revision*]	
Preferred name*	temperature coefficient \(\Delta n \) abs/\(\Delta T \) of refractive index
Short name	Δn abs/ ΔT
Synonymous name	
Preferred symbol	Δn abs/ ΔT
Synonymous symbol	
Definition*	ratio of refractive index change in vacuum to temperature change at a selected wavelength
Source document of definition	
Note	
Remark	
Formula	
Unit of measure*	10 ⁻⁶ K ⁻¹
UN ECE code for unit	M20
Alternative unit	
IEC classification	
Type of property D = dependent; N = non-dependent; C = condition	D
Depends on	ISOTC172-AAA082-001
	ISOTC172-AAA031-001
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.51 ISOTC172-AAA083-001: temperature coefficient $\Delta n \text{rel}/\Delta T$ of refractive index

Identifier Information supplier-Code*-Version** Revision** Preferred name* temperature coefficient ./nrell/.df of refractive index Anrell.AT Synonymous name Anrell.AT Synonymous symbol Anrell.AT Synonymous symbol Tell of refractive index change at an air pressure of 0,10133·10*6 Pa to temperature change at an air pressure of 0,10133·10*6 Pa	Hierarchy	Properties
Information supplier-Code*-Version*- Revision* Preferred name* temperature coefficient / anrel/.47 of refractive index Short name		
Preferred name* temperature coefficient //nrell/AT of refractive index Short name Arrell/AT Synonymous name Preferred symbol Preferred symbol Arrell/AT Synonymous symbol Interpretative index change at an air pressure of 0,10133·10^6 Pa to temperature change at a selected wavelength Source document of definition ratio of refractive index change at an air pressure of 0,10133·10^6 Pa to temperature change at a selected wavelength Source document of definition The selected wavelength Note Promula Bemark Portuge of prometing the promote of the p		13010172-MAA003-001.023
Short name Arriel/AT Synonymous name Arriel/AT Preferred symbol Arriel/AT Synonymous symbol Tatio of refractive index change at an air pressure of 0,10133-10^6 Pa to temperature change at a selected wavelength Source document of definition Tatio of refractive index change at an air pressure of 0,10133-10^6 Pa to temperature change at a selected wavelength Note Arried/AT Remark Image: Change at a selected wavelength Formula Image: Change at a selected wavelength Unit of measure* 10-6 K-1 Unit of measure* 10-6 K-1 Unit of measure* 10-7 K-1 Unit of measure* 10-8 K-1 Unit of measure* 10-8 K-1 Unit of property D De dependent (N = non-dependent; C = condition D Dependent (N = non-dependent; C = condition D Demain*: Property type classification Real Value specification Real Usit of value 1 Usit of value names 1 Value format 1 Identification class instance types 1	Revision*]	
Synonymous name Aurel/ΔT Synonymous symbol Aurel/ΔT Definition* ratio of refractive index change at an air pressure of 0,10133·10*6 Pa to temperature change at a selected wavelength Source document of definition Tratio of refractive index change at an air pressure of 0,10133·10*6 Pa to temperature change at a selected wavelength Source document of definition Aurel/Aur	Preferred name*	temperature coefficient ∆nrel/∆T of refractive index
Preferred symbol Antel/AT Synonymous symbol Tatio of refractive index change at an air pressure of 0,10133-10^6 Pa to temperature change at a selected wavelength Source document of definition Tatio of refractive index change at an air pressure of 0,10133-10^6 Pa to temperature change at a selected wavelength Note Image: Common to the sure of the	Short name	Δn rel/ ΔT
Synonymous symbol Intio of refractive index change at an air pressure of 0,10133-10^6 Pa to temperature change at a selected wavelength Source document of definition Intio of refractive index change at an air pressure of 0,10133-10^6 Pa to temperature change at a selected wavelength Source document of definition Image: Company of the property of		
Definition* ratio of refractive index change at an air pressure of 0,10133·10^6 Pa to temperature change at a selected wavelength Source document of definition Personance Note Image: Common of the common of		Δn rel/ ΔT
Source document of definition change at a selected wavelength Note Concept of the property of the property of the property of the property type classification Document of the property of the p	Synonymous symbol	
Note Remark Formula Incompany Unit of measure* 10-6 K-1 UN ECE code for unit M20 Alternative unit IEC classification Type of property D = dependent; N = non-dependent; C = condition D Depends on ISOTC172-AAA082-001 ISOTC172-AAA031-001 Domain*: Froperty type classification Value specification Real Value for values IsoTC 172-AAA031-001 Value format Identification class instance types Figure Identification class instance types Figure IsoTC 172-AAA002-001 Classification to ICS* 37.020 Definition class* IsoTC 172-AAA002-001 Preferred name of definition class IsoTC 172-AAA002-001 Preferred name of definition class 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15	Definition*	
Remark 10.6 K·1 Unit of measure* 10.6 K·1 UN ECE code for unit M20 Alternative unit IEC classification Type of property D = dependent; N = non-dependent; C = condition D Depends on Experty D = dependent; N = non-dependent; Sortc172-AAA082-001 ISOTC172-AAA031-001 D Domain*: Property type classification Real Value specification Real List of values Identification class instance types Figure Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of current version* 2012-08-15 Date of current revision* 2012-08-15	Source document of definition	
Formula 10-6 K-1 Unit of measure* 10-6 K-1 UN ECE code for unit M20 Alternative unit IEC classification Type of property De dependent; N = non-dependent; C = condition D Depends on ISOTC172-AAA082-001 ISOTC172-AAA031-001 Domain*: ISOTC172-AAA031-001 Property type classification Real Value specification ISOTC172-AAA031-001 List of values ISOTC172-AAA031-001 List of values ISOTC172-AAA0031-001 Value format Identification class instance types Figure Identification to ICS* Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Optical material Keyword ISOTC172-AAA002-001 Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15	Note	
Unit of measure* 10.6 K·1 UN ECE code for unit M20 Alternative unit IEC classification Type of property D = dependent, C = condition D Depends on (BOTC172-AAA082-001 (BOTC172-AAA031-001) ISOTC172-AAA031-001 Domain*: Property type classification Property type classification Real Ust of values Isot of value names Value format Identification class instance types Figure Isot Classification to ICS* Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current revision* 2012-08-15	Remark	
UN ECE code for unit M20 Alternative unit IEC classification Type of property D = dependent; N = non-dependent; C = condition D	Formula	
Alternative unit IEC classification Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA082-001 ISOTC172-AAA031-001 Domain*: Property type classification Real List of values List of values List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current revision* 2012-08-15 Date of current revision* 2012-08-15	Unit of measure*	10 ⁻⁶ K ⁻¹
IEC classification Type of property D = dependent; N = non-dependent; C = condition D Depends on (SOTC172-AAA082-001 (SOTC172-AAA031-001) ISOTC172-AAA031-001 Domain*: Property type classification Real Value specification Isot of values List of value names Isot of value names Value format Identification class instance types Figure IsoTC172-AAA002-001 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15	UN ECE code for unit	M20
Type of property D = dependent; N = non-dependent; C = condition Depends on ISOTC172-AAA082-001 ISOTC172-AAA031-001 Domain*: Property type classification Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current revision* 2012-08-15	Alternative unit	
D = dependent; N = non-dependent; C = condition ISOTC172-AAA082-001 Depends on ISOTC172-AAA0831-001 Domain*: Property type classification Value specification Real List of values List of value names Value format Identification class instance types Figure Classification to ICS* Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15	IEC classification	
ISOTC172-AAA031-001 Domain*:	D = dependent; N = non-dependent;	D
Property type classification Real Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status Oo.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15	Depends on	ISOTC172-AAA082-001
Property type classification Real Value specification Control List of values Control List of value names Control Value format Control Identification class instance types Control Figure Control Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15		ISOTC172-AAA031-001
Value specification List of values List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15	Domain*:	
List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15	Property type classification	Real
List of value names Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15	Value specification	
Value formatIdentification class instance typesFigureClassification to ICS*37.020Definition class*ISOTC172-AAA002-001Preferred name of definition classoptical materialKeywordStatus60.60 releasedDate of original definition*2012-08-15Date of current version*2012-08-15Date of current revision*2012-08-15	List of values	
Identification class instance typesFigureClassification to ICS*37.020Definition class*ISOTC172-AAA002-001Preferred name of definition classoptical materialKeywordKeywordStatus60.60 releasedDate of original definition*2012-08-15Date of current version*2012-08-15Date of current revision*2012-08-15	List of value names	
Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15	Value format	
Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15	Identification class instance types	
Definition class*ISOTC172-AAA002-001Preferred name of definition classoptical materialKeywordStatus60.60 releasedDate of original definition*2012-08-15Date of current version*2012-08-15Date of current revision*2012-08-15	Figure	
Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15	Classification to ICS*	37.020
Keyword Status 60.60 released Date of original definition* 2012-08-15 Date of current version* 2012-08-15 Date of current revision* 2012-08-15	Definition class*	ISOTC172-AAA002-001
Status60.60 releasedDate of original definition*2012-08-15Date of current version*2012-08-15Date of current revision*2012-08-15	Preferred name of definition class	optical material
Date of original definition*2012-08-15Date of current version*2012-08-15Date of current revision*2012-08-15	Keyword	
Date of current version* 2012-08-15 Date of current revision* 2012-08-15	Status	60.60 released
Date of current revision* 2012-08-15	Date of original definition*	2012-08-15
	Date of current version*	2012-08-15
ownerTCSC* TC172SC03	Date of current revision*	2012-08-15
10112000	ownerTCSC*	TC172SC03
liaisonTCSC TC172	liaisonTCSC	TC172
ebXML URI	ebXML URI	

6.52 ISOTC172-AAA082-001: temperature interval

Identifier	Hamanaha	Promortion
Information supplier-Code*-Version*- Revision* Preferred name* temperature interval	Hierarchy	Properties
Short name Synonymous name Preferred symbol Preferred symbol Synonymous symbol description of temperature intervals for temperature coefficients of light refraction Source document of definition Note Remark	[Information supplier-Code*-Version*-	ISOTC172-AAA082-001.024
Synonymous name Preferred symbol Synonymous symbol Definition* Source document of definition Note Remark Formula Unit of measure* UN ECE code for unit Alternative unit IEC classification Type of property Depends on Domein*: Property type classification Value specification 10 20 30 40 40 40 50 60 60 60 List of value names List of value names List of value names 40 °C up to +20 °C +20 °C up to +60 °C +20 °C up to +60 °C +40 °C up to +60 °C +40 °C up to +60 °C -10 classification to ICS* Strius Value format Identification class instance types Figure Classification Copical material Keyword Status 60 60 released Date of original definition* O 60 released Date of original definition* O 60 released Date of original definition* O 800 remarks Preferred name of definition of class O 60 released Date of original definition* O 800 remarks Preferred name of definition of class O 60 released Date of original definition* O 800 remarks O 800 remarks O 800 remarks O 800 released Date of original definition* O 800 remarks O 800 remarks O 800 remarks O 800 released Date of original definition* O 800 remarks O 800 remarks O 800 remarks O 800 released Date of original definition* O 800 remarks O 800 remarks O 800 remarks O 800 remarks O 800 released Date of original definition* O 800 remarks O 800 re	Preferred name*	temperature interval
Preferred symbol Synonymous symbol Definition* description of temperature intervals for temperature coefficients of light refraction Source document of definition Remark Formula Image: Count of temperature intervals for temperature coefficients of light refraction Formula Image: Count of temperature intervals for temperature coefficients of light refraction Unit of measure* Image: Count of temperature intervals for temperature coefficients of light refraction Unit of measure* Image: Count of temperature intervals for temperature coefficients of light refraction Unit of measure* Image: Count of temperature intervals for temperature coefficients of light refraction Unit of measure* Image: Count of temperature intervals for temperature coefficients of light refraction Unit of measure* Image: Count of temperature intervals for temperature coefficients of light refraction Dependent: Count of temperature intervals for temperature coefficients of light refraction Property to description of temperature intervals for temperature coefficients of light refraction Count of temperature coefficients of light refraction Value of property Count of temperature intervals for temperature	Short name	
Synonymous symbol Definition* description of temperature intervals for temperature coefficients of light refraction Source document of definition Note Remark Formula Unit of measure* UN ECE code for unit Alternative unit IEC classification Type of property D = dependent; N = non-dependent; C = condition Demain*: Property type classification String Value specification 10 20 30 40 50 60 EList of value names 40 °C up to +20 °C +20 °C up to +40 °C +40 °C up to +20 °C +60 °C up to +80 °C +60 °C up to +80 °C Value format Identification tolass instance types Figure Classification to ICS* 3 7,020 Definition class* Isource 4-20 °C related Definition class* Isource 4-20 °C related String 10 °C up to +80 °C Preferred name of definition class Keyword Status 6 0.60 released Date of original definition* 2012-08-15	Synonymous name	
Definition* description of temperature intervals for temperature coefficients of light refraction Source document of definition Note Remark Formula Unit of measure* UN ECE code for unit Alternative unit IEC classification Type of property Despends on Demain*: Property type classification String Value specification CODED List of value names 40 °C up to -20 °C -20 °C up to 0 °C 0 °C up to +40 °C +40 °C up to +80 °C Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Koyword Status 60.60 released Date of original definition* 2012-08-15	Preferred symbol	
Source document of definition Note Remark	Synonymous symbol	
Note Remark Formula	Definition*	description of temperature intervals for temperature coefficients of light refraction
Remark	Source document of definition	
Formula	Note	
Unit of measure* UN ECE code for unit Alternative unit IEC classification Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Value specification CODED List of values 10 20 30 40 50 60 List of value names -40 °C up to +20 °C +20 °C up to +40 °C +40 °C up to +80 °C +60 °C up to +80 °C +60 °C up to +80 °C Figure Value format Identification to ICS* 37.020 Befinition class* ISOTC172-AAA002-001 Preferred name of definition class Status 6.60 creased	Remark	
UN ECE code for unit Alternative unit IEC classification Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Value specification List of values 10 20 30 40 40 50 60 List of value names -40 °C up to -20 °C -20 °C up to 0 °C 0 °C up to +40 °C +40 °C up to +80 °C +60 °C up to +80 °C Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 6.60 released Date of original definition* 2012-08-15	Formula	
Alternative unit IEC classification Type of property De dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification String	Unit of measure*	
Type of property C C C C C C C C C	UN ECE code for unit	
Type of property D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Value specification Value format Identification class instance types Figure Classification to ICS* A7.020 Definition class* Keyword Status C C CODED String String String CODED List of values 10 20 30 40 50 60 60 List of value names -40 °C up to -20 °C -20 °C up to 0 °C 0 °C up to +20 °C +20 °C up to +40 °C +40 °C up to +60 °C +60 °C up to +60 °C 10 Cup to +60 °C 10 C	Alternative unit	
D = dependent; N = non-dependent; C = condition Depends on Domain*: Property type classification Value specification List of values 40 50 60 List of value names -40 °C up to -20 °C -20 °C up to 0 °C 0 °C up to +40 °C +40 °C up to +60 °C +40 °C up to +80 °C Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* IsoTC172-AAA002-001 Preferred name of definition class Keyword Status 6.60 released Date of original definition* 2012-08-15	IEC classification	
Domain*: Property type classification String Value specification CODED List of values 10 20 30 40 50 60 60 List of value names -40 °C up to -20 °C -20 °C up to 0 °C 0 °C up to +20 °C -20 °C up to +20 °C +20 °C up to +40 °C +40 °C up to +60 °C +60 °C up to +80 °C Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15	Type of property $D = dependent; N = non-dependent; C = condition$	С
Property type classification String Value specification CODED List of values 10 20 30 40 50 60 60 List of value names -40 °C up to -20 °C -20 °C up to 0 °C 0 °C up to +20 °C +20 °C up to +40 °C +20 °C up to +60 °C +40 °C up to +60 °C +60 °C up to +80 °C Value format Identification class instance types Figure Classification to ICS* Obefinition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status Date of original definition* 2012-08-15	Depends on	
Value specification CODED List of values 10 20 30 40 50 60 60 List of value names -40 °C up to -20 °C -20 °C up to 0 °C 0 °C up to +20 °C -20 °C up to +40 °C +20 °C up to +40 °C +40 °C up to +80 °C Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15	Domain*:	
List of values	Property type classification	String
20 30 40 50 60 Elist of value names	Value specification	CODED
30	List of values	10
40	Ť	20
50		30
List of value names -40 °C up to -20 °C -20 °C up to 0 °C 0 °C up to +20 °C +20 °C up to +40 °C +40 °C up to +60 °C +60 °C up to +80 °C Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released Date of original definition* 2012-08-15		40
List of value names -40 °C up to -20 °C -20 °C up to 0 °C 0 °C up to +20 °C +20 °C up to +40 °C +40 °C up to +60 °C +60 °C up to +80 °C Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released Date of original definition* 2012-08-15		50
-20 °C up to 0 °C 0 °C up to +20 °C +20 °C up to +40 °C +40 °C up to +60 °C +60 °C up to +80 °C Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Optical material Keyword Status 60.60 released Date of original definition* 2012-08-15		60
O °C up to +20 °C +20 °C up to +40 °C +40 °C up to +60 °C +60 °C up to +80 °C Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released Date of original definition* 2012-08-15	List of value names	-40 °C up to -20 °C
+20 °C up to +40 °C +40 °C up to +60 °C +60 °C up to +80 °C Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released Date of original definition* 2012-08-15		-20 °C up to 0 °C
+40 °C up to +60 °C +60 °C up to +80 °C Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released 2012-08-15		0 °C up to +20 °C
+40 °C up to +60 °C +60 °C up to +80 °C Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class Keyword Status 60.60 released 2012-08-15		+20 °C up to +40 °C
Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15		
Value format Identification class instance types Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15		
Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15	Value format	
Figure Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15	Identification class instance types	
Classification to ICS* 37.020 Definition class* ISOTC172-AAA002-001 Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15	Figure	
Preferred name of definition class optical material Keyword Status 60.60 released Date of original definition* 2012-08-15	Classification to ICS*	37.020
Keyword Status 60.60 released Date of original definition* 2012-08-15	Definition class*	ISOTC172-AAA002-001
Status 60.60 released Date of original definition* 2012-08-15	Preferred name of definition class	optical material
Date of original definition* 2012-08-15	Keyword	
	Status	60.60 released
Date of current version* 2012-08-15	Date of original definition*	2012-08-15
2012 00 10	Date of current version*	2012-08-15

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA082-001.024
Preferred name*	temperature interval
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.53 ISOTC172-AAA081-001: annealing point

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA081-001.019
Preferred name*	annealing point
Short name	T10^13
Synonymous name	
Preferred symbol	T10^13
Synonymous symbol	At
Definition*	temperature corresponding to a viscosity 10^13,2 dPa·s determined by the method described in ISO 7884-7
Source document of definition	
Note	
Remark	
Formula	
Unit of measure*	°C
UN ECE code for unit	CEL
Alternative unit	
IEC classification	H02
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.54 ISOTC172-AAA080-001: softening point

Hierarchy	Properties
Identifier	ISOTC172-AAA080-001.023
[Information supplier-Code*-Version*-Revision*]	
Preferred name*	softening point
Short name	T10^7,6
Synonymous name	
Preferred symbol	T10^7,6
Synonymous symbol	SP
Definition*	temperature corresponding to a viscosity 10^7,6 dPa·s determined by one of the methods described in ISO 7884-2 or ISO 7884-6
Source document of definition	
Note	
Remark	
Formula	
Unit of measure*	°C
UN ECE code for unit	CEL
Alternative unit	;
IEC classification	H02
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	1
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.55 ISOTC172-AAA086-001: thickness of a piece of material

Hierarchy	Properties
Identifier	ISOTC172-AAA086-001.021
[Information supplier-Code*-Version*-Revision*]	13010172-AAA000-001.021
Preferred name*	thickness of a piece of material
Short name	thickness
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	thickness of a material piece for which the transmittance is specified
Source document of definition	
Note	
Remark	
Formula	
Unit of measure*	mm
UN ECE code for unit	MMT
Alternative unit	
IEC classification	T03
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	Real
Value specification	EXPLICIT
List of values	5
	10
	25
List of value names	test thickness of 5 mm
	test thickness of 10 mm
	test thickness of 10 mm test thickness of 25 mm
Value format	
Value format Identification class instance types	
Identification class instance types	
Identification class instance types Figure	test thickness of 25 mm
Identification class instance types Figure Classification to ICS*	test thickness of 25 mm 37.020
Identification class instance types Figure Classification to ICS* Definition class*	37.020 ISOTC172-AAA002-001
Identification class instance types Figure Classification to ICS* Definition class* Preferred name of definition class	37.020 ISOTC172-AAA002-001
Identification class instance types Figure Classification to ICS* Definition class* Preferred name of definition class Keyword	test thickness of 25 mm 37.020 ISOTC172-AAA002-001 optical material
Identification class instance types Figure Classification to ICS* Definition class* Preferred name of definition class Keyword Status	test thickness of 25 mm 37.020 ISOTC172-AAA002-001 optical material 60.60 released
Identification class instance types Figure Classification to ICS* Definition class* Preferred name of definition class Keyword Status Date of original definition*	test thickness of 25 mm 37.020 ISOTC172-AAA002-001 optical material 60.60 released 2012-08-15
Identification class instance types Figure Classification to ICS* Definition class* Preferred name of definition class Keyword Status Date of original definition* Date of current version*	test thickness of 25 mm 37.020 ISOTC172-AAA002-001 optical material 60.60 released 2012-08-15 2012-08-15
Identification class instance types Figure Classification to ICS* Definition class* Preferred name of definition class Keyword Status Date of original definition* Date of current version* Date of current revision*	test thickness of 25 mm 37.020 ISOTC172-AAA002-001 optical material 60.60 released 2012-08-15 2012-08-15

6.56 ISOTC172-AAA032-001: tilt angle of a spherical surface

Hierarchy	Properties
-	-
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA032-001.022
Preferred name*	tilt angle of a spherical surface
Short name	4/ 0
Synonymous name	
Preferred symbol	
Synonymous symbol	
Definition*	maximum permissible angle between the datum axis and the normal to the surface at its intersection point with the datum axis
Source document of definition	ISO 10110-6:1996
Note	
Remark	
Formula	
Unit of measure*	•
UN ECE code for unit	D61
Alternative unit	
IEC classification	T01
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA011-001
Preferred name of definition class	optical element
Keyword	centring tolerance
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC01
liaisonTCSC	TC172
ebXML URI	

6.57 ISOTC172-AAA079-001: transformation temperature

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA079-001.021
Preferred name*	transformation temperature
Short name	Тд
Synonymous name	
Preferred symbol	Tg
Synonymous symbol	
Definition*	temperature defined according to ISO 7884-8, which characterizes the transition range from brittle to liquid behaviour of glasses (significant change in the rate of relative linear thermal expansion)
Source document of definition	adapted from ISO 7884-8
Note	
Remark	Transformation temperature generally lies right at approximately T10^13
Formula	
Unit of measure*	°C
UN ECE code for unit	CEL
Alternative unit	
IEC classification	H02
Type of property D = dependent; N = non-dependent; C = condition	N
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	37.020
Definition class*	ISOTC172-AAA002-001
Preferred name of definition class	optical material
Keyword	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172SC03
liaisonTCSC	TC172
ebXML URI	

6.58 ISOTC172-AAA047-001: wavelength

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA047-001.025
Preferred name*	wavelength
Short name	wavelength
Synonymous name	
Preferred symbol	λ
Synonymous symbol	
Definition*	distance between two points of a periodic wave to follow each other with the same value of phase angle at the same point in time
Source document of definition	
Note	
Remark	
Formula	
Unit of measure*	nm
UN ECE code for unit	C45
Alternative unit	
IEC classification	L03
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	Real
Value specification	
List of values	
List of value names	
Value format	
Identification class instance types	
Figure	
Classification to ICS*	01.060\17.180\37.020
Definition class*	ISOTC172-AAA008-001
Preferred name of definition class	quantities of light and related electromagnetic radiations
Keyword	wavelength
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

6.59 ISOTC172-AAA031-001: wavelength for special spectral lines

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA031-001.062
Preferred name*	wavelength for special spectral lines
Short name	spectral lines
Synonymous name	
Preferred symbol	λ
Synonymous symbol	
Definition*	defined values for the spectral wavelength of light that are sent out of atoms or molecules
Source document of definition	
Note	
Remark	the list of values contains the recommended wavelength given in ISO 7944:1998 and other used wavelengths for material specification
	ISO 25297-1:2012, NODIF: spectral_name
Formula	
Unit of measure*	nm
UN ECE code for unit	C45
Alternative unit	
IEC classification	L03
Type of property D = dependent; N = non-dependent; C = condition	С
Depends on	
Domain*:	
Property type classification	Real
Value specification	EXPLICIT

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA031-001.062
Preferred name*	wavelength for special spectral lines
List of values	157,63
	193,0
	194,23
	248,3
	280,4
	296,728
	312,566
	334,148
	365,01
	404,66
	435,83
	441,57
	479,99
	486,13
	543,5
	546,07
	587,56
	589,29
	632,8
	643,85
	656,27
	706,52
	768,19
	780,0
	852,11
	1013,98
	1060,0
	1064,1
	1128,66
	1395,1
	1529,6
	1813,1
	1970,1
	2325,4
	10600,0

Hierarchy	Properties
Identifier	ISOTC172-AAA031-001.062
[Information supplier-Code*-Version*- Revision*]	
Preferred name*	wavelength for special spectral lines
List of value names	157,63 nm
List of value names	193,00 nm ArF excimer laser
	194,23 nm
	248,3 nm ultraviolet mercury line, KrF excimer laser
	280,4 nm ultraviolet mercury line
	296,728 nm ultraviolet mercury line
	312,566 nm ultraviolet mercury line
	334,148 nm ultraviolet mercury line
	365,01 nm ultraviolet mercury i-line
	•
	404,66 nm violet mercury h-line
	435,83 nm blue mercury g-line 441,57 nm He-Cd
	479,99 nm blue cadmium F´-line
	486,13 nm blue hydrogen F-line
	543,5 nm He-Ne laser
	546,07 nm green mercury e-line
	587,56 nm yellow helium d-line
	589,29 nm yellow natrium D-line
	632,8 nm He-Ne gas laser
	643,85 nm red cadmium C´-line
	656,27 nm red hydrogen C-line
	706,52 nm red helium r-line
	768,19 nm, A´-line
	780,0 nm infrared Rb line
	852,11 nm infrared caesium s-line
	1013,98 nm infrared mercury t-line
	1060,00 nm Nd gas laser
	1064,1 nm Nd: YAG laser
	1128,66 nm
	1395,1 nm infrared mercury line
	1529,6 nm infrared mercury line
	1813,1 nm infrared mercury line
	1970,1 nm infrared mercury line
	2325,4 nm infrared mercury line
Value format	CO ₂ Laser
Identification class instance types	
Figure	
Classification to ICS*	01.060\17.180\37.020
Definition class*	ISOTC172-AAA008-001
Preferred name of definition class	quantities of light and related electromagnetic radiations
Keyword	reference wavelength\spectral line

Hierarchy	Properties
Identifier [Information supplier-Code*-Version*- Revision*]	ISOTC172-AAA031-001.062
Preferred name*	wavelength for special spectral lines
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

7 Application classes

7.1 ISOTC172-AAA020-001: ISOTC172 optics and photonics

Hierarchy	Application classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA020-001.018
Preferred name*	ISOTC172 optics and photonics
Short name	
Synonymous name	
Definition*	collection of application classes and properties used in ISO/TC 172
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA016-001
Preferred name of superclass	Application classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

7.2 ISOTC172-AAA021-001: ISOTC172SC01 fundamental standards

Hierarchy	Application classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA021-001.016
Preferred name*	ISOTC172SC01 fundamental standards
Short name	
Synonymous name	
Definition*	collection of application classes and properties used in ISO/TC 172/SC 1
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA016-001
Preferred name of superclass	Application classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

ISOTC172-AAA022-001: ISOTC172SC03 optical materials and components

Hierarchy	Application classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA022-001.024
Preferred name*	ISOTC172SC03 optical materials and components
Short name	
Synonymous name	
Definition*	collection of application classes and properties used in ISO/TC 172/SC 3
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA016-001
Preferred name of superclass	Application classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

7.4 ISOTC172-AAA023-001: ISOTC172SC04 telescopic systems

Hierarchy	Application classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA023-001.013
Preferred name*	ISOTC172SC04 telescopic systems
Short name	
Synonymous name	
Definition*	collection of application classes and properties used in ISO/TC 172/SC 4
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA016-001
Preferred name of superclass	Application classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

ISOTC172-AAA024-001: ISOTC172SC05 microscopes and endoscopes

Hierarchy	Application classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA024-001.018
Preferred name*	ISOTC172SC05 microscopes and endoscopes
Short name	
Synonymous name	
Definition*	collection of application classes and properties used in ISO/TC 172/SC 5
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA016-001
Preferred name of superclass	Application classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

7.6 ISOTC172-AAA025-001: ISOTC172SC06 geodetic and surveying instruments

Hierarchy	Application classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA025-001.016
Preferred name*	ISOTC172SC06 geodetic and surveying instruments
Short name	
Synonymous name	
Definition*	collection of application classes and properties used in ISO/TC 172/SC 6
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA016-001
Preferred name of superclass	Application classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

ISOTC172-AAA026-001: ISOTC172SC07 ophthalmic optics and instruments

Hierarchy	Application classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA026-001.017
Preferred name*	ISOTC172SC07 ophthalmic optics and instruments
Short name	
Synonymous name	
Definition*	collection of application classes and properties used in ISO/TC 172/SC 7
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020
Its superclass	ISOTC172-AAA016-001
Preferred name of superclass	Application classes
Keyword	
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

7.8 ISOTC172-AAA027-001: ISOTC172SC09 electro-optical systems

Hierarchy	Application classes
Identifier [Information supplier*-Code*- Version*-Revision*]	ISOTC172-AAA027-001.015
Preferred name*	ISOTC172SC09 electro-optical systems
Short name	
Synonymous name	
Definition*	collection of application classes and properties used in ISO/TC 172/SC 9
Source document of definition	
Note	
Remark	
List of defined properties	
Figure	
Classification to ICS*	37.020\31
Its superclass	ISOTC172-AAA016-001
Preferred name of superclass	Application classes
Keyword	laser
Applicable properties	
Applicable types	
Subclass selectors	
Class selector values	
Status	60.60 released
Date of original definition*	2012-08-15
Date of current version*	2012-08-15
Date of current revision*	2012-08-15
ownerTCSC*	TC172
liaisonTCSC	
ebXML URI	

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