

SLOVENSKI STANDARD SIST EN 60793-2-30:2009

01-junij-2009

BUXca Yý U. SIST EN 60793-2-30:2004

Cdh] bUj`U_bU!'&!' \$"XY.'GdYW]Z_UW]^Y`]nXY_U!'DcXfc bUgdYW]Z_UW]^UnU jY fcXbUj`U_bU_UhY[cf]^Y5' 'fb97'*\$+-'!&!'\$.&\$\$+Ł

Optical fibres - Part 2-30: Product specifications - Sectional specification for category A3 multimode fibres (IEC 60793-2-30:2007)

Lichtwellenleiter - Teil 2-30: Produktspezifikationen - Rahmenspezifikation für Mehrmodenfasern der Kategorie A3 (IEC 60793-2-30:2007)

Fibres optiques - Partie 2-30: Spécifications de produit - Spécification intermédiaire pour les fibres multimodales de catégorie A3 g(CEI 60793-2-30:2007) 56-a239-34e4f1349fe4/sist-en-60793-2-30-2009

Ta slovenski standard je istoveten z: EN 60793-2-30:2009

ICS:

33.180.10 (L) (a) add (a) add

SIST EN 60793-2-30:2009 en,fr

SIST EN 60793-2-30:2009

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 60793-2-30:2009</u> https://standards.iteh.ai/catalog/standards/sist/e3199cb1-53f5-4356-a239-34e4f1349fe4/sist-en-60793-2-30-2009 **EUROPEAN STANDARD**

EN 60793-2-30

NORME EUROPÉENNE EUROPÄISCHE NORM

April 2009

ICS 33.180.10

Supersedes EN 60793-2-30:2002

English version

Optical fibres Part 2-30: Product specifications Sectional specification for category A3 multimode fibres

(IEC 60793-2-30:2007)

Fibres optiques Partie 2-30: Spécifications de produit Spécification intermédiaire
pour les fibres multimodales
de catégorie A3
(CEI 60793-2-30:2007)

Lichtwellenleiter Teil 2-30: Produktspezifikationen Rahmenspezifikation
für Mehrmodenfasern
der Kategorie A3
(IEC 60793-2-30:2007)

iTeh STANDARD PREVIEW (standards.iteh.ai)

This European Standard was approved by CENELEC on 2009-04-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration sixted 199cb1-53f5-4356-a239-34e4f1349fe4/sist-en-60793-2-30-2009

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization Comité Européen de Normalisation Electrotechnique Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 86A/1130/CDV, future edition 2 of IEC 60793-2-30, prepared by SC 86A, Fibres and cables, of IEC TC 86, Fibre optics, was submitted to the IEC-CENELEC Parallel Unique Acceptance Procedure and was approved by CENELEC as EN 60793-2-30 on 2009-04-01.

This European Standard supersedes EN 60793-2-30:2002.

The main changes from EN 60793-2-30:2002 are:

- the addition of tensile strength requirement;
- the removal of water immersion requirement;
- the addition of environmental requirements.

The following dates were fixed:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement
- (dop) 2010-01-01
- latest date by which the national standards conflicting with the EN have to be withdrawn

(dow) 2012-04-01

Annex ZA has been added by CENELEC.NDARD PREVIEW

(standards.iteh.ai)

Endorsement notice

SIST EN 60793-2-30:2009

The text of the International Standard IEC 60793-2-30:2007 was approved by CENELEC as a European Standard without any modification 34e4f1349fe4/sist-en-60793-2-30-2009

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60793-1-1 NOTE Harmonized as EN 60793-1-1:2008 (not modified).

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

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.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	EN/HD	<u>Year</u>
IEC 60793-1-20	_ 1)	Optical fibres - Part 1-20: Measurement methods and test procedures - Fibre geometry	EN 60793-1-20	2002 2)
IEC 60793-1-21	- ¹⁾	Optical fibres - Part 1-21: Measurement methods and test procedures - Coating geometry	EN 60793-1-21	2002 2)
IEC 60793-1-22	_ 1)	Optical fibres - Part 1-22: Measurement methods and test procedures - Length measurement	EN 60793-1-22	2002 2)
IEC 60793-1-30	- ¹⁾ iT	Optical fibres - A P P P P P P P P P P P P P P P P P P	EN 60793-1-30	2002 ²⁾
IEC 60793-1-31	_ 1)	Optical fibres - Part 1-31: Measurement methods and test	EN 60793-1-31	2002 2)
IEC 60793-1-40 (mod)	https://sta_1)	Optical-fibres fe4/sist-en-60793-2-30-2009 Part 1-40: Measurement methods and test procedures - Attenuation	EN 60793-1-40	2003 2)
IEC 60793-1-41	_ 1)	Optical fibres - Part 1-41: Measurement methods and test procedures - Bandwidth	EN 60793-1-41	2003 ²⁾
IEC 60793-1-46	_ 1)	Optical fibres - Part 1-46: Measurement methods and test procedures - Monitoring of changes in optical transmittance	EN 60793-1-46	2002 2)
IEC 60793-1-50	- 1)	Optical fibres - Part 1-50: Measurement methods and test procedures - Damp heat (steady state)	EN 60793-1-50	2002 2)
IEC 60793-1-51	_ 1)	Optical fibres - Part 1-51: Measurement methods and test procedures - Dry heat	EN 60793-1-51	2002 2)
IEC 60793-1-52	_ 1)	Optical fibres - Part 1-52: Measurement methods and test procedures - Change of temperature	EN 60793-1-52	2002 2)
IEC 60793-2	- ¹⁾	Optical fibres - Part 2: Product specifications - General	EN 60793-2	2008 ²⁾

¹⁾ Undated reference.

_

²⁾ Valid edition at date of issue.

SIST EN 60793-2-30:2009

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 60793-2-30:2009</u> https://standards.iteh.ai/catalog/standards/sist/e3199cb1-53f5-4356-a239-34e4f1349fe4/sist-en-60793-2-30-2009



IEC 60793-2-30

Edition 2.0 2007-08

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Optical fibres - iTeh STANDARD PREVIEW

Part 2-30: Product specifications — Sectional specification for category A3 multimode fibres

SIST EN 60793-2-30:2009

Fibres optiqueshttps://standards.iteh.ai/catalog/standards/sist/e3199cb1-53f5-4356-a239-

Partie 2-30: Spécifications de produits Spécification intermédiaire pour les fibres multimodales de catégorie A3

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

PRICE CODE
CODE PRIX

N

ICS 33.180.10 ISBN 2-8318-9267-8

CONTENTS

FO	REWC)RD	3			
1	Scop	e	5			
2	Norm	ative references	5			
3	Spec	Specifications				
	3.1	General	6			
	3.2	Dimensional requirements				
	3.3	Mechanical requirements				
	3.4	Transmission requirements				
	3.5	Environmental requirements	8			
Anr	nex A	(normative) Family specifications for A3a multimode fibres	9			
Anr	nex B	(normative) Family specifications for A3b multimode fibres	. 10			
Anr	nex C	(normative) Family specifications for A3c multimode fibres	11			
Anr	nex D	(normative) Family specifications for A3d multimode fibres	. 13			
Dih	liograi	phy	15			
		•				
Tab	ole 1 –	Relevant dimensional attributes and measurement methods	6			
Tab	le 2 –	Dimensional requirements common to category A3 fibres	6			
Tab	ole 3 –	Additional dimensional attributes required in family specifications	7			
Tab	ole 4 –	Relevant mechanical attributes and rest methods. https://standards.iteh.arcatalog/standards/sist/e3199eb1-53f5-4356-a239-	7			
Tab	le 5 –	Mechanical requirements common to category A3 flibres	7			
Tab	le 6 –	Relevant transmission attributes and measurement methods	7			
Tab	ole 7 –	Additional transmission attributes required in the family specifications	8			
Tab	le 8 –	Relevant environmental attributes and test methods	8			
Tab	ole A.1	Dimensional requirements specific to A3a fibres	9			
Tab	ole A.2	2 – Mechanical requirements specific to A3a fibres	9			
Tab	ole A.3	B – Transmission requirements specific to A3a fibres	9			
Tab	le B.1	Dimensional requirements specific to A3b fibres	.10			
Tab	le B.2	2- Mechanical requirements specific to A3b fibres	. 10			
Tab	ole B.3	B –Transmission requirements specific to A3b fibres	. 10			
Tab	ole C.1	I – Dimensional requirements specific to A3c fibres	. 11			
Tab	ole C.2	2 – Mechanical requirements specific to A3c fibres	. 11			
Tab	ole C.3	3 –Transmission requirements specific to A3c fibres	. 11			
Tab	ole C.4	1.1 – Environmental exposure tests	. 12			
Tab	ole C.4	1.2 – Attributes measured	.12			
Tab	ole D.1	I – Dimensional requirements specific to A3d fibres	.13			
Tab	Table D.2 – Mechanical requirements specific to A3d fibres					
Tab	Table D.3 – Transmission requirements specific to A3d fibres1					
Tab	ole D.4	1.1 – Environmental exposure tests	. 14			
Tab	ole D.4	1.2 – Attributes measured	14			

INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRES –

Part 2-30: Product specifications – Sectional specification for category A3 multimode fibres

FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- https://standards.itch.ai/catalog/standards/sist/e3199cb1-53f5-4356-a239
 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60793-2-30 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics.

This second edition cancels and replaces the first edition, published in 2002. It constitutes a technical revision.

The main changes from the previous edition are:

- the addition of tensile strength requirement;
- the removal of water immersion requirement;
- the addition of environmental requirements.

-4 -

The text of this standard is based on the following documents:

CDV	Report on voting
86A/1130/CDV	86A/1150/RVC

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of the IEC 60793 series, published under the general title *Optical fibres*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- · reconfirmed,
- · withdrawn,
- replaced by a revised edition, or
- amended.

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 60793-2-30:2009</u> https://standards.iteh.ai/catalog/standards/sist/e3199cb1-53f5-4356-a239-34e4f1349fe4/sist-en-60793-2-30-2009

OPTICAL FIBRES -

Part 2-30: Product specifications – Sectional specification for category A3 multimode fibres

1 Scope

This part of IEC 60793-2 is applicable to optical fibre types A3a, A3b, A3c, and A3d. These fibres are used or can be incorporated in information transmission equipment and optical fibre cables (typically up to 1 km).

Three types of requirements apply to these fibres:

- general requirements, as defined in IEC 60793-2;
- specific requirements common to the category A3 multimodal fibres covered in this standard and which are given in Clause 3;
- particular requirements applicable to individual fibre types or specific applications (e.g. automotive or industrial applications), which are defined in the normative family specification annexes.

iTeh STANDARD PREVIEW

2 Normative references

(standards.iteh.ai)

The following referenced documents are indispensable for the application of this document. For dated references, only the edition of the references, the latest edition of the referenced document (including any amendments) applies 4356-a239-

34e4f1349fe4/sist-en-60793-2-30-2009

IEC 60793-1-20, Optical fibres – Part 1-20: Measurement methods and test procedures – Fibre geometry

IEC 60793-1-21, Optical fibres – Part 1-21: Measurement methods and test procedures – Coating geometry

IEC 60793-1-22, Optical fibres – Part 1-22: Measurement methods and test procedures – Length measurement

IEC 60793-1-30, Optical fibres – Part 1-30: Measurement methods and test procedures – Fibre proof test

IEC 60793-1-31, Optical fibres – Part 1-31: Measurement methods and test procedures – Tensile strength

IEC 60793-1-40, Optical fibres – Part 1-40: Measurement methods and test procedures – Attenuation

IEC 60793-1-41, Optical fibres – Part 1-41: Measurement methods and test procedures – Bandwidth

IEC 60793-1-46, Optical fibres – Part 1-46: Measurement methods and test procedures – Monitoring of changes in optical transmittance

IEC 60793-1-50, Optical fibres – Part 1-50: Measurement methods and test procedures – Damp heat (steady state)