



SLOVENSKI STANDARD
SIST EN 60793-2-10:2008
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SIST EN 60793-2-10:2006

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Optical fibres - Part 2-10: Product specifications - Sectional specification for category A1 multimode fibres (IEC 60793-2-10:2007)

Lichtwellenleiter - Teil 2-10: Produktspezifikationen - Rahmenspezifikation für Mehrmodenfasern der Kategorie A1 (IEC 60793-2-10:2007)

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Fibres optiques - Partie 2-10: Spécification de produits - Spécification intermédiaire pour les fibres multimodales de catégorie A1 (IEC 60793-2-10:2007)

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Ta slovenski standard je istoveten z: EN 60793-2-10:2007

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English version

**Optical fibres -
Part 2-10: Product specifications -
Sectional specification for category A1 multimode fibres
(IEC 60793-2-10:2007)**

Fibres optiques -
Partie 2-10: Spécification de produits -
Spécification intermédiaire pour les fibres
multimodales de catégorie A1
(CEI 60793-2-10:2007)

Lichtwellenleiter -
Teil 2-10: Produktspezifikationen -
Rahmenspezifikation
für Mehrmodenfasern der Kategorie A1
(IEC 60793-2-10:2007)

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This European Standard was approved by CENELEC on 2007-09-01. 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.

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: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 86A/1046/CDV, future edition 3 of IEC 60793-2-10, 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 60793-2-10 on 2007-09-01.

This European Standard supersedes EN 60793-2-10:2004.

Temporarily included text of the DMD test method has been removed and modifications have been included on the A1a.1 and A1d chromatic dispersion specifications, and A1a.1 numerical aperture has been limited to one class only.

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) 2008-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2010-09-01

Annex ZA has been added by CENELEC.

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Endorsement notice

The text of the International Standard IEC 60793-2-10:2007 was approved by CENELEC as a European Standard without any modification.

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

IEC 60794-2 NOTE Harmonized as EN 60794-2:2003 (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>	<u>EN/HD</u>	<u>Year</u>
IEC 60793-1-1	2002	Optical fibres - Part 1-1: Measurement methods and test procedures - General and guidance	EN 60793-1-1	2003
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⁾	Optical fibres - Part 1-30: Measurement methods and test procedures - Fibre proof test	EN 60793-1-30	2002 ²⁾
IEC 60793-1-31	- ¹⁾	Optical fibres - Part 1-31: Measurement methods and test procedures - Tensile strength	EN 60793-1-31	2002 ²⁾
IEC 60793-1-32 (mod)	- ¹⁾	Optical fibres - Part 1-32: Measurement methods and test procedures - Coating strippability	EN 60793-1-32	2003 ²⁾
IEC 60793-1-33	- ¹⁾	Optical fibres - Part 1-33: Measurement methods and test procedures - Stress corrosion susceptibility	EN 60793-1-33	2002 ²⁾
IEC 60793-1-34	- ¹⁾	Optical fibres - Part 1-34: Measurement methods and test procedures - Fibre curl	EN 60793-1-34	2006 ²⁾
IEC 60793-1-40 (mod)	- ¹⁾	Optical fibres - Part 1-40: Measurement methods and test procedures - Attenuation	EN 60793-1-40	2003 ²⁾

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60793-1-41	- ¹⁾	Optical fibres - Part 1-41: Measurement methods and test procedures - Bandwidth	EN 60793-1-41	2003 ²⁾
IEC 60793-1-42	- ¹⁾	Optical fibres - Part 1-42: Measurement methods and test procedures - Chromatic dispersion	EN 60793-1-42	2007 ²⁾
IEC 60793-1-43	- ¹⁾	Optical fibres - Part 1-43: Measurement methods and test procedures - Numerical aperture	EN 60793-1-43	2002 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 60793-1-47	- ¹⁾	Optical fibres - Part 1-47: Measurement methods and test procedures - Macrobending loss	EN 60793-1-47	2007 ²⁾
IEC 60793-1-49	- ¹⁾	Optical fibres - Part 1-49: Measurement methods and test procedures - Differential mode delay	EN 60793-1-49	2006 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 60793-1-53	- ¹⁾	Optical fibres - Part 1-53: Measurement methods and test procedures - Water immersion	EN 60793-1-53	2002 ²⁾
IEC 60793-2	2003	Optical fibres - Part 2: Product specifications - General	EN 60793-2	2004
IEC 60794-1-1	- ¹⁾	Optical fibre cables - Part 1-1: Generic specification - General	EN 60794-1-1	2002 ²⁾
IEC 61280-1-4	- ¹⁾	Fibre optic communication subsystem test procedures - Part 1-4: General communication subsystems - Collection and reduction of two-dimensional nearfield data for multimode fibre laser transmitters	EN 61280-1-4	2003 ²⁾
IEC/TR 62048	- ¹⁾	Optical fibres - Reliability - Power law theory	-	-

INTERNATIONAL
STANDARD

IEC
CEI

NORME
INTERNATIONALE

60793-2-10

Third edition
Troisième édition
2007-06

Optical fibres –

Part 2-10:
Product specifications –
Sectional specification for
category A1 multimode fibres

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Fibres optiques –

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<https://standards.iteh.ai/catalog/standards/sist/38a8021e-991e-4780-854f-90ac20d439a3/sist-en-60793-2-10-2008>

Partie 2-10:
Spécifications de produits –
Spécification intermédiaire pour les fibres
multimodales de catégorie A1



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE
CODE PRIX

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For price, see current catalogue
Pour prix, voir catalogue en vigueur

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

OPTICAL FIBRES –

**Part 2-10: Product specifications –
Sectional specification for category A1 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.
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International Standard IEC 60793-2-10 has been prepared by subcommittee 86A: Fibres and cables, of IEC technical committee 86: Fibre optics.

This third edition cancels and replaces the second edition published in 2004, of which it constitutes a technical revision. Temporarily included text of the DMD test method has been removed and modifications have been included on the A1a.1 and A1d chromatic dispersion specifications, and A1a.1 numerical aperture has been limited to one class only.

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

CDV	Report on voting
86A/1046/CDV	86A/1079/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.

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OPTICAL FIBRES –

Part 2-10: Product specifications – Sectional specification for category A1 multimode fibres

1 Scope

This part of IEC 60793 is applicable to optical fibre types A1a, A1b, and A1d. These fibres are used or can be incorporated in information transmission equipment and optical fibre cables.

Type A1a fibre is a 50/125 μm graded index fibre. Type A1a.1 applies to 50/125 μm fibre, while A1a.2 applies to 850 nm laser-optimised 50/125 μm fibre. Type A1b applies to 62,5/125 μm graded index fibre and A1d applies to 100/140 μm graded index fibre.

Other applications include, but are not restricted to, the following: short reach, high bit-rate systems in telephony, distribution and local networks carrying data, voice and/or video services; on-premises intra-building and inter-building fibre installations including LANs, PBXs, video, various multiplexing uses, outside telephone cable plant use, and miscellaneous related uses.

Three types of requirements apply to these fibres:

- general requirements, as defined in IEC 60793-2;
- specific requirements common to the category A1 multimode fibres covered in this standard and which are given in Clause 3;
- particular requirements applicable to individual fibre types or specific applications, which are defined in the normative family specification annexes.

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.

IEC 60793-1-1:2002, *Optical fibres – Part 1-1: Measurement methods and test procedures – General and guidance*

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 60793-1-32, *Optical fibres – Part 1-32: Measurement methods and test procedures – Coating strippability*

IEC 60793-1-33, *Optical fibres – Part 1-33: Measurement methods and test procedures – Stress corrosion susceptibility*

IEC 60793-1-34, *Optical fibres – Part 1-34: Measurement methods and test procedures – Fibre curl*