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ý]f`Yb`Uc[b`Udc`bUj d] bc`df]f`Yb]` g`bcd]` ý]WU]`_UV`cj`!`?`UW[cf]`U5`:`#`f`f`97
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Tests on electric cables under fire conditions -- Part 3-21: Test for vertical flame spread of vertically-mounted bunched wires or cables - Category A F/R

iTeh STANDARD PREVIEW

Prüfungen an Kabeln und isolierten Leitungen im Brandfall -- Teil 3-21: Prüfung der vertikalen Flammenausbreitung von vertikal angeordneten Bündeln von Kabeln und isolierten Leitungen - Prüfmethode A F/R

[SIST EN 60332-3-21:2010](https://standards.iteh.ai/catalog/standards/sist/7dc351e7-207e-45c2-9b2c-3d7872bd0418/sist-en-60332-3-21-2010)

[https://standards.iteh.ai/catalog/standards/sist/7dc351e7-207e-45c2-9b2c-](https://standards.iteh.ai/catalog/standards/sist/7dc351e7-207e-45c2-9b2c-3d7872bd0418/sist-en-60332-3-21-2010)

Essais des câbles électriques soumis au feu -- Partie 3-21: Essai de propagation verticale de la flamme des fils ou câbles en nappes en position verticale - Catégorie A F/R

Ta slovenski standard je istoveten z: EN 60332-3-21:2009

ICS:

13.220.40	Sposobnost vžiga in obnašanje materialov in proizvodov pri gorenju	Ignitability and burning behaviour of materials and products
29.060.20	Kabli	Cables

SIST EN 60332-3-21:2010

en,fr

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SIST EN 60332-3-21:2010

<https://standards.iteh.ai/catalog/standards/sist/7dc351e7-207e-45c2-9b2c-3f37873bdf94/sist-en-60332-3-21-2010>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60332-3-21

October 2009

ICS 29.060.20; 13.220.40; 29.020

Supersedes EN 50266-2-1:2001 + corr. March 2002

English version

**Tests on electric and optical fibre cables under fire conditions -
Part 3-21: Test for vertical flame spread
of vertically-mounted bunched wires or cables -
Category A F/R
(IEC 60332-3-21:2000, modified)**

Essais des câbles électriques
et des câbles à fibres optiques
soumis au feu -
Partie 3-21: Essai de propagation verticale
de la flamme des fils ou câbles en nappes
en position verticale -
Catégorie A F/R
(CEI 60332-3-21:2000, modifiée)

Prüfungen an Kabeln, isolierten Leitungen
und Glasfaserkabeln im Brandfall -
Teil 3-21: Prüfung der vertikalen
Flammenausbreitung von vertikal
angeordneten Bündeln von Kabeln
und isolierten Leitungen -
Prüfart A F/R
(IEC 60332-3-21:2000, modifiziert)

[SIST EN 60332-3-21:2010](https://standards.iteh.ai/catalog/standards/sist/7dc351e7-207e-45c2-9b2c-3f37873bdf94/sist-en-60332-3-21-2010)

<https://standards.iteh.ai/catalog/standards/sist/7dc351e7-207e-45c2-9b2c-3f37873bdf94/sist-en-60332-3-21-2010>

This European Standard was approved by CENELEC on 2009-08-01. 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: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of the International Standard IEC 60332-3-21:2000, prepared by IEC TC 20, Electric cables, together with the common modifications prepared by the Technical Committee CENELEC TC 20, Electric cables, was submitted to the CENELEC Unique Acceptance Procedure and was accepted by CENELEC as EN 60332-3-21 on 2009-08-01.

This European Standard supersedes EN 50266-2-1:2001 + corrigendum March 2002.

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) 2010-08-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2012-08-01

Annex ZA has been added by CENELEC.

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[SIST EN 60332-3-21:2010](https://standards.iteh.ai/catalog/standards/sist/7dc351e7-207e-45c2-9b2c-3f37873bdf94/sist-en-60332-3-21-2010)

<https://standards.iteh.ai/catalog/standards/sist/7dc351e7-207e-45c2-9b2c-3f37873bdf94/sist-en-60332-3-21-2010>

Endorsement notice

The text of the International Standard IEC 60332-2-21:2000 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

Title

Replace the existing title by the following new title:

Tests on electric and optical fibre cables under fire conditions – Part 3-21: Test for vertical flame spread of vertically-mounted bunched wires or cables – Category A F/R

Introduction

Replace the third sentence of the fourth paragraph by:

“In all categories, cables having at least one conductor of cross-sectional area greater than 35 mm² are tested in a spaced configuration, whereas cables of conductor cross-sectional area of 35 mm² or smaller and optical cables are tested in a touching configuration.”

Delete the last paragraph that begins with “Additional categories, ...”.

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<https://standards.iteh.ai/catalog/standards/sist/7dc351e7-207e-45c2-9b2c-3f37873bdf94/sist-en-60332-3-21-2010>

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 Where 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 60332-3-10	- ¹⁾	Tests on electric and optical fibre cables under fire conditions - Part 3-10: Test for vertical flame spread of vertically-mounted bunched wires or cables - Apparatus	EN 60332-3-10	2009 ²⁾
IEC 60695-4	- ¹⁾	Fire hazard testing - Part 4: Terminology concerning fire tests	EN 60695-4	2006 ²⁾
IEC 60811-1-3	- ¹⁾	Insulating and sheathing materials of electric and optical cables - Common test methods - Part 1-3: General application - Methods for determining the density - Water absorption tests - Shrinkage test	EN 60811-1-3	1995 ²⁾
IEC Guide 104	- ¹⁾	The preparation of safety publications and the use of basic safety publications and group safety publications	-	-

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

60332-3-21

Première édition
First edition
2000-10

PUBLICATION GROUPEE DE SÉCURITÉ
GROUP SAFETY PUBLICATION

Essais des câbles électriques soumis au feu –

Partie 3-21:

**Essai de propagation verticale de la flamme des
fils ou câbles en nappes en position verticale –
Catégorie A F/R**

ITC STANDARD PREVIEW

(standards.iteh.ai)

Tests on electric cables under fire conditions –

[SIST EN 60332-3-21:2010](https://standards.iteh.ai/catalog/standards/sist/7dc351e7-207e-45c2-9b2c-3f7873bdf94/sist-en-60332-3-21-2010)

[https://standards.iteh.ai/catalog/standards/sist/7dc351e7-207e-45c2-9b2c-](https://standards.iteh.ai/catalog/standards/sist/7dc351e7-207e-45c2-9b2c-3f7873bdf94/sist-en-60332-3-21-2010)

Part 3-21:

**Test for vertical flame spread of vertically-mounted
bunched wires or cables – Category A F/R**

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International Electrotechnical Commission
Telefax: +41 22 919 0300

3, rue de Varembe Geneva, Switzerland
e-mail: inmail@iec.ch IEC web site <http://www.iec.ch>



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

TESTS ON ELECTRIC CABLES UNDER FIRE CONDITIONS –**Part 3-21: Test for vertical flame spread of vertically-mounted bunched wires or cables – Category A F/R**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The 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 the 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 National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
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- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 60332-3-21 has been prepared by IEC technical committee 20: Electric cables.

It has the status of a group safety publication in accordance with IEC Guide 104.

IEC 60332-3-21 forms one of a series of publications dealing with tests on electric cables under fire conditions; the series supersedes IEC 60332-3 published in 1992. The parts of the series are described in the introduction.

All pre-existing categories of test are retained and updated. A new category (category D) has been added to cater for testing at very low non-metallic volumes.

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

FDIS	Report on voting
20/403/FDIS	20/427/RVD

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 3.