
**Električni in optični kabli - Preskuševalne metode za nekovinske materiale - 401.
del: Drugi preskusi - Metode termičnega staranja - Staranje v zračni peči (na vroči
zrak)**

Electric and optical fibre cables - Test methods for non-metallic materials - Part 401:
Miscellaneous tests - Thermal ageing methods - Ageing in an air oven

Kabel, isolierte Leitungen und Glasfaserkabel - Prüfverfahren für nichtmetallene
Werkstoffe - Teil 401: Sonstige Prüfungen - Thermische Alterungsverfahren - Alterung im
Wärmeschrank

Câbles électriques et câbles à fibres optiques - Méthodes d'essai pour les matériaux non
-métalliques - Partie 401: Essais divers - Méthode de vieillissement thermique -
Vieillessement en étuve à air

Ta slovenski standard je istoveten z: EN 60811-401:2012

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29.035.01	Izolacijski materiali na splošno	Insulating materials in general
29.060.20	Kabli	Cables

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EUROPEAN STANDARD
NORME EUROPÉENNE
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EN 60811-401

June 2012

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Supersedes EN 60811-1-2:1995 (partially) + A2:2000 (partially)

English version

**Electric and optical fibre cables -
Test methods for non-metallic materials -
Part 401: Miscellaneous tests -
Thermal ageing methods -
Ageing in an air oven
(IEC 60811-401:2012)**

Câbles électriques et à fibres optiques -
Méthodes d'essai pour les matériaux non-
métalliques -
Partie 401: Essais divers -
Méthodes de vieillissement thermique -
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CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, 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, Turkey and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 20/1285/FDIS, future edition 1 of IEC 60811-401, prepared by IEC/TC 20 "Electric cables" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60811-401:2012.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2013-01-16
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-04-16

This document supersedes 8.1 and 8.4 of EN 60811-1-2:1995 + A2:2000 (partially). Full details of the replacements are shown in Annex A of EN 60811-100:2012.

There are no technical changes with respect to EN 60811-1-2:1995 + A2:2000, but see the Foreword to EN 60811-100:2012.

This standard is to be read in conjunction with EN 60811-100.

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This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC)

Endorsement notice

The text of the International Standard IEC 60811-401:2012 was approved by CENELEC as a European Standard without any modification.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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 60228	-	Conductors of insulated cables	EN 60228	-
IEC 60811-100	2012	Electric and optical fibre cables - Test methods for non-metallic materials - Part 100: General	EN 60811-100	2012
IEC 60811-409	-	Electric and optical fibre cables - Test methods for non-metallic materials - Part 409: Miscellaneous tests - Loss of mass test for thermoplastic insulations and sheaths	EN 60811-409	-
IEC 60811-501	-	Electric and optical fibre cables - Test methods for non-metallic materials - Part 501: Mechanical tests - Tests for determining the mechanical properties of insulating and sheathing compounds	EN 60811-501	-
IEC 60811-504	-	Electric and optical fibre cables - Test methods for non-metallic materials - Part 504: Mechanical tests - Bending tests at low temperature for insulation and sheaths	EN 60811-504	-

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electric and optical fibre cables – Test methods for non-metallic materials –
Part 401: Miscellaneous tests – Thermal ageing methods – Ageing in an air oven**

**Câbles électriques et à fibres optiques – Méthodes d'essai pour les matériaux
non-métalliques –
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Vieillissement en étuve à air**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTRIC AND OPTICAL FIBRE CABLES –
TEST METHODS FOR NON-METALLIC MATERIALS –**
**Part 401: Miscellaneous tests –
Thermal ageing methods – Ageing in an air oven**

FOREWORD

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International Standard IEC 60811-401 has been prepared by IEC technical committee 20: Electric cables.

This Part 401 of IEC 60811 cancels and replaces 8.1 and 8.4 of IEC 60811-1-2:1985, which is withdrawn. Full details of the replacements are shown in Annex A of IEC 60811-100:2012.

There are no specific technical changes with respect to the previous edition, but see the Foreword to IEC 60811-100:2012.

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

FDIS	Report on voting
20/1285/FDIS	20/1334/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 2.

This part of IEC 60811 shall be used in conjunction with IEC 60811-100.

A list of all the parts in the IEC 60811 series, published under the general title *Electric and optical fibre cables – Test methods for non-metallic materials*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability 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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INTRODUCTION

The IEC 60811 series specifies the test methods to be used for testing non-metallic materials of all types of cables. These test methods are intended to be referenced in standards for cable construction and for cable materials.

NOTE 1 Non-metallic materials are typically used for insulating, sheathing, bedding, filling or taping within cables.

NOTE 2 These test methods are accepted as basic and fundamental and have been developed and used over many years principally for the materials in all energy cables. They have also been widely accepted and used for other cables, in particular optical fibre cables, communication and control cables and cables for ships and offshore applications.

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