



National Standards Authority of Ireland

STANDARD

I.S. EN 60811-4-2:2004

ICS 29.035.20
29.060.20

**INSULATING AND SHEATHING MATERIALS
OF ELECTRIC AND OPTICAL CABLES -
COMMON TEST METHODS PART 4-2:
METHODS SPECIFIC TO POLYETHYLENE
AND POLYPROPYLENE COMPOUNDS -
TENSILE STRENGTH AND ELONGATION AT
BREAK AFTER CONDITIONING AT ELEVATED
TEMPERATURE - AGEING IN AIR -
MEASUREMENT OF MASS INCREASE -
LONG-TERM STABILITY TEST - TEST
METHOD FOR COPPER-CATALYZED
OXIDATIVE DEGRADATION (IEC
60811-4-2:2004)**

National Standards
Authority of Ireland
Dublin 9
Ireland

Tel: (01) 807 3800
Fax: (01) 807 3838

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EUROPEAN STANDARD

EN 60811-4-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 2004

ICS 29.035.20; 29.060.20

Supersedes EN 60811-4-2:1999

English version

**Insulating and sheathing materials of electric and optical cables –
Common test methods
Part 4-2: Methods specific to polyethylene and polypropylene compounds -
Tensile strength and elongation at break after conditioning at elevated temperature -
Wrapping test after conditioning at elevated temperature - Wrapping test after thermal
ageing in air - Measurement of mass increase - Long-term stability test -
Test method for copper-catalyzed oxidative degradation
(IEC 60811-4-2:2004)**

Matériaux d'isolation et de gainage des câbles électriques et optiques - Méthodes d'essai communes
Partie 4-2: Méthodes spécifiques pour les mélanges polyéthylène et polypropylène - Résistance à la traction et allongement à la rupture après conditionnement à température élevée - Essai d'enroulement après conditionnement à température élevée - Essai d'enroulement après vieillissement thermique dans l'air - Mesure de l'augmentation de masse - Essai de stabilité à long terme - Méthode d'essai pour l'oxydation catalytique par le cuivre
(CEI 60811-4-2:2004)

Isolier- und Mantelwerkstoffe für Kabel und isolierte Leitungen - Allgemeine Prüfverfahren
Teil 4-2: Besondere Prüfverfahren für Polyethylen- und Polypropylen-Mischungen - Zugfestigkeit und Reißdehnung nach Vorbehandlung bei erhöhter Temperatur - Wickelprüfung nach Vorbehandlung bei erhöhter Temperatur - Wickelprüfung nach thermischer Alterung in Luft - Messung der Masseaufnahme - Langzeit(Lebensdauer)-Prüfung - Prüfverfahren der Sauerstoffalterung unter Kupfereinfluss
(IEC 60811-4-2:2004)

This European Standard was approved by CENELEC on 2004-07-01. 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and 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 20/686/FDIS, future edition 2 of IEC 60811-4-2, prepared by IEC TC 20, Electric cables, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60811-4-2 on 2004-07-01.

This European Standard supersedes EN 60811-4-2:1999.

The principal changes with respect to EN 60811-4-2:1999 are:

- a) a measurement of tensile strength is included in Clause 8;
- b) Clause 10 is now the only method in EN 60811 for the wrapping test after thermal ageing in air;
- c) two ageing conditions are now specified for the long-term stability test in Annex A.

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) 2005-04-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2007-07-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60811-4-2:2004 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 60811-5-1 NOTE Harmonized as EN 60811-5-1:1999 (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 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 60811-1-1	1993	Insulating and sheathing materials of electric and optical cables - Common test methods Part 1-1: General application - Measurement of thickness and overall dimensions - Tests for determining the mechanical properties	EN 60811-1-1	1995
IEC 60811-1-3	1993	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
ISO 188	1998	Rubber, vulcanized or thermoplastic Accelerated ageing and heat resistance tests	-	-

**NORME
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60811-4-2

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2004-05

**Matériaux d'isolation et de gainage des câbles
électriques et optiques – Méthodes d'essais
communes –**

Partie 4-2:

Méthodes spécifiques pour les mélanges polyéthylène et polypropylène – Résistance à la traction et allongement à la rupture après conditionnement à température élevée – Essai d'enroulement après conditionnement à température élevée – Essai d'enroulement après vieillissement thermique dans l'air – Mesure de l'augmentation de masse – Essai de stabilité à long terme – Méthode d'essai pour l'oxydation catalytique par le cuivre

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