

**Elektrilised kaablid ja optilised kiudkaablid.  
Mittemetallmaterjalide katsetusviisid. Osa 406:  
Mitmesugused katsetused. Polüeteen- ja  
polüpropeenkompaundide vastupidavus  
löökpragunemisele**

**Electric and optical fibre cables - Test methods for non-  
metallic materials - Part 406: Miscellaneous tests -  
Resistance to stress cracking of polyethylene and  
polypropylene compounds**

## EESTI STANDARDI EESSÕNA

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See Eesti standard EVS-EN 60811-406:2012 sisaldab Euroopa standardi EN 60811-406:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 60811-406:2012 consists of the English text of the European standard EN 60811-406:2012.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English version

**Electric and optical fibre cables -  
Test methods for non-metallic materials -  
Part 406: Miscellaneous tests -  
Resistance to stress cracking of polyethylene and polypropylene  
compounds  
(IEC 60811-406:2012)**

Câbles électriques et à fibres optiques -  
Méthodes d'essai pour les matériaux non-  
métalliques -  
Partie 406: Essais divers -  
Résistance des mélanges polyéthylène et  
polypropylène aux craquelures  
(CEI 60811-406:2012)

Kabel, isolierte Leitungen und  
Glasfaserkabel -  
Prüfverfahren für nichtmetallene  
Werkstoffe -  
Teil 406: Sonstige Prüfungen -  
Prüfung der Spannungsrissbeständigkeit  
von Polyethylen- und  
Polypropylenmischungen  
(IEC 60811-406:2012)

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Comité Européen de Normalisation Electrotechnique  
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**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 20/1290/FDIS, future edition 1 of IEC 60811-406, prepared by IEC/TC 20 "Electric cables" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60811-406:2012.

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-04-16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 Clause 8 of EN 60811-4-1:2004 (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 60811-4-1:2004, but see the Foreword to EN 60811-100:2012.

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

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

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 60811-406:2012 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 60811-100	2012	Electric and optical fibre cables - Test methods for non-metallic materials - Part 100: General	EN 60811-100	2012

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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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# ELECTRIC AND OPTICAL FIBRE CABLES – TEST METHODS FOR NON-METALLIC MATERIALS –

## Part 406: Miscellaneous tests – Resistance to stress cracking of polyethylene and polypropylene compounds

### 1 Scope

This Part 406 of IEC 60811 gives the procedure for evaluating the resistance to stress cracking of polyethylene and polypropylene compounds which are typically used for communication and optical fibre cables.

### 2 Normative references

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.

IEC 60811-100:2012, *Electric and optical fibre cables – Test methods for non-metallic materials – Part 100: General*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60811-100 apply.

### 4 Test method

#### 4.1 General

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

Unless otherwise specified, tests shall be carried out at room temperature.

Two test procedures can be applied to materials, depending on cable system conditions and environments; a summary of test conditions is given in Table 1:

- for less severe conditions: Method A;
- for more severe conditions: Method B.

These test procedures apply only to the original granules used as sheathing materials.