

**Elektrilised kaablid ja optilised kiudkaablid.
Mittemetallmaterjalide katsetusviisid. Osa 605:
Füüsikalised katsetused. Mustsüsi- ja/või
mineraaltäiteaine mõõtmise polüeteenkompaundides**

**Electric and optical fibre cables - Test methods for non-
metallic materials - Part 605: Physical tests -
Measurement of carbon black and/or mineral filler in
polyethylene compounds**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 60811-605:2012 sisaldab Euroopa standardi EN 60811-605:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 60811-605:2012 consists of the English text of the European standard EN 60811-605:2012.
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English version

**Electric and optical fibre cables -
Test methods for non-metallic materials -
Part 605 : Physical tests -
Measurement of carbon black and/or mineral filler in polyethylene
compounds
(IEC 60811-605:2012)**

Câbles électriques et à fibres optiques -
Méthodes d'essai pour les matériaux non-
métalliques -
Partie 605: Essais physiques -
Mesure du taux de noir de carbone et/ou
des charges minérales dans les mélanges
en polyéthylène
(CEI 60811-605:2012)

Kabel, isolierte Leitungen und
Glasfaserkabel -
Prüfverfahren für nichtmetallene
Werkstoffe -
Teil 605: Physikalische Prüfungen -
Messung des Ruß- und/oder
Füllstoffgehalts in Polyethylenmischungen
(IEC 60811-605:2012)

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CENELEC

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

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Foreword

The text of document 20/1314/FDIS, future edition 1 of IEC 60811-605, prepared by IEC/TC 20 "Electric cables" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60811-605:2012.

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) 2013-01-17
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2015-04-17

This document supersedes Clauses 11 and 12 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 60811-605:2012 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

CONTENTS

FOREWORD.....	3
INTRODUCTION.....	5
1 Scope.....	6
2 Normative references	6
3 Terms and definitions	6
4 Test method	6
4.1 General.....	6
4.2 Method A – Measurement of carbon black and/or mineral filler content in polyethylene by direct combustion.....	6
4.2.1 Sample and test piece preparation	6
4.2.2 Test procedure	6
4.2.3 Expression of results	7
4.3 Method B – Thermogravimetric analysis of the carbon black content in polyolefin compounds.....	7
4.3.1 Principle	7
4.3.2 Reagents.....	8
4.3.3 Apparatus.....	8
4.3.4 Procedure.....	8
5 Test report.....	8
Bibliography.....	9

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.

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

Part 605: Physical tests – Measurement of carbon black and/or mineral filler in polyethylene compounds

1 Scope

This Part 605 of IEC 60811 describes the test methods for measuring the content of carbon black added for UV stabilization of polyethylene and polyolefin compounds. These methods are not suitable for halogenated compounds.

Method A is suitable only for polyethylene and polypropylene compounds.

Method B is suitable for polyolefine compounds.

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.

4.2 Method A – Measurement of carbon black and/or mineral filler content in polyethylene by direct combustion

4.2.1 Sample and test piece preparation

A sample of the outer covering or sheath of sufficient weight shall be taken from one end of the cable. The sample shall be cut in pieces, the dimensions of which shall not exceed 5 mm in any direction.

4.2.2 Test procedure

A combustion boat about 75 mm long shall be heated until it is red hot, allowed to cool in the desiccator for at least 30 min and weighed to the nearest 0,000 1 g. A sample of polyethylene