Elektrilised kaablid ja optilised kiudkaablid. Mittemetallmaterjalide katsetusviisid. Osa 405: Mitmesugused katsetused. Polüvinüülkloriidisolatsiooni ja polüvinüülkloriidmantlite soojusliku stabiilsuse katsetamine

Electric and optical fibre cables - Test methods for non-metallic materials - Part 405: Miscellaneous tests - Thermal stability test for PVC insulations and PVC sheaths

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 60811-405:2012 sisaldab Euroopa standardi EN 60811-405:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 60811-405:2012 consists of the English text of the European standard EN 60811-405:2012.
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.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 15.06.2012.	Date of Availability of the European standard is 15.06.2012.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 29.035.01, 29.060.20

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60811-405

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ICS 29.035.01; 29.060.20

Supersedes EN 60811-3-2:1995 (partially) + A2:2004 (partially)

English version

Electric and optical fibre cables - Test methods for non-metallic materials - Part 405: Miscellaneous tests - Thermal stability test for PVC insulations and PVC sheaths

(IEC 60811-405:2012)

Câbles électriques et à fibres optiques - Méthodes d'essai pour les matériaux non-métalliques - Partie 405: Essais divers - Essai de stabilité thermique pour les enveloppes isolantes et gaines en PVC (CEI 60811-405:2012)

Kabel, isolierte Leitungen und Glasfaserkabel - Prüfverfahren für nichtmetallene Werkstoffe - Teil 405: Sonstige Prüfungen - Prüfung der thermischen Stabilität von PVC-Isolierhüllen und PVC-Mänteln (IEC 60811-405:2012)

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

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Foreword

The text of document 20/1289/FDIS, future edition 1 of IEC 60811-405, prepared by IEC/TC 20 "Electric cables" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60811-405:2012.

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 9 of EN 60811-3-2:1995 + A2:2004 (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 60811-3-2:1995 + A2:2004, 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 60811-405:2012 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.

Publication	Year	Title	EN/HD	Year
IEC 60811-100	2012	Electric and optical fibre cables - Test methods for non-metallic materials - Part 100: General	EN 60811-100	2012
ISO 695	1991	Glass - Resistance to attack by a boiling aqueous solution of mixed alkali - Method of test and classification	-	-
ISO 719	1985	Glass - Hydrolytic resistance of glass grains at 98 degrees C - Method of test and classification	-	-
ISO 1776	1985	Glass - Resistance to attack by hydrochloric acid at 100 degrees C - Flame emission or flame atomic absorption spectrometric method	-	-

CONTENTS

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 405: Miscellaneous tests – Thermal stability test for PVC insulations and PVC sheaths

1 Scope

This Part 405 of IEC 60811 specifies the procedure for the thermal stability test which applies to PVC 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*

ISO 695:1991, *Glass – Resistance to attack by a boiling aqueous solution of mixed alkali – Method of test and classification*

ISO 719:1985, *Glass – Hydrolytic resistance of glass grains at 98 degrees C – Method of test and classification*

ISO 1776:1985, *Glass – Resistance to attack by hydrochloric acid at 100 degrees C – Flame emission or flame atomic absorption spectrometric method*

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 Apparatus

The following apparatus shall be used:

a) Glass tubes closed at one end (e.g. by melting), 110 mm long with an outer diameter of approximately 5 mm and an inner diameter of (4,0 ± 0,5) mm.

   Tubes made of AR-glass shall be used complying with

   – ISO 695:1991; Alkali resistance, Class A2,

   – ISO 719:1985; Hydrolytic resistance, Class HGB3,