Irish Standard
I.S. EN 50200:2015

Method of test for resistance to fire of unprotected small cables for use in emergency circuits

I.S. EN 50200:2015

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

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Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 50200:2015 is the adopted Irish version of the European Document EN 50200:2015, Method of test for resistance to fire of unprotected small cables for use in emergency circuits

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 50200

December 2015

ICS 13.220.40; 29.035.20

Supersedes EN 50200:2006

English Version

Method of test for resistance to fire of unprotected small cables for use in emergency circuits

Méthode d'essai de la résistance au feu des câbles de petites dimensions sans protection pour utilisation dans les circuits de secours

Prüfung des Isolationserhaltes im Brandfall von Kabeln mit kleinen Durchmessern für die Verwendung in Notstromkreisen bei ungeschützter Verlegung

This European Standard was approved by CENELEC on 2015-09-14. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, 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.

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

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European foreword

This document (EN 50200:2015) has been prepared by Working Group 10 of CLC/TC 20 “Electric cables”.

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)	2016-09-14
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2018-09-14

This document supersedes EN 50200:2006.

The main changes compared to EN 50200:2006 are as follows (minor changes are not listed):

– detailed procedures for metallic data cables and for optical fibre cables have been removed as they are now given in the relevant standards of CLC/TC 46X and CLC/TC 86A. These standards refer to EN 50200 for the basic test method;

– recasting and extension of the existing Annex D into two new Annexes, Annex B “Field of direct application and extended application of test results (Electric power and control cables with rated voltage up to and including 600 V/1 000 V) and Annex D “Information regarding classification”.

The cable is tested in a representative installed condition, under conditions of minimum bending radius, and the test is based upon a constant temperature attack at a minimum test temperature of 830 °C. This is typical of the gas temperature reached after 30 min exposure to the time/temperature conditions prescribed in EN 1363-1.

The test method in this document includes exposure to fire with mechanical shock under specified conditions and satisfies the requirements of Mandate M/117 for the PH classification. This European Standard also includes (Annex E) a means of applying a water spray to the cable during the test, which is not required under Mandate M/117.

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 document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association.

1 Scope

This European Standard specifies the test method for cables designed to have intrinsic resistance to fire and intended for use as emergency circuits for alarm, lighting and communication purposes.

This European Standard is applicable to cables for emergency circuits of rated voltage not exceeding 600 V/1 000 V, including those of rated voltage below 80 V and optical fibre cables.

This European Standard includes details for the specific point of failure, continuity checking arrangement, test sample, test procedure and test report relevant to electric power and control cables with rated voltage up to and including 600 V/1 000 V. Details for the specific point of failure, continuity checking arrangement, test sample, test procedure and test report relevant to copper data and telecom cables and optical cables are given in the relevant standards of CLC/TC 46X and CLC/TC 86A.

The test method is limited to cables with an overall diameter not exceeding 20 mm.

The test method is based on the direct impingement of flame from a propane burner giving a constant temperature attack of a notional 842 °C. It is intended to be used for cables for emergency circuits suitable for alarm, emergency lighting and communication.

NOTE When the test method is used in support of EN 13501–3, it only applies to cables of less than 20 mm diameter, and, for metallic conductor cables, to those with conductor sizes up to and including 2,5 mm^2. For optical cables, only the less than 20 mm diameter limit applies.

This European Standard includes (Annex B) the field of direct application and rules for extended application of test results (EXAP). Details regarding classification using data from this test are given in EN 13501-3 [1)]. Information regarding classification is given in Annex D.

This European Standard also includes informative guidance (Annex E) on a means of applying a water spray to the cable during the test. Such a requirement may be a feature of particular product standards.

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.

EN 13501-3, *Fire classification of construction products and building elements - Part 3: Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ducts and fire dampers*

EN 60584-1, *Thermocouples - Part 1: EMF specifications and tolerances (IEC 60584-1)*

EN 60695-4, *Fire hazard testing - Part 4: Terminology concerning fire tests for electrotechnical products (IEC 60695-4)*

EN ISO 13943, *Fire safety - Vocabulary (ISO 13943)*

1) At the time of finalizing EN 50200, an amendment to EN 13501-3:2005+A1:2009 concerning cables is under consideration in CEN/TC 127.