



NSAI
Standards

Irish Standard
I.S. EN 16733:2016

Reaction to fire tests for building products - Determination of a building product's propensity to undergo continuous smouldering

I.S. EN 16733:2016

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.

This document is based on:

EN 16733:2016

Published:

2016-05-04

*This document was published
under the authority of the NSAI
and comes into effect on:*

2016-05-22

ICS number:

13.220.50

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

National Foreword

I.S. EN 16733:2016 is the adopted Irish version of the European Document EN 16733:2016, Reaction to fire tests for building products - Determination of a building product's propensity to undergo continuous smouldering

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.

This page is intentionally left blank

EUROPEAN STANDARD

EN 16733

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2016

ICS 13.220.50

English Version

Reaction to fire tests for building products - Determination of a building product's propensity to undergo continuous smouldering

Essais de réaction au feu pour les produits de
construction - Détermination de la propension d'un
produit de construction à subir un feu couvant continu

Prüfungen zum Brandverhalten von Bauprodukten -
Bestimmung der Neigung eines Bauprodukts zum
kontinuierlichen Schwelen

This European Standard was approved by CEN on 12 February 2016.

CEN 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 CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents	Page
European foreword.....	3
Introduction	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions	5
4 Principle	6
5 Test apparatus.....	6
5.1 Main apparatus	6
5.1.1 Test specimen holder	7
5.1.2 Wire mesh box.....	7
5.1.3 Propane burner	7
5.1.4 Thermocouples in the test specimen	7
5.1.5 Recording device	7
5.2 Additional equipment.....	8
5.2.1 Flowmeter.....	8
5.2.2 Timing device	8
5.2.3 Anemometer	8
5.2.4 Fire extinguishing board	8
6 Test specimens.....	8
6.1 General.....	8
6.2 Dimensions and number of test specimens.....	8
6.3 Loose fill materials	8
7 Conditioning of specimens.....	8
8 Test procedure.....	9
9 Termination of test.....	9
10 Expression of results.....	10
11 Performance criteria and declaration.....	10
12 Direct and extended application of test results	10
13 Test report.....	11
Annex A (informative) Precision of the method	19
A.1 General.....	19
A.2 Conclusions	20
Bibilography.....	21

European foreword

This document (EN 16733:2016) has been prepared by Technical Committee CEN/TC 127 “Fire safety in buildings”, the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2016, and conflicting national standards shall be withdrawn at the latest by February 2018.

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

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

This standard is produced in response to the EC mandate M/385. CEN/TC 127 was requested to develop this test method to determine possible glowing combustion behaviour in building products. This test method forms part of the present EC classification system for the reaction to fire.

Task Group 6 of CEN TC 127/WG4 was created to develop this test method. In the early stages of its development, it was found that the term ‘glowing combustion’ as defined in EN ISO 13943 does not completely characterize the specific combustion behaviour of a building product. In particular, the increase of temperature which is considered as typical for the process of smouldering is not considered in the EN ISO 13943 definition. Therefore the task group made a clarification and changed the term glowing combustion to smouldering combustion. Smouldering is defined in this standard as ‘combustion of a material without flame and with or without visible light’. This includes glowing combustion.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 16733:2016 (E)**Introduction**

This test method has been developed considering methods NT FIRE 002 and NT FIRE 035 and standards BS 5803-4 and Önorm B 3800. It specifies a test for determining the propensity of products to smoulder continuously when tested in a vertical orientation. The method does not impose a mechanically influenced airflow through the test specimens since this would not represent most end-use conditions.

Safety warning

The attention of all persons concerned with managing and carrying out this test is drawn to the fact that fire testing may be hazardous and that there is a possibility that toxic and/or harmful smoke and gases may be evolved during the test. Operational hazards may also arise during the testing of specimens and the disposal of test residues.

An assessment of all potential hazards and risks to health should be made and safety precautions should be identified and provided. Written safety instructions should be issued. Appropriate training should be given to relevant personnel. Laboratory personnel should ensure that they follow written safety instructions at all times.

Adequate means of extinguishing the specimen should be provided, bearing in mind that some specimens may produce severe flaming during the test. A hand water spray or an inert gas suppression system e.g. compressed nitrogen which can be directed to the burning area should be available together with other means, such as fire extinguishers etc.

In some cases, smouldering may be difficult to extinguish completely and immersion in water may be necessary.

1 Scope

This European Standard specifies a test method to determine the propensity (ability) of a building product to smoulder continuously when exposed to an open flame under the influence of natural convective airflow.

It is intended for all building products classified according to EN 13501-1. Details as to how the products is mounted and fixed for this test are given in the relevant product standards. The field of application of the test results is defined in the 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 13238 *Reaction to fire tests for building products — Conditioning procedures and general rules for selection of substrates*

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

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 13943 and the following apply.

3.1

product

material, composite or assembly about which information is required

3.2

material

basic single substance or a uniformly dispersed mixture of substances e.g. metal, stone, wood, concrete, mineral wool

3.3

composite

combination of materials which are generally recognised as discrete entities e.g. coated or laminated materials

3.4

assembly

fabrication of materials and/or composites e.g. sandwich panels

3.5

exposed surface

surface of the product which is subjected to the heating conditions of the test

3.6

test specimen

representative piece of the sample (prepared for testing in accordance with instruction)

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- Looking for additional Standards? Visit Intertek Inform Infostore
 - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-