



**NSAI**  
Standards

Irish Standard  
I.S. EN ISO 1182:2010

# Reaction to fire tests for products - Non-combustibility test (ISO 1182:2010)

## I.S. EN ISO 1182:2010

*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.

<i>This document replaces:</i> EN ISO 1182:2002	<i>This document is based on:</i> EN ISO 1182:2010 EN ISO 1182:2002	<i>Published:</i> 15 May, 2010 22 February, 2002
This document was published under the authority of the NSAI and comes into effect on: 4 June, 2010		ICS number: 13.220.50
<div> <div> <b>NSAI</b>  1 Swift Square,  Northwood, Santry  Dublin 9 </div> <div> T +353 1 807 3800  F +353 1 807 3838  E standards@nsai.ie  W NSAI.ie </div> <div> <b>Sales:</b>  T +353 1 857 6730  F +353 1 857 6729  W standards.ie </div> </div>		
Údarás um Chaighdeáin Náisiúnta na hÉireann		

I.S. EN ISO 1182:2010

EUROPEAN STANDARD

**EN ISO 1182**

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2010

ICS 13.220.50

Supersedes EN ISO 1182:2002

English Version

## Reaction to fire tests for products - Non-combustibility test (ISO 1182:2010)

Essais de réaction au feu de produits - Essai d'incombustibilité (ISO 1182:2010)

Prüfungen zum Brandverhalten von Bauprodukten - Nichtbrennbarkeitsprüfung (ISO 1182:2010)

This European Standard was approved by CEN on 19 April 2010.

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 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 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

## **Contents**

Page

<b>Foreword.....</b>	<b>3</b>
----------------------	----------

## **Foreword**

This document (EN ISO 1182:2010) has been prepared by Technical Committee ISO/TC 92 "Fire safety" in collaboration with 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 2010, and conflicting national standards shall be withdrawn at the latest by November 2010.

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 supersedes EN ISO 1182:2002.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

### **Endorsement notice**

The text of ISO 1182:2010 has been approved by CEN as a EN ISO 1182:2010 without any modification.

*This page is intentionally left BLANK.*

I.S. EN ISO 1182:2010

EUROPEAN STANDARD

**EN ISO 1182**

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2010

ICS 13.220.50

Supersedes EN ISO 1182:2002

English Version

## Reaction to fire tests for products - Non-combustibility test (ISO 1182:2010)

Essais de réaction au feu de produits - Essai d'incombustibilité (ISO 1182:2010)

Prüfungen zum Brandverhalten von Bauprodukten - Nichtbrennbarkeitsprüfung (ISO 1182:2010)

This European Standard was approved by CEN on 19 April 2010.

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 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 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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

**Management Centre: Avenue Marnix 17, B-1000 Brussels**

## **Contents**

Page

<b>Foreword.....</b>	<b>3</b>
----------------------	----------

## **Foreword**

This document (EN ISO 1182:2010) has been prepared by Technical Committee ISO/TC 92 "Fire safety" in collaboration with 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 2010, and conflicting national standards shall be withdrawn at the latest by November 2010.

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 supersedes EN ISO 1182:2002.

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, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

### **Endorsement notice**

The text of ISO 1182:2010 has been approved by CEN as a EN ISO 1182:2010 without any modification.

*This page is intentionally left BLANK.*

I.S. EN ISO 1182:2010  
**INTERNATIONAL  
STANDARD**

**ISO  
1182**

Fifth edition  
2010-05-15

---

---

**Reaction to fire tests for products —  
Non-combustibility test**

*Essais de réaction au feu de produits — Essai  
d'incombustibilité*



Reference number  
ISO 1182:2010(E)

© ISO 2010

**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2010

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

<b>Foreword .....</b>	<b>iv</b>
<b>Introduction.....</b>	<b>v</b>
<b>1 Scope .....</b>	<b>1</b>
<b>2 Normative references .....</b>	<b>1</b>
<b>3 Terms and definitions .....</b>	<b>1</b>
<b>4 Apparatus .....</b>	<b>2</b>
4.1 General .....	2
4.2 Furnace, draught shield and stand.....	3
4.3 Specimen holder and insertion device.....	3
<b>5 Test specimen.....</b>	<b>9</b>
5.1 General .....	9
5.2 Preparation.....	9
5.3 Number .....	10
<b>6 Conditioning .....</b>	<b>10</b>
<b>7 Test procedure.....</b>	<b>10</b>
7.1 Test environment.....	10
7.2 Set-up procedure.....	11
7.3 Calibration procedure .....	12
7.4 Standard test procedure .....	16
7.5 Observations during test.....	17
<b>8 Expression of results .....</b>	<b>17</b>
8.1 Mass loss.....	17
8.2 Flaming.....	17
8.3 Temperature rise .....	18
<b>9 Test report.....</b>	<b>18</b>
<b>Annex A (informative) Precision of test method.....</b>	<b>19</b>
<b>Annex B (informative) Typical designs of test apparatus.....</b>	<b>22</b>
<b>Annex C (normative) Thermocouples for additional measurements .....</b>	<b>26</b>
<b>Annex D (informative) Temperature recording .....</b>	<b>28</b>
<b>Bibliography.....</b>	<b>32</b>

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 1182 was prepared by Technical Committee ISO/TC 92, *Fire safety*, Subcommittee SC 1, *Fire initiation and growth*.

This fifth edition cancels and replaces the fourth edition (ISO 1182:2002), which has been technically revised.

## **Introduction**

This fire test has been developed for use by those responsible for the selection of construction products which, whilst not completely inert, produce only a very limited amount of heat and flame when exposed to temperatures of approximately 750 °C.

The limitation of the field of application to testing homogeneous products and substantial components of non-homogeneous products was introduced because of problems in defining specifications for the specimens. The design of the specimen of non-homogeneous products strongly influences the test results, which is the reason non-homogeneous products cannot be tested to this International Standard.



# Reaction to fire tests for products — Non-combustibility test

**SAFETY PRECAUTIONS** — The attention of all persons concerned with managing and carrying out this test is drawn to the fact that fire testing can be hazardous and that there is a possibility that toxic, harmful smoke and gases can be evolved during the test. Operational hazards can 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.

## 1 Scope

This International Standard specifies a method of test for determining the non-combustibility performance, under specified conditions, of homogeneous products and substantial components of non-homogeneous products.

Information on the precision of the test method is given in Annex A.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 13943, *Fire safety — Vocabulary*

IEC 60584-2, *Thermocouples — Part 2: Tolerances*

EN 13238, *Reaction to fire tests for building products — Conditioning procedures and general rules for selection of substrates*

## 3 Terms and definitions

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

### 3.1

#### **product**

material, element or component about which information is required

### 3.2

#### **material**

single basic substance or uniformly dispersed mixture of substances

**NOTE** Examples of materials are metal, stone, timber, concrete, mineral wool with uniformly dispersed binder and polymers.

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
-