Irish Standard
I.S. EN 13823:2010+A1:2014

Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item

I.S. EN 13823:2010+A1:2014

Incorporating amendments/corrigenda/National Annexes issued since publication:

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English Version

Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item

Essais de réaction au feu des produits de construction - Produits de construction à l'exclusion des revêtements de sol exposés à une sollicitation thermique provoquée par un objet isolé en feu

Prüfungen zum Brandverhalten von Bauprodukten - Thermische Beanspruchung durch einen einzelnen brennenden Gegenstand für Bauprodukte mit Ausnahme von Bodenbelägen

This European Standard was approved by CEN on 25 June 2010 and includes Amendment 1 approved by CEN on 9 September 2014.

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Foreword

This document (EN 13823:2010+A1:2014) 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of an identical text or by endorsement, at the latest by May 2015, and conflicting national standards shall be withdrawn at the latest by August 2016.

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 includes Amendment 1 approved by CEN on 9 September 2014.

This document supersedes ▌A1⟩ EN 13823:2010 ⟨A1▌.

The start and finish of text introduced or altered by amendment is indicated in the text by tags ▌A1⟩ ⟨A1▌.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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Introduction

The classification of the reaction to fire performance of construction products established by EC Decision 2000/147/EC (OJEU L50 of 23.2.2000) defines in Table 1 the reaction to fire classes for building products excluding floorings. The relevant test methods for determining the reaction to fire are being prepared by CEN/TC 127.

Safety warning

The attention of all persons concerned with managing and carrying out the tests described in this standard is drawn to the fact that fire testing can be hazardous and that toxic and/or harmful smoke and gases can be produced during the test.

An assessment of all potential hazards and risks to health should be made and safety precautions should be identified and provided. Smoke and gases should be removed from the workplace. 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.

Special precautions are required for the propane gas supply system.

— The equipment, for example tubes, couplings, flow meters, should be approved for propane.

— The burner should be equipped with a remote-controlled ignition device, for example a pilot flame or a glow wire. There should be a warning system for leaking gas and a valve for immediate and automatic cut-off of the gas supply in case of extinction of the ignition flame. The pilot flames can be ignited directly by an operator in the test room, however, no one should be present in the test room during ignition of a burner.

— It should be possible to operate the switch between auxiliary and main (primary) burner and the preceding main valve (to open or stop the propane supply) from outside the test room.

Special precautions are required for the extinction of burning specimens.

When the extinction is carried out because of intensive combustion of the specimens, it is recommended that a second operator is ready to intervene. Means for extinguishing should be available (e.g. since the heat output during intensive combustion can damage the apparatus).

1 Scope

This European Standard specifies a method of test for determining the reaction to fire performance of construction products excluding floorings, and excluding products which are indicated in Table 1 of EC Decision 2000/147/EC, when exposed to thermal attack by a single burning item (SBI). The calculation procedures are given in Annex A. Information on the precision of the test method is given in Annex B. The calibration procedures are given in Annexes C and D, of which C is a normative annex.

NOTE This European Standard has been developed to determine the reaction to fire performance of essentially flat products. The treatment of some families of products, e.g. linear products (pipes, ducts, cables etc.), can need special rules.

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.

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

EN 13501-1:2007+A1:2009, *Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests*

EN 60584-1:1995, *Thermocouples — Part 1: Reference tables (IEC 60584-1:1995)*

EN ISO 13943:2000, *Fire safety — Vocabulary (ISO 13943:2000)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 13943:2000 and EN 13501-1:2007+A1:2009 and the following apply.

3.1
backing board
calcium silicate panel used to back the specimen that can be placed directly against a free-standing test specimen or at a distance from it

3.2
specimen
piece of a product, which is to be tested

NOTE This can include the mounting technique used in its end-use application. This also can include an air gap and/or a substrate where appropriate.

3.3
substrate
product which is used immediately beneath the product about which information is required

3.4
***THR*$_{600s}$**
total heat release from the specimen in the first 600 s of exposure to the main (primary) burner flames