BS EN 13501-4:2016

BSI Standards Publication

Fire classification of construction products and building elements

Part 4: Classification using data from fire resistance tests on components of smoke control systems

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This British Standard is the UK implementation of EN 13501-4:2016. It supersedes BS EN 13501-4:2007+A1:2009 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee FSH/22/-/9, Fire resistance tests for ducts, including smoke extract ducts.

A list of organizations represented on this committee can be obtained on request to its secretary.

ISBN 978 0 580 86569 5

ICS 13.220.50

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 July 2016.

Amendments/corrigenda issued since publication

Date	Text affected

EUROPEAN STANDARD **EN 13501-4**

NORME EUROPÉENNE

EUROPÄISCHE NORM

June 2016

ICS 13.220.50

Supersedes EN 13501-4:2007+A1:2009

English Version

Fire classification of construction products and building elements - Part 4: Classification using data from fire resistance tests on components of smoke control systems

Classement au feu des produits et éléments de construction - Partie 4: Classement à partir des données d'essais de résistance au feu des composants de dispositifs de contrôle de fumée

Klassifizierung von Bauprodukten und Bauarten zu ihrem Brandverhalten - Teil 4: Klassifizierung mit den Ergebnissen aus den Feuerwiderstandsprüfungen von Anlagen zur Rauchfreihaltung

This European Standard was approved by CEN on 23 April 2016.

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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.

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European foreword

This document (EN 13501-4:2016) has been prepared by Technical Committee CEN/TC 127 "Fire safety in buildings", the secretariat of which is held by BSI.

This document supersedes EN 13501-4:2007+A1:2009.

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 December 2016, and conflicting national standards shall be withdrawn at the latest by March 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.

CEN, CENELEC and EOTA committees preparing technical specifications which contain performance requirements against fire resistance tests can make reference to the fire resistance classification given in this European Standard and not refer directly to any specific fire test method.

EN 13501 *Fire classification of construction products and building elements* consists of the following parts:

— *Part 1: Classification using data from reaction to fire tests*

— *Part 2: Classification using data from fire resistance tests, excluding ventilation services*

— *Part 3: Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ducts and fire dampers*

— *Part 4: Classification using data from fire resistance tests on components of smoke control systems*

— *Part 5: Classification using data from external fire exposure to roof tests*

— *Part 6: Classification using data from reaction to fire tests on electric cables*

According to the CEN/CENELEC Internal Regulations, the national standards organisations 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.

Introduction

This European Standard defines a harmonized procedure for the classification for resistance to fire of construction products. This classification is based on the test procedures sited in the relevant documents listed in Clause 2 and the relevant field of application procedures.

This European Standard is prepared in support of the second basic requirement, in the EC Construction Products Regulation (305/2011) and is detailed in the Interpretative Document number 2 (ID2): Safety in case of fire (OJC62 Vol 37).

The Interpretative Document and the Commission Decision of 3 May 2000 specify performance and classes regarding fire resistance.

These classes are identified by designation letters, each of which refers to an important characteristic of fire resistance behaviour.

This European Standard provides for a common understanding for these requirements. It interprets the functional requirements for the different groups of building products/elements and explains the method for deriving their classification on the basis of test results and/or extended application results for individual products/elements.

NOTE Test reports constitute the basis for extended application reports as explained in EN 15725.

1 Scope

This European Standard specifies the procedure for classification of components of smoke control systems, using data from fire resistance tests which are within the field of application of the relevant test methods. Classification on the basis of extended application of test results is also included in the scope of this European Standard.

Products covered by this European Standard are:

— smoke control ducts;

— smoke control dampers;

— smoke barriers;

— powered smoke and heat control ventilators (fans), including connectors;

— natural smoke and heat exhaust ventilators.

Relevant documents which include the relevant test methods which have been prepared for these products are listed in Clause 2.

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 1363-1, *Fire resistance tests - Part 1: General Requirements*

EN 1363-2, *Fire resistance tests - Part 2: Alternative and additional procedures*

EN 1366-1, *Fire resistance tests for service installations - Part 1: Ventilation ducts*

EN 1366-2, *Fire resistance tests for service installations - Part 2: Fire dampers*

EN 1366-8, *Fire resistance tests for service installations - Part 8: Smoke extraction ducts*

EN 1366-9, *Fire resistance tests for service installations - Part 9: Single compartment smoke extraction ducts*

EN 1366-10, *Fire resistance tests for service installations - Part 10: Smoke control dampers*

EN 12101-1:2005, *Smoke and heat control systems - Part 1: Specification for smoke barriers*

EN 12101-2, *Smoke and heat control systems - Part 2: Specification for natural smoke and heat exhaust ventilators*

EN 12101-3, *Smoke and heat control systems - Part 3: Specification for powered smoke and heat control ventilators (Fans)*

EN 15725, *Extended application reports on the fire performance of construction products and building elements*