BSI Standards Publication

Fire classification of construction products and building elements

Part 2: Classification using data from fire resistance and/or smoke control tests, excluding ventilation services

bsi.

National foreword

This British Standard is the UK implementation of EN 13501-2:2023. It supersedes BS EN 13501-2:2016, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee FSH/22/-/15, EN 13501 Co-ordination Panel.

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

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English Version

Fire classification of construction products and building elements - Part 2: Classification using data from fire resistance and/or smoke control tests, excluding ventilation services

Classement au feu des produits et éléments de construction - Partie 2 : Classement à partir des données d'essais de résistance au feu et/ou de contrôle des fumées à l'exclusion des produits utilisés dans les systèmes de ventilation

Klassifizierung von Bauprodukten und Bauarten zu ihrem Brandverhalten - Teil 2: Klassifizierung mit Ergebnissen aus Feuerwiderstandsprüfungen und/oder Rauchschutzprüfungen, mit Ausnahme von Lüftungsanlagen

This European Standard was approved by CEN on 27 February 2023.

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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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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 13501-2:2023) 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of an identical text or by endorsement, at the latest by November 2023 and conflicting national standards shall be withdrawn at the latest by November 2023.

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

This document supersedes EN 13501-2:2016.

Changes have been made in this revision to bring it in line with the relevant current EC Decisions on fire resistance classification and experience in use of the first edition. In comparison with the previous edition, the following technical modifications have been made:

— in 7.5.2.1: adding reference to new EXAP standards;

— in all paragraphs concerned: introduction of proposal from CEN/TC 166 for chimney;

— in all paragraphs concerned: introduction of proposal for air transfer grilles;

— in all paragraphs concerned: introduction of EN 15882-5;

— in all paragraphs concerned: update on criterion description for load bearing elements (EN 1363-1):

— in 7.3.2: modification related to EN 1365-1;

— in 7.5.2.1: introduction of EN 15254-3;

— in 7.3.4.4: modification of classification table;

— in 7.5.9.4: modification of classification table.

— in 7.5.5.3.4: improvement and clarification on S_a to answer concerns/request from different national standardisation bodies.

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 and/or smoke control tests, excluding ventilation services*

— *Part 3: Classification using data from fire resistance tests on products and elements used in building service installations: fire resisting ventilation ducts and fire dampers and/or power, control and communication cables* (under revision)

— *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 power, control and communication cables*

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Introduction

The aim of this document is to define a harmonized procedure for the classification for fire resistance of construction products and building elements. This classification is based on the test procedures listed in Clause 2 and the relevant field of application procedures.

This document is prepared in support of the second basic requirement for construction works, in the REGULATION (EU) No 305/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2011 and is detailed in the Interpretative Document number 2 (ID2): Safety in case of fire (OJC62 Vol 37). It reflects the Commission Decision (EU) 2000/367/EC of 3 May 2000 amended by 2003/629/EC of 27 August 2003 and 2011/232/EC of 11 April 2011 as regards the classification of the resistance to fire performance of construction products, construction works and parts thereof.

CEN, CENELEC and EOTA committees preparing technical specifications which contain performance requirements against fire resistance tests are expected to refer to the fire resistance classification given in this document and not refer directly to any specific fire test method.

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

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

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

1 Scope

This document specifies the procedure for classification of construction products and building elements using data from fire resistance and/or smoke leakage/control tests and/or mechanical tests which are within the direct field of application of the relevant test method. Classification on the basis of extended application of test results is also included in the scope of this document.

This document deals with:

a) loadbearing elements without a fire separating function:

- walls;
- floors;
- roofs;
- beams;
- columns;
- balconies;
- walkways;
- stairs;

b) loadbearing elements with a fire separating function, with or without glazing, services and fixtures:

- walls;
- floors;
- roofs;
- raised floors;

c) products and systems for protecting elements or parts of the works:

- ceilings with no independent fire resistance;
- fire protective coatings, claddings and screens;

d) non-loadbearing elements or parts of works, with or without glazing, services and fixtures:

- partitions;
- facades (curtain walls) and external walls;
- ceilings with independent fire resistance;
- raised floors;
- fire resisting doorsets, shutter assemblies and openable windows and their closing devices;