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BS EN 13501-5:2016



BSI Standards Publication

Fire classification of construction products and building elements

Part 5: Classification using data from external fire exposure to roofs tests

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This British Standard is the UK implementation of EN 13501-5:2016. It supersedes BS EN 13501-5:2005+A1:2009 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee FSH/22/-/8, Fire resistance tests for external fire exposure for roofs.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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English Version

Fire classification of construction products and building elements - Part 5: Classification using data from external fire exposure to roofs tests

Classement au feu des produits et éléments de construction - Partie 5: Classement utilisant des données d'essais au feu des toitures exposées à un feu extérieur

Klassifizierung von Bauprodukten und Bauarten zu ihrem Brandverhalten - Teil 5: Klassifizierung mit den Ergebnissen aus Prüfungen von Bedachungen bei Beanspruchung durch Feuer von außen

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 COMMITTEE FOR STANDARDIZATION
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European foreword

This document (EN 13501-5:2016) 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 13501-5:2005+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of an identical text or by endorsement, at the latest by December 2016, and conflicting national standards shall be withdrawn at the latest by December 2016.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 European Standard 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 external fire exposure of roofs should make reference to the 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 components of normal 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.

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Introduction

The aim of this European Standard is to define a harmonized procedure for the classification of roofs/roof coverings exposed to external fire. This classification is based on the test methods listed in Clause 5 and the relevant field of application procedures.

This European Standard has been prepared in support of the second essential requirement in the European Commission (EC) Construction Products Regulation (No 305/2011) and as detailed in the Interpretative document number 2: Safety in case of fire (OJ C62 Vol. 37).

The EC has drawn up a list of products which under specified conditions, may be considered to be Class B_{ROOF} without testing. This information is given in the Commission Decision of 2000-09-06 establishing the list of products belonging to Classes B_{ROOF} (Decision 2000/553/EC – 2005/403/EC – 2006/600/EC).

Additionally there is a procedure by which certain products can be assigned a particular fire classification without the need for testing. Such products have well-established reactions to fire performance and have been agreed by the Standing Committee on Construction. Agreements relating to such products which may be 'classified without further testing' (CWFT) are published in the Official Journal of the EU.

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

1 Scope

This European Standard provides the fire performance classification procedures for roofs/roof coverings exposed to external fire based on the four test methods given in CEN/TS 1187:2012 and the relevant extended application rules.

For the classification of a roof/roof covering, only those test methods and those application rules need to be applied for which the corresponding classification is envisaged.

Products are considered in relation to their end use application.

NOTE The distinction between roofs with a steep slope and facades, in terms of the test and classification standard to be applied, may be subject to national regulations.

General information on the four test methods in CEN/TS 1187 is given in Annex A.

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.

CEN/TS 1187:2012, *Test methods for external fire exposure to roofs*

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

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

EN ISO 13943:2010, *Fire safety - Vocabulary (ISO 13943:2008)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 13943:2010 and CEN/TS 1187:2012 and the following apply.

3.1

external fire spread time

T_E

time for external fire spread to the edge of the measuring zone (for test 3)

3.2

time to fire penetration

T_p

time for fire penetration as defined in 3.5

3.3

non-combustible substrate or deck

substrate or deck classified A1 or A2-s1,d0 according to EN 13501-1 (for the purpose of this European Standard only)