

BSI Standards Publication

Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware

Part 3: Fire resistance of hinged and pivoted timber doorsets and openable timber framed windows



BS EN 15269-3:2012 BRITISH STANDARD

National foreword

This British Standard is the UK implementation of EN 15269-3:2012.

The UK participation in its preparation was entrusted by Technical Committee FSH/22, Fire resistance tests, to Subcommittee FSH/22/-/5, Fire resistance tests for doors.

A list of organizations represented on this subcommittee 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

Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware - Part 3: Fire resistance of hinged and pivoted timber doorsets and openable timber framed windows

Application étendue des résultats d'essais de résistance au feu et/ou d'étanchéité à la fumée des blocs-portes, blocs-fermetures et fenêtres, y compris leurs éléments de quincaillerie - Partie 3 : Résistance au feu des blocs-portes battants et pivotants en bois et des fenêtres à ossature bois

Erweiterter Anwendungsbereich von Prüfergebnissen zur Feuerwiderstandsfähigkeit und/oder Rauchdichtigkeit von Türen, Toren und Fenstern einschließlich ihrer Baubeschläge - Teil 3: Feuerwiderstandsfähigkeit von Drehflügeltüren und Fenstern aus Holz

This European Standard was approved by CEN on 16 June 2012.

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

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Foreword

This document (EN 15269-3:2012) 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of an identical text or by endorsement, at the latest by February 2013, and conflicting national standards shall be withdrawn at the latest by February 2013.

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.

This document is one of a series entitled "EN 15269, Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware" which consists of the following parts:

- Part 1: General requirements;
- Part 2: Fire resistance of hinged and pivoted steel doorsets;
- Part 3: Fire resistance of hinged and pivoted timber doorsets and openable timber framed windows;
- Part 4: Fire resistance of hinged and pivoted glass doorsets;
- Part 5: Fire resistance of hinged and pivoted, metal framed, glazed doorsets and openable windows;
- Part 6: Fire resistance of sliding timber doorsets;
- Part 7: Fire resistance of sliding steel doorsets;
- Part 8: Fire resistance of horizontally folding timber doorsets;
- Part 9: Fire resistance of horizontally folding steel doorsets;
- Part 10: Fire resistance of steel rolling shutter assemblies;
- Part 11: Fire resistance of operable fabric curtains;
- Part 20: Smoke control for hinged and pivoted steel, timber and metal framed glazed doorsets.

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.

1 Scope

This European Standard covers hinged or pivoted doorsets with timber based leaves, timber framed glazed doors and openable timber framed windows. It prescribes the methodology for extending the application of test results obtained from fire resistance test(s) conducted in accordance with EN 1634-1. This standard covers doorsets with internal structural elements which are comprised of timber.

Subject to the completion of the appropriate test or tests, the extended application may cover all or some of the following examples:

- integrity (E), integrity/radiation (EW) or integrity/insulation (EI₁ or EI₂) classification;
- glazed elements including vision panels and framed glazed doorsets,
- louvres and/or vents;
- side, transom or overpanels;
- items of building hardware;
- decorative finishes;
- intumescent, smoke, draught or acoustic seals;
- alternative supporting construction(s).

The effect on the Classification 'C' for the doorsets following an extended application process is not addressed in this European Standard.

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 179, Building hardware — Emergency exit devices operated by a lever handle or push pad, for use on escape routes — Requirements and test methods

EN 844 (all parts), Round and sawn timber — Terminology

EN 1125, Building hardware — Panic exit devices operated by a horizontal bar, for use on escape routes — Requirements and test methods

EN 1363-1, Fire resistance tests — Part 1: General requirements

EN 1634-1, Fire resistance and smoke control tests for door, shutter and openable window assemblies and elements of building hardware — Part 1: Fire resistance test for doors, shutters and openable windows

EN 1634-2, Fire resistance and smoke control tests for door, shutter and openable window assemblies and elements of building hardware — Part 2: Fire resistance characterisation test for elements of building hardware

EN 12519, Windows and pedestrian doors — Terminology

EN 13501-2, Fire classification of construction products and building elements — Part 2: Classification using test data from fire resistance tests excluding ventilation services

EN 15254-4 Extended application of results from fire resistance tests — Non-loadbearing walls — Part 4: Glazed constructions

EN 15269-1:2010, Extended application of test results for fire resistance and/or smoke control for door, shutter and openable window assemblies, including their elements of building hardware — Part 1: General Requirements

EN ISO 13943, Fire safety — Vocabulary (ISO 13943)

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 1363-1, EN 12519, EN ISO 13943, EN 1634-1, EN 1634-2 and EN 15269-1 and the following apply.

3.1

core

material fitted centrally within the thickness of a door leaf which may consist of a single sheet of material or a combination either of sheets of the same material or layers of different materials

3.2

effective rebate depth

dimension of the door leaf thickness of overlapping adjacent edges of door leaf relative to the door frame, transom or side panel or flush overpanel

Note 1 to entry: At the meeting edges and for rebated leaves this dimension will be the rebate where the intumescent seal is fitted or, if no seal is fitted, the depth of the largest rebate (see Figure 1).

3.3

leaf symmetry

construction of a door leaf, without consideration of any leaf edge rebates, viewed either side of an imaginary plane drawn centrally in the thickness of the leaf

Note 1 to entry: A symmetrical door leaf will be identical either side of this imaginary plane, whilst an asymmetrical door leaf will differ.

3.4

exposed intumescent seal

intumescent seal which is fitted in the perimeter of the leaf or in the door frame rebate and is visible when the leaf is in the open position

3.5

concealed intumescent seal

intumescent seal which is fitted in the perimeter of the leaf or in the door frame rebate and is not visible when the leaf is in the open position, including seals behind veneers and laminates

3.6

facing (and decorative facing)

outer layer of material on the leaf or panel normally only used for decorative, not for structural, purposes

3.7

subfacing

layer (or layers) of material between the core and the facing in the leaf or panel normally used for structural purposes

4 Determination of the field of extended application

4.1 General

- **4.1.1** Before there can be any consideration for extended application, a representative doorset shall have been tested in accordance with EN 1634-1 to achieve a test result which could generate a classification in accordance with EN 13501-2 at least equal to the classification subsequently required from extended application considerations.
- **4.1.2** A review of the doorset construction parameters can indicate that one or more characteristics may be improved by a particular parameter variation. All evaluations shall be made on the basis of retaining the classifications obtainable from testing to EN 1634-1, including those lower than the test duration. However, this shall never lead to an increased classification for any specific parameter beyond that achieved during any one test, unless specifically identified in the relevant Construction Parameter Variation tables.
- **4.1.3** If, when following the extended application procedure, any part of the classified product cannot be covered by the extended application rules then that part shall be omitted from the subsequent extended application report and classification report.

4.2 How to use the extended application rules in Annex A

- **4.2.1** Identify the variations from the original test specimen(s) which are required to be covered by an extended application report.
- **4.2.2** Locate the variations in the appropriate parameter variation by reference to columns (1) and (2) of Annex A.
- **4.2.3** Review the type of classification to be retained from column (3) of Annex A and establish from the contents of column (4) of Annex A whether any extended application is available beyond the direct application rules in EN 1634-1 without the need for further testing.
- **4.2.4** Where this is deemed to be possible, it can be recorded in the extended application report together with any appropriate restrictions and the stated rules from column (4) of Annex A.
- **4.2.5** Where the variations required can only be achieved from additional testing, the additional test can be made on a similar specimen type i.e. a doorset of the same or more onerous configuration where the leaf construction is fundamentally the same as that tested. Alternatively, column (5) of Annex A identifies an option for alternative testing and relevant test parameters.

4.3 Procedure for maximum field of extended application

- **4.3.1** It is possible to provide an extended field of application from a single test. However, where a manufacturer envisages to manufacture a range of doors incorporating single doors and also double doors with or without side, transom or over panels, with or without glazing, louvres or ventilation grilles, with alternative element of building hardware, etc., it is recommended that careful consideration is given to the complete range of doorset designs and options. This helps to minimise the testing required before testing commences.
- **4.3.2** Establish all the parameter variations which are required to be part of the product range.
- **4.3.3** Determine which are the most important specification requirements and incorporate as many as possible into the specimen(s) for the first tests in the series.
- **4.3.4** Conduct the first fire resistance test or a series of tests and then establish which of the original desired parameter variations have not been covered by the fire resistance tests, including direct application possibilities.