

Guidance Notes on the CE Marking of Fire Doorsets

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PLEASE NOTE THAT SOME OF THE INFORMATION CONTAINED IN THIS GUIDENCE PAPER (including Appendix D) IS ONLY REVELANT TO TIMBER DOORSETS AND DOES NOT APPLY TO DOORSETS MANUFACTURED FROM OTHER MATERIALS

Foreword

The following guidance has been prepared by Kevin Underwood, Technical Director at the British Woodworking Federation and is based on the discussions held in open forum during meetings of the UK Fire Door and Doorset Industry Group, a voluntary group made up of a cross section of operators from the industry, including manufacturers, trade associations, certification bodies, testing laboratories and consultants that discussed aspects of CE marking fire doorsets in open forum with the aim of preparing

The guidance is given in support of the CE marking of fire doorsets in compliance with the CPR, the stated aim of which is to facilitate the formation and operation of the European Community single market by removing basic technical barriers to trade through common product, test and classification standards and a common technical language.

Key facts

- It will be possible to CE mark fire doorsets to the new EN16034 standard from some time in 2015. The exact start date is still unknown.
- A coexistence period will exist where fire doorsets can be CE Marked or continue to be rated to existing British or European Standards.
- At some time in the future, after the coexistence period, all fire doorsets will have to be CE marked.
- The standard only applies to doorsets.
- Door leaves sold alone cannot, and do not have to, be CE marked.
- A door assembly is defined as a door leaf, door frame, and associated ironmongery bought as separate items for final assembly on the job site.
- Door assemblies cannot, and do not have to, be CE marked.

Detailed information

CE marking of fire rated doorsets

The harmonised European Standard **BS EN 16034** has been published by BSI and shows the process for determining performance against the essential characteristics for a **doorset** (see scope below). Once this standard has been published in the Official Journal of the European Union (**OJEU**), the CE marking of **doorsets** can begin, giving performance ratings against the following essential characteristics:-

- Resistance to fire
- Smoke control
- Self-closing (the ability for a door leaf to fully close from any angle)
- Ability to release (an assessment of hold-open devices)
- The durability of ability to release
- The durability of self-closing

At present, it is uncertain when this publication will take place, however, publication in the **OJEU** will also confirm the coexistence period which is the time for which CE marking will be optional and during which the performance of fire rated **doorsets** can be given by a process other than through CE marking rules. e.g. testing to **BS 476-22**

Other characteristics for fire-rated **doorsets**, such as acoustic performance or thermal performance, will need to be determined by reference to **BS EN 14351-1** for external **doorsets** or **pr EN 14351-2** for internal **doorsets**.

Requirements for fire doors given in the building regulation guidance for England, Scotland, Wales and Northern Ireland

- The guidance documents listed in appendix F describe the performance of fire doors in terms of integrity and smoke control. For these characteristics, the performance of **door assemblies** or **doorsets** can be determined by either British or European standards.

For integrity (and insulation), **door assemblies** or **doorsets** can be tested to either **BS 476-22** or **BS EN 1634-1**,

For smoke control, **door assemblies** or **doorsets** can be tested to either **BS 476-31.1** or **BS EN 1634-3**.

- Other characteristics covered by **BS EN 16034** and required by building regulations include the ability to close from any angle under the action of a self-closing device, and the ability to close when released by a hold-open device.
- While CE marking of fire-rated **doorsets** can begin once **BS EN 16034** is published in the **OJEU**, up until the end of the coexistence period, (the point at which CE marking becomes mandatory), fire-rated **doorsets** can continue to be rated by testing to British

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Standards or European Standards and be covered by test and assessment documentation in the current manner without the need for CE marking.

- Fire-rated fire **door assemblies** and **door leaves** fall outside the scope of **BS EN 16034** which states that, “**door assemblies** produced with components from several sources where there is no single identified manufacturer or legal entity who will take responsibility for them.” Therefore, these products cannot be CE marked and can continue to be rated by testing to British Standards or European Standards and be covered by test and assessment documentation in the current manner, even after the end of the coexistence period.
- **BS EN 16034** does not apply to fire rated **doorsets** that are not self-closing, and are not kept locked shut – e.g. internal fire doors in domestic dwellings.
- Once **BS EN 16034** has been published in the **OJEU** and a manufacturer wishes to make a declaration of performance and apply the CE marking then they must do so in accordance with the Construction Product Regulation and Annex ZA of **BS EN 16034**.

Requirements for Manufacturers, importers and distributors given in the construction products regulation

From EU Regulation 305/2011 the Construction Products Regulation:

Declaration of performance

From the date of publication of a reference to the harmonised European Standard **BS EN 16034**, in the **OJEU**, the manufacturer of a **doorset** which falls within the scope of **BS EN 16034** can draw up a declaration of performance when such a **doorset** is **placed on the market**.

Up to the end of the coexistence period, which will be notified at the time of publication in the **OJEU**, the drawing up of a declaration of performance is optional. However, once the coexistence period has passed, manufacturers will be obliged to draw up a declaration of performance (DoP) for such **doorsets**.

The performance of a doorset in relation to the essential characteristics must be determined by a **notified test laboratory**

By drawing up the declaration of performance, the manufacturer shall assume responsibility for the conformity of the **doorset** with such declared performance.

Assessment and verification of constancy of performance (AVCP)

To ensure consistency in the performance of doorsets against the declared performance manufacturers should work with a **notified product certification body** following the responsibilities required for AVCP system 1.

- (a) The **manufacturer** shall be responsible for carrying out:

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(i) factory production control;

(ii) further testing of samples taken at the manufacturing plant by the manufacturer in accordance with the prescribed test plan.

(b) The **notified product certification body** shall be responsible for issuing, restricting, suspending or withdrawing the certificate of constancy of performance of the construction product on the basis of the outcome of the following assessments and verifications carried out by that body:

(i) an assessment of the performance of the construction product carried out on the basis of testing (including sampling), calculation, tabulated values or descriptive documentation of the product;

(ii) initial inspection of the manufacturing plant and of factory production control;

(iii) continuing surveillance, assessment and evaluation of factory production control.

CE marking

The CE marking shall be affixed to those construction products for which the manufacturer has drawn up a declaration of performance.

By affixing or having affixed the CE marking, manufacturers indicate that they take responsibility for the conformity of the **doorset** with the declared performance as well as the compliance with all applicable requirements of the Construction Products Regulation and in other harmonised European Standards that may apply.

Other responsibilities of manufacturers

Manufacturers shall, as the basis for the declaration of performance, draw up technical documentation describing all the relevant elements related to the required system of assessment and verification of constancy of performance (AVCP)

Manufacturers shall keep the technical documentation and the declaration of performance for a period of 10 years after the construction product has been placed on the market.

Manufacturers shall ensure that their construction products bear a type, batch or serial number or any other element allowing their identification.

Manufacturers shall indicate on the construction product or, where that is not possible, on its packaging or in a document accompanying it, their name, registered trade name or registered trade mark and their contact address. The address shall indicate a single point at which the manufacturer can be contacted.

Manufacturers shall ensure that the product is accompanied by instructions and safety information.

Obligations of importers

Before placing a **doorset** on the market, importers shall ensure that the assessment and the verification of constancy of performance has been carried out by the manufacturer. They

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shall ensure that the manufacturer has drawn up the technical documentation and the declaration of performance. They shall also ensure that the product, where required, bears the CE marking and that the product is accompanied by the required documents.

Obligations of distributors

Before making a construction product available on the market, distributors shall ensure that the product, where required, bears the CE marking and is accompanied by the required documents and by instructions and safety information. Distributors shall also ensure that the manufacturer and the importer have complied with their responsibilities.

Changes Record -

Date	Issue Level	Note
23/12/14	Draft A	First issue of draft
16/03/15	Draft B	Second issue of draft incorporating group comments. See consolidated comments document 16/03/15
20/04/15	Draft C	Third issue of draft incorporating comments from MW See consolidated comments document 20/04/15
21/04/15	Final	Final version incorporating changes to Appendix D detail from EN 15269-3 removed.

Appendix A - Definitions

doorset – frame, finished door leaf or leaves, glazed where required, and their necessary hardware - including where appropriate any threshold strip; transom or side panels - fully machined needing no further site work other than possible re-assembly of factory-prepared component parts, and all placed on the market by one legal entity, for fixing in position in an opening in a wall

door assembly – frame, door leaf or leaves and their necessary hardware - including where appropriate any threshold strip; transom or side panels - supplied as individual component parts, usually un-machined, and placed on the market by more than one legal entity, for incorporating into an opening in a wall.

Door assemblies conform to a tested or assessed specification provided by a door manufacturer and frequently supplied under an independent third party voluntary certification scheme

N.B. if these individual component parts are supplied by a merchant in a single transaction it is still a door assembly, as long as further work is required, e.g. mortising

door kit – doorset supplied as component parts for re-assembly on site

door leaf – opening part of a doorset, door kit or door assembly.

essential characteristics - those characteristics of a doorset product which relate to the basic requirements for construction works

making available on the market - any supply of a construction product for distribution or use on the Union market in the course of a commercial activity, whether in return for payment or free of charge

placing on the market - the first making available of a construction product on the Union market

OJEU – Official Journal of the European Union

Notified product certification body – an independent organisation notified to undertake certification tasks for **BS EN 16034** under **AVCP** System 1

Notified test laboratory – an independent organisation notified to undertake testing in accordance with **BS EN 16034** and for the preparation of extended application reports in accordance with **BS EN 15725**

AVCP – Assessment and Verification of Constancy of Performance.

Appendix B - The scope of the harmonised standard BS EN 16034

Only fire rated doorsets that fall within the scope of **BS EN 16034** may be CE marked.

BS EN 16034 identifies *material independent, safety and performance requirements applicable to all fire resisting and/or smoke control doorsets intended to be used in fire and/or smoke compartmentation and/or escape routes, which are manually or power operated and:*

- *opening and self closing as a normal mode of operation, or*
- *normally held open but self closing in case of fire or smoke, or*
- *normally maintained locked in the closed position (e. g. service access/inspection doorsets),*

and completed:

- *with building hardware,*
- *with or without any side panel(s), flush over panel(s) and/or transom panel(s) (with or without glazing)*

and contained within a single perimeter frame for inclusion in a single aperture,

- *with or without any vision panel(s) in the door leaf or leave(s),*
- *with or without any seals (e.g. for smoke control, fire resistance, draught, acoustic or weather characteristics).*

BS EN 16034 does not cover:

- *fixed windows, glazed side panels and/or overpanels, which are not an integral part of a doorset and/or openable window;*
- *door assemblies produced with components from several sources where there is no single identified manufacturer or legal entity who will take responsibility for them;*

It is important to note that where fire rated doorsets are not fitted with a self-closing device and are not kept locked shut, they fall outside the scope of **BS EN 16034** and cannot be CE marked. This includes the majority of fire rated doorsets fitted into dwellings in England where self-closing is not required other than on a doorset fitted between a dwelling and an integral garage, and the entrance door to a flat.

Appendix C – Regulations and standards referred to in this guide

Regulations

REGULATION (EU) No 305/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2011 laying down harmonised conditions for the marketing of construction products and repealing Council Directive 89/106/EEC

COMMISSION DELEGATED **REGULATION (EU) No 157/2014** of 30 October 2013 on the conditions for making a declaration of performance on construction products available on a website

COMMISSION DELEGATED **REGULATION (EU) No 568/2014** of 18 February 2014 amending Annex V to Regulation (EU) No 305/2011 of the European Parliament and of the Council as regards the assessment and verification of constancy of performance of construction products

COMMISSION DELEGATED **REGULATION (EU) No 574/2014** of 21 February 2014 amending Annex III to Regulation (EU) No 305/2011 of the European Parliament and of the Council on the model to be used for drawing up a declaration of performance on construction products

These regulations can be accessed through the European Commission Website for Internal market, Industry, Entrepreneurship and SMEs

http://ec.europa.eu/growth/sectors/construction/product-regulation/index_en.htm

Standards

BS 476-22:1987, Fire tests on building materials and structures. Method for determination of the fire resistance of non-loadbearing elements of construction

BS 476-31.1:1983, Fire tests on building materials and structures. Methods for measuring smoke penetration through doorsets and shutter assemblies. Method of measurement under ambient temperature conditions.

EN 1634-1:2014, Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware — Part 1: Fire resistance test for door and shutter assemblies and openable windows

EN 1634-3:2004, Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware — Part 3: Smoke control test for door and shutter assemblies

BS EN 13501-2:2007+A1:2009, Fire classification of construction products and building elements. Classification using data from fire resistance tests, excluding ventilation services

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BS EN 14351-1:2006+A1:2010, Windows and doors. Product standard, performance characteristics. Windows and external pedestrian doorsets without resistance to fire and/or smoke leakage characteristics.

pr EN 14351-2. Windows and doors. Product standard, performance characteristics. Part 2. Internal pedestrian doorsets without resistance to fire and /or smoke leakage characteristics.

BS EN 15269-3:2012, 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. Fire resistance of hinged and pivoted timber doorsets and openable timber framed windows

BS EN 15725:2010, Extended application reports on the fire performance of construction products and building elements.

BS EN 16034:2014, Pedestrian doorsets, industrial, commercial, garage doors and openable windows. Product standard, performance characteristics. Fire resisting and/or smoke control characteristics

Appendix D - Elements of hardware that can be included in a BS EN 15269-3 extended application report without the need for further testing.

Hardware that is to be incorporated in a doorset claiming performance for fire resistance according to **BS EN 13501-2** must be referred to in a direct application report in accordance with **BS EN 1634-1** or an extended application report in accordance with **BS EN 15725**.

General requirements for hardware used on products claiming a resistance to fire classification

Building hardware shall be suitable for use on fire doorsets and the suitability shall be demonstrated as specified in the component product standard. For the purpose of **BS EN 16034**, when the suitability for use on fire doorsets is demonstrated by a successful full size fire test to **BS EN 1634-1** or a small scale fire test to **BS EN 1634-2**, the test specimen shall be representative of the intended doorsets' construction and for the required classification period.

The clauses below from **BS EN 15269-3** are those where changes made to a doorset may **not** require additional testing. **However**, consideration may need to be given to the amount of material that needs to be removed from the door leaf or frame in order to accommodate the hardware, as well as the requirements for intumescent protection, the relative size of the alternative fitting and the properties of the material from which the hardware elements are manufactured.

- C.1.1 Alternative latches/locks and strike plates.
- C.1.9 A change in the type and/or material of strike plates.
- C.1.12 The addition of door bolts (flush, internal and surface mounted).
- C.1.19 The addition of panic devices (to EN 1125).
- C.1.29 A change in the manufacturer of hinges/dog bolts of the same type.
- C.1.30 A change in the material of hinges/dog bolts of the same type.
- C.1.32 Change from single axis spring hinge to single axis hinge.
- C.1.33 Change from a single axis hinge to a single axis spring hinge.
- C.1.34 Addition or exchange of single axis spring hinge of identical design from an alternative manufacturer.
- C.1.44 A change in the manufacturer of a door closer of the same type.
- C.1.48 The addition of a door viewer.
- C.1.63 A change in the manufacturer of a door co-ordinator.
- C.1.64 A change in the manufacturer of the profile cylinder of an internal lock.
- C.1.65 A change in the cylinder configurations, e.g. change keyed to thumb-turn or change double cylinder to single cylinder.

Please note that any of the changes above may only be made to a doorset if the change has been agreed with the **notified testing laboratory**.

Appendix E : Frequently Asked Questions

1 - What is a fire doorset?

A fire door frame, fire door leaf or leaves, glazed where required, their essential hardware, intumescent, - and where appropriate any threshold strip; transom or side panels – fully machined needing no further site work other than possible re-assembly of factory-prepared component parts, all supplied from one legal entity, for fixing in position in an opening in a wall.

2 - What hardware must be fitted to make it a fire doorset?

Hinges, latches (if the door is going to be latched and a closer is fitted), locks (if the doors is going to be used locked without a closer), closer (if the door is not going to be locked).

3 – If a door handle is needed must it be supplied?

Handles are optional - the fire doorset must be CE marked even if handles are not fitted.

4 - If a door closer is needed on the doorset, must it be supplied?

If a closer is needed, and the fire doorset is supplied without one, the doorset cannot be CE marked.

5 - If a merchant sells a door frame, door leaf, and all the hardware to someone, is this classed as a doorset, and does it have to be CE marked?

This is not defined as a fire doorset and cannot be CE marked.

6 - If a jobbing builder buys a door frame, door leaf and hardware from a merchant, or several merchants, fits the hardware on site, and makes one charge for supplying and fitting these parts to a building, is this classed as a doorset that needs to be CE marked?

No - This is not a fire doorset, and cannot be CE marked

7 - If a homeowner buys a door frame, door leaf, hardware from a single source and pays a builder to machine and fit the components together and then install them in a property, is this classed as a doorset that has to be CE marked?

No - There are two separate transactions, and this is not classed as a fire doorset and so cannot be CE marked.

8 - If a builder buys a door frame, door leaf and hardware from a merchant, or several merchants, fits the hardware on site and installs them in a property he is building to sell, or rent, does he have to CE mark them as a doorset?

No - The builder is not placing a fire doorset on the market, and so the door assemblies he creates cannot be CE marked.

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9 - If a builder buys a door frame, door leaf and essential hardware from a merchant, or several merchants, fits the essential hardware on site and installs them as part of a series of works he is doing for someone, does he have to CE mark the fire doorset?

No - See also answer to question 8.

10 - If the doorset is an external doorset CE marked to EN 14351 -1 can it also be CE marked to EN 16034?

Not at the moment, as a reference to EN 16034 has not been published in the OJEU. This will be possible from some point in 2015.

11 - What are the minimum essential requirements that need to be declared on the DOP?

All essential characteristics on the DoP should be listed with, as a minimum, a value declared for those that are regulated.

12 - If a builder buys a CE marked fire doorset, CE marked for Dangerous substances and Resistance to fire only, installs them in a property he is building, adds a hold open device and/or closer, does he have to take responsibility for CE marking and making additional declarations for self closing and ability to release?

No. If the doorset has not been fitted with a closer then it falls outside the scope of EN 16034 and so cannot be CE marked. If the builder fits a hold open device to a CE marked doorset, that has been fitted with a closer, they do not need to extend the declaration of performance as the resulting assembly would not have been placed on the market by a single legal entity.

13 - Can a builder buy an incomplete non-CE marked fire doorset, buy a closer and/or hinges from another source and install it in a property he is building, without having to CE mark the finished doorset?

An "incomplete" doorset cannot be CE marked. By bringing components together, from different sources, and installing them, the builder is creating a fire door assembly which also cannot be CE marked. See also question 8.

14 - If the building regulations do not require a closer (e.g. English new build onto a stairwell) can the builder buy and install a non CE marked fire doorset?

Yes, unlocked doorsets without closers are outside the scope of EN 16034.

15 - Is a doorkit a doorset that must be CE marked?

Yes - Unless the doorkit is going to be used latched & without a closer, in which case it cannot be CE Marked – see 14 above.

16 - What AVCP (Attestation and Verification of Constancy of Performance) system applies to a doorset?

System 1 applies

17 - Does the fire doorset have to have a CE mark on it?

Yes. The product must be marked or a label attached to it.

18 - Does the CE mark have to be visible after the fire doorset is installed?

No.

19 - Can changes be made to a CE marked fire rated doorset once it has been received on site?

No. Changes made to the doorset or door kit could affect the performance of the product as declared on the DoP

20 - Can other suppliers' fire test evidence be used in support of CE marking?

Yes, this is permitted by article 36 of the CPR and is covered in EN 16034 clause 6.2.4 "Cascading ITT and factory production control (FPC)". However, this is only possible with the agreement and knowledge of the owner of the fire test evidence

Appendix F. Guidance relating to compliance with the building regulations for England, Scotland, Wales and Northern Ireland.

England

Approved document B, Fire Safety, Volume 1, **Dwellinghouses**, 2006 edition incorporating 2010 and 2013 amendments : Appendix B, Fire doors

http://www.planningportal.gov.uk/uploads/br/BR_PDF_AD_B1_2013.pdf

Approved document B. Fire Safety, Volume 2, **Buildings other than dwellinghouses**, 2006 edition incorporating 2010 and 2013 amendments. : Appendix B, Fire doors

http://www.planningportal.gov.uk/uploads/br/BR_PDF_AD_B2_2013.pdf

Scotland

Technical Handbook, 2013, **Domestic**, Section 2, Fire : Annex 2A, resistance to fire

<http://www.gov.scot/Resource/0045/00459725.pdf>

Technical Handbook, 2013, **Non-domestic**, Section 2, Fire : Annex 2D, resistance to fire

<http://www.gov.scot/Resource/0045/00459738.pdf>

Wales

Approved Document B, Fire Safety, Volume 1, **Dwellinghouses**, 2006 edition incorporating 2010 amendments : Appendix B, Fire doors

<http://gov.wales/docs/desh/publications/130205building-regs-approved-document-b1-fire-en.pdf>

Approved Document B, Fire Safety, Volume 2, **Buildings other than dwellinghouses**, 2006 edition incorporating 2010 and 2013 amendments : Appendix B, Fire doors

<http://gov.wales/docs/desh/publications/141104building-regs-approved-document-b2-fire-en.pdf>

Northern Ireland

Technical Booklet E, Fire Safety : Fire doors, clauses 4.29 to 4.35

http://www.dfpni.gov.uk/tbe_online_version.pdf
