HM Government

The Building Regulations 2010

Amendments to the Approved Documents

This document contains amendments to the following Approved Document:

Approved Document B: Fire safety
Volume 1 – Dwellings
Volume 2 – Buildings other than dwellings
2019 edition incorporating the 2020, 2022, 2025 and 2026 amendments

Published September 2024
Taking effect on 2 September 2029

For use in England

ONLINE VERSION

Introduction

This document sets out amendments to guidance previously published in Approved Document B: Fire safety, Volume 1 – Dwellings and Volume 2 – Buildings other than dwellings, 2019 edition incorporating the 2020, 2022, 2025 and 2026 amendments.

These amendments will be incorporated into both the online and paper versions of Approved Document B Volume 1 and Volume 2 when the changes take effect. Versions from before that date will need to be read alongside the amendments listed in this document. You should always check the online version to know that you are looking at the most up to date version.

The changes highlighted in this amendment booklet take effect on 2 September 2029 for use in England. The 2019 edition incorporating the 2020, 2022, 2025 and 2026 amendments will continue to apply where a building notice or an initial notice has been given to, or a building control approval application with full plans made to, the relevant authority before 2 September 2029 and either the building work to which it relates:

a. has started and is sufficiently progressed before that day; or

b. is started and is sufficiently progressed within the period of six months beginning on that day.

Please note that 'building notice', 'initial notice' and 'building control approval application with full plans' have the meanings given in the Building Regulations 2010. For the purpose of these transitional arrangements, building work is to be regarded as 'sufficiently progressed':

a. where the building work consists of the construction of a building, when the pouring of concrete for the permanent placement of the trench, pad or raft foundations has started, or the permanent placement of piling has started; or

b. where the building work consists of work to an existing building, when that work has started; or

c. where the building work consists of a material change of use of a building, when work to effect that change of use has stated.

The changes focus on the fire safety provisions regarding the removal of national classes for fire resistance.

Full details of the changes are provided below.

The Building Regulations 2010

Approved Document B: Fire safety Volume 1 – Dwellings

2019 edition incorporating the 2020, 2022, 2025 and 2026 amendments

List of amendments

Taking effect on 2 September 2029

Appendix B: Performance of materials, products and structures

Pages 121 to 135 **Replace** the whole of **Appendix B: Performance of materials, products and structures** with the following.

Introduction

B1 The guidance in this document is given in terms of performance classifications in relation to European Standards. In such cases, it will be necessary to demonstrate that a system or product can meet the relevant performance classification. This will be achieved if the system or product complies with one of the following.

a. They should be in accordance with a specification or design that has been shown by specific test(s) to be capable of meeting that performance classification.

b. They should have been designed by using relevant design standards in order to meet that performance classification.

c. They should have been assessed by applying relevant test evidence, in lieu of carrying out a specific test, as being capable of meeting that performance classification.

NOTE: Some products are subject to Classification Without Further Testing (CWFT). For the purposes of this approved document, such products can be considered to have been shown to be capable of meeting a performance specification as per paragraph B1a.

B2 Any test evidence used to demonstrate the fire performance classification of a product or system should be carefully checked to ensure that it is applicable to the intended use. Small differences in detail, such as fixing method, joints, dimensions, the introduction of insulation materials and air gaps (ventilated or not), might significantly affect the performance and should be tested or assessed in accordance with paragraph B1.

B3 Assessments should not be regarded as a way to avoid a test where one is necessary. Assessments should only be carried out where sufficient relevant test evidence is available. Relevant test evidence is unlikely to be provided by test standards which have different classification criteria.

B4 Where it is proposed to assess the classification of a product or system in lieu of carrying out a specific test (as in paragraph B1c), this should be done in accordance with the relevant standard for extended application for the test in question and should include details of the test evidence that has been used to support the assessment.

For performance classifications where there is no specific standard for extended application, assessment reports should be produced in accordance with the principles of **BS EN 15725** and should include details of the test evidence that has been used to support the assessment. In cases where the end use application is not covered by the extended application standard and an assessment is the only other suitable approach, then further information on best practice is provided in the Passive Fire Protection Forum's *Guide to Undertaking Technical Assessments of the Fire Performance of Construction Products Based on Fire Test Evidence.* The same principle should be followed for assessments as described in paragraph B2.

NOTE: Regulation 7(2) limits components used in or on the external walls of certain buildings to materials achieving class A2-s1, d0 or class A1 (see Section 10). Assessments cannot be used to demonstrate compliance with this requirement.

B5 Tests and assessments should be carried out by organisations with the necessary expertise. For example, organisations listed as 'notified bodies' in accordance with the European Construction Products Regulation or laboratories accredited by the United Kingdom Accreditation Service (UKAS) for the relevant test standard can be assumed to have the necessary expertise.

NOTE: Standard fire tests do not directly measure fire hazard. They measure or assess the response of a material or system to exposure to one or more aspects of fire conditions. Performance in fire tests is only one of a number of factors that should be taken into account.

Reaction to fire

B6 Reaction to fire relates to the degree to which a product will contribute, by its own decomposition, to a fire under specified conditions. Products, other than floorings, are classified as A1, A2, B, C, D, E or F (with class A1 being the highest performance and F being the lowest) in accordance with **BS EN 13501-1**. Class F is assigned when a product fails to attain class E. Untested products cannot be classified in accordance with **BS EN 13501-1**.

Materials covered by the Classification Without Further Testing (CWFT) process can be found by accessing the European Commission's website https://eur-lex.europa.eu/.

B7 The classes of reaction to fire performance of A2, B, C, D and E are accompanied by additional classifications related to the production of smoke (s1, s2, s3), with s1 indicating the lowest production, and/or flaming droplets/particles (d0, d1, d2), with d0 indicating the lowest production.

NOTE: When a classification includes s3, d2 this means that there is no limit set for smoke production and/or flaming droplets/particles.

B8 To reduce the testing burden on manufacturers, **BS EN 13238** defines a number of standard substrates that produce test results representative of different end use applications. The classification for reaction to fire achieved during testing is only valid when the product is used within this direct field of application, i.e. when the product is fixed to a substrate of that class in its end use. The standard substrate selected for testing should take account of the intended end use applications (field of application) of the product and represent end use substrates that have a density of a minimum of 75% of the standard substrate's nominal density.

B9 Standard substrates include gypsum plasterboard (**BS EN 520**) with a density of 700+/-100kg/m^3, calcium silicate board (**BS EN 14306**) 870+/-50kg/m^3 and fibre-cement board 1800+/-200kg/m^3.

NOTE: Standard calcium silicate board is not representative of gypsum plasterboard end use (due to the paper layer), but would be representative of most gypsum plasters (with densities of more than 650kg/m^3).

NOTE: Classifications based on tests using a plasterboard substrate would also be acceptable for products bonded to a gypsum plaster end use substrate.

Thermoplastic materials

B10 Thermoplastic material is any synthetic polymeric material that has a softening point below 200°C if tested to **BS EN ISO 306** Method A120. Products formed from these materials cannot always be classified in the normal way. In those circumstances the following approach can be followed.

B11 Thermoplastic materials used for window glazing, rooflights and lighting diffusers within suspended ceilings do not need to meet the criteria within paragraph B18 onwards, if the guidance to requirements B2 and B4 is followed.

B12 For the purposes of requirements B2 and B4, thermoplastic materials should be classified as TP(a) rigid, TP(a) flexible or TP(b), as follows:

a. **TP(a) rigid**

i. rigid solid uPVC sheet

ii. solid (as distinct from double- or multi-skinned) polycarbonate sheet a minimum of 3mm thick

iii. any other rigid thermoplastic product, a specimen of which (at the thickness of the product as put on the market), when tested to **BS 2782-0** Method 508A, performs so that both:

- the test flame extinguishes before the first mark
- the duration of flaming or afterglow does not exceed 5 seconds following removal of the burner.

b. **TP(a) flexible**

Flexible products a maximum of 1mm thick that comply with the Type C requirements of **BS 5867-2** when tested to **BS 5438** Test 2 with the flame applied to the surface of the specimens for 5, 15, 20 and 30 seconds respectively, but excluding the cleansing procedure; and

c. **TP(b)**

i. rigid solid polycarbonate sheet products a maximum of 3mm thick, or multi-skinned polycarbonate sheet products that do not qualify as TP(a) by test

ii. other products which, when a specimen of the material between 1.5 and 3mm thick is tested in accordance with **BS 2782-0** Method 508A, have a maximum rate of burning of 50mm/minute.

NOTE: If it is not possible to cut or machine a 3mm thick specimen from the product, then a 3mm test specimen can be moulded from the same material as that used to manufacture the product.

B13 A thermoplastic material alone when used as a lining to a wall or ceiling cannot be assumed to protect a substrate. The surface rating of both thermoplastic material and substrate must therefore meet the required classification.

If, however, the thermoplastic material is fully bonded to a non-thermoplastic substrate, then only the surface rating of the composite needs to meet the required classification.

Roofs

B14 Performance of the resistance of roofs to external fire exposure is measured in terms of penetration through the roof construction and the spread of flame over its surface.

B15 Roof constructions are classified within the European system as $B_{ROOF}(t4)$, $C_{ROOF}(t4)$, $D_{ROOF}(t4)$, $E_{ROOF}(t4)$ or $F_{ROOF}(t4)$ in accordance with **BS EN 13501-5**. $B_{ROOF}(t4)$ indicates the highest performance and $F_{ROOF}(t4)$ the lowest.

B16 **BS EN 13501-5** refers to four separate roof tests. The suffix (t4) used in paragraph B15 indicates that Test 4 is to be used for the purposes of this approved document.

B17 This document uses the European classification system for roof covering set out in **BS EN 13501-5**; however, there may be some products or systems whose performance will need to be assessed based on the recommendations of paragraphs B1 to B5 as being capable of meeting that performance classification.

Fire resistance

B18 Common to all of the provisions of Part B of the Building Regulations is the property of fire resistance. Fire resistance is a measure of one or more of the following criteria.

a. **Resistance to collapse** (loadbearing capacity), which applies to loadbearing elements only, denoted R in the European classification of the resistance to fire performance.

b. **Resistance to fire penetration** (integrity), denoted E in the European classification of the resistance to fire performance.

c. **Resistance to the transfer of excessive heat** (insulation), denoted I in the European classification of the resistance to fire performance.

B19 The standards of fire resistance necessary for a particular building are based on assumptions about the severity of fires and the consequences should an element fail. Fire severity is estimated in very broad terms from the use of the building (its purpose group), on the assumption that the building contents (which constitute the fire load) are similar for buildings with the same use.

B20 Because the use of buildings may change, a precise estimate of fire severity based on the fire load due to a particular use may be misleading. Therefore if a fire engineering approach of this kind is adopted, the likelihood that the fire load may change in the future needs to be considered.

B21 Performance in terms of the fire resistance to be achieved by elements of structure, doors and other forms of construction is classified in accordance with one of the following.

a. **BS EN 13501-2**.

b. **BS EN 13501-3**.

c. **BS EN 13501-4**.

B22 Fire resistance is measured in minutes. This relates to time elapsed in a standard test and should not be confused with real time.

B23 The fire resistance necessary for different circumstances is set out in the following tables.

a. Table B1 gives the specific requirements for each element of structure.

b. Table B2 sets out the minimum periods of fire resistance for elements of structure.

c. Table B3 sets out limitations on the use of uninsulated fire resisting glazed elements.

B24 This document uses the European classification system (REI) for fire resistance set out in **BS EN 13501-2** to **4**. Fire resistance is expressed as REI X, where X is the period of fire resistance in minutes in terms of loadbearing capacity (R), integrity (E) and insulation (I). Products or systems cannot typically assume a European class unless they have been tested and classified accordingly.

B25 Products or systems achieving the European classification (REI) should be specified wherever possible. However, there may be some products or systems that have been assessed as being capable of meeting a fire resistance performance classification. When assessed, products or systems should follow the relevant test standards to indicate their fire resistance performance in terms of loadbearing capacity, integrity and insulation based on the recommendations of paragraphs B1 to B5. In those situations, the performance classifications given in Table B1 and Table B2 may be used.

Table B1 Specific provisions of the test for fire resistance of elements of structure, etc.

Part of building	Minimum provisions when tested and classified to the relevant European standard (minutes)[1] or assessed following the recommendations of paragraphs B1 to B5 (minutes)[2]			Type of exposure
	Loadbearing capacity[3]	Integrity	Insulation	
1. **Structural** frame, beam or column.	See Table B2	Not applicable	Not applicable	Exposed faces
2. **Loadbearing wall** (for a wall which is also described in any of the following items, the more onerous guidance should be applied).	See Table B2	Not applicable	Not applicable	Each side separately
3. **Floors**[4]				
a. between a shop and flat above	60 min or see Table B2 (whichever is greater)	60 min or see Table B2 (whichever is greater)	60 min or see Table B2 (whichever is greater)	From underside[5]
b. in upper storey of two storey dwellinghouse (but not over garage or basement)	30 min	15 min	15 min	From underside[5]
c. any other floor – including compartment floors.	See Table B2	See Table B2	See Table B2	From underside[5]
4. **Roofs**				
a. any part forming an escape route	30 min	30 min	30 min	From underside[5]
b. any roof that performs the function of a floor.	See Table B2	See Table B2	See Table B2	From underside[5]
5. **External walls**				
a. any part a maximum of 1000mm from any point on the relevant boundary[6]	See Table B2	See Table B2	See Table B2	Each side separately
b. any part a minimum of 1000mm from the relevant boundary[6]	See Table B2	See Table B2	15 min	From inside the building
c. any part beside an external escape route (Section 2, Diagram 2.7 and Section 3, Diagram 3.11).	30 min	30 min	No provision[7][8]	From inside the building
6. **Compartment walls** Separating either:				
a. a flat from any other part of the building (see paragraph 7.1)	60 min or see Table B2 (whichever is less)	60 min or see Table B2 (whichever is less)	60 min or see Table B2 (whichever is less)	Each side separately
b. occupancies.	60 min or see Table B2 (whichever is less)	60 min or see Table B2 (whichever is less)	60 min or see Table B2 (whichever is less)	Each side separately

Table B1 Continued

Part of building	Minimum provisions when tested and classified to the relevant European standard (minutes)[1] or assessed following the recommendations of paragraphs B1 to B5 (minutes)[2]			Type of exposure
	Loadbearing capacity[3]	Integrity	Insulation	
7. **Compartment walls** (other than in item 6 or item 10).	See Table B2	See Table B2	See Table B2	Each side separately
8. **Protected shafts**				
Excluding any firefighting shaft:				
a. any glazing described in Section 7, Diagram 7.2	Not applicable	30 min	No provision[8]	Each side separately
b. any other part between the shaft and a protected lobby/corridor described in Section 7, Diagram 7.2	30 min	30 min	30 min	Each side separately
c. any part not described in (a) or (b) above.	See Table B2	See Table B2	See Table B2	Each side separately
9. **Enclosure** (that does not form part of a compartment wall or a protected shaft) to a:				
a. protected stairway	30 min	30 min	30 min[8]	Each side separately
b. lift shaft.	30 min	30 min	30 min	Each side separately
10. **Wall or floor** separating an attached or integral garage from a dwellinghouse	30 min	30 min	30 min[8]	From garage side
11. **Fire resisting construction in dwellinghouses** not described elsewhere	30 min	30 min	30 min[8]	Each side separately
12. **Firefighting shafts**	120 min	120 min	120 min	From side remote from shaft
a. construction that separates firefighting shaft from rest of building	60 min	60 min	60 min	From shaft side
b. construction that separates firefighting stair, firefighting lift shaft and firefighting lobby.	60 min	60 min	60 min	Each side separately
13. **Enclosure** (that is not a compartment wall or described in item 8) to a:				
a. protected lobby	30 min	30 min	30 min[8]	Each side separately
b. protected corridor.	30 min	30 min	30 min[8]	Each side separately
14. **Sub-division of a corridor**	30 min	30 min	30 min[8]	Each side separately

Table B1 Continued

Part of building	Minimum provisions when tested and classified to the relevant European standard (minutes)[1] or assessed following the recommendations of paragraphs B1 to B5 (minutes)[2]			Type of exposure
	Loadbearing capacity[3]	Integrity	Insulation	
15. **Fire resisting construction**				
a. construction that encloses places of special fire hazard	30 min	30 min	30 min	Each side separately
b. construction between store rooms and sales area in shops	30 min	30 min	30 min	Each side separately
c. fire resisting sub-division	30 min	30 min	30 min	Each side separately
d. construction that encloses bedrooms and ancillary accommodation in care homes.	30 min	30 min	30 min	Each side separately
16. **Enclosure** in a flat to a protected entrance hall, or to a protected landing.	30 min	30 min	30 min[8]	Each side separately
17. **Cavity barrier**	Not applicable	30 min	15 min	Each side separately
18. **Ceiling** see paragraph 2.5 and Diagram 2.3; paragraph 8.5 and Diagram 8.3.	Not applicable	30 min	30 min	From underside
19. **Duct** described in paragraph 5.24e.	Not applicable	30 min	No provision	From outside
20. **Casing** around a drainage system described in Diagram 9.1.	Not applicable	30 min	No provision	From outside
21. **Flue walls** described in Diagram 9.5.	Not applicable	Half the period given in Table B2 for the compartment wall/floor	Half the period given in Table B2 for the compartment wall/floor	From outside
22. **Construction** described in note (a) to paragraph 12.9.	Not applicable	30 min	30 min	From underside

Table B1 Continued

Part of building	Minimum provisions when tested and classified to the relevant European standard (minutes)[1] or assessed following the recommendations of paragraphs B1 to B5 (minutes)[2]			Type of exposure
	Loadbearing capacity[3]	Integrity	Insulation	
23. **Fire doorsets**	See Table C1			See Appendix C

NOTES:

1. Classified in accordance with **BS EN 13501-2**, **BS EN 13501-3** or **BS EN 13501-4**. In the European classification 'R' is the resistance to fire in terms of loadbearing capacity, 'E' is the resistance to fire in terms of integrity, 'I' is the resistance to fire in terms of insulation. Products or systems cannot typically assume a European class unless they have been tested and classified accordingly.
2. When assessed as being capable of meeting a performance classification, products or systems should follow the relevant test standards to indicate their fire resistance performance in terms of loadbearing capacity, integrity or insulation for a period of minutes, when following the recommendations of paragraphs B1 to B5.
3. Applies to loadbearing elements only (see paragraph B18).
4. Guidance on increasing the fire resistance of existing timber floors is given in BRE Digest 208.
5. Only if a suspended ceiling meets the appropriate provisions should it be relied on to add to the fire resistance of the floor.
6. Such walls may contain areas that do not need to be fire resisting (unprotected areas). See Section 11.
7. Unless needed as part of a wall in item 5a or 5b.
8. Except for any limitations on uninsulated glazed elements given in Table B3.

Table B2 Minimum periods of fire resistance

Purpose group of building	Minimum periods of fire resistance[1] (minutes) in a:						
	Basement storey* including floor over		Ground or upper storey				
	Depth (m) of the lowest basement		Height (m) of top floor above ground, in a building or separated part of a building				
	More than 10	Up to 10	Up to 5	Up to 11	Up to 18	Up to 30	More than 30
1. Residential:							
a. Block of flats							
– without sprinkler system	90 min	60 min	30 min†	60 min+§	Not permitted[2]	Not permitted[2]	Not permitted[2]
– with sprinkler system[3]	90 min	60 min	30 min†	60 min+§	60 min+§	90 min+	120 min+
b. and c. Dwellinghouse	Not applicable[4]	30 min*†	30 min†	60 min[5]	60 min[5]	Not applicable[4]	Not applicable[4]
2. Residential							
a. Institutional	90 min	60 min	30 min†	60 min	60 min	90 min	120 min‡
b. Other residential	90 min	60 min	30 min†	60 min	60 min	90 min	120 min‡
3. Office:							
– without sprinkler system	90 min	60 min	30 min†	60 min	60 min	90 min	Not permitted[6]
– with sprinkler system[3]	60 min	60 min	30 min†	30 min†	30 min†	60 min	120 min‡
4. Shop and commercial:							
– without sprinkler system	90 min	60 min	60 min	60 min	60 min	90 min	Not permitted[6]
– with sprinkler system[3]	60 min	60 min	30 min†	60 min	60 min	60 min	120 min‡
5. Assembly and recreation:							
– without sprinkler system	90 min	60 min	60 min	60 min	60 min	90 min	Not permitted[6]
– with sprinkler system[3]	60 min	60 min	30 min†	60 min	60 min	60 min	120 min‡
6. Industrial:							
– without sprinkler system	120 min	90 min	60 min	90 min	90 min	120 min	Not permitted[6]
– with sprinkler system[3]	90 min	60 min	30 min†	60 min	60 min	90 min	120 min‡
7. Storage and other non-residential:							
a. any building or part not described elsewhere:							
– without sprinkler system	120 min	90 min	60 min	90 min	90 min	120 min	Not permitted[6]
– with sprinkler system[3]	90 min	60 min	30 min†	60 min	60 min	90 min	120 min‡

Table B2 Continued

Purpose group of building	Minimum periods of fire resistance[1] (minutes) in a:						
	Basement storey* including floor over		Ground or upper storey				
	Depth (m) of the lowest basement		Height (m) of top floor above ground, in a building or separated part of a building				
	More than 10	Up to 10	Up to 5	Up to 11	Up to 18	Up to 30	More than 30
b. car park for light vehicles:							
i. open sided car park[7]	Not applicable	Not applicable	15 min†#	15 min†#[8]	15 min†#[8]	15 min†#[8]	60 min
ii. any other car park	90 min	60 min	30 min†	60 min	60 min	90 min	120 min‡

NOTES:

For single storey buildings, the periods under the heading 'Up to 5' apply. If single storey buildings have basements, for the basement storeys the period appropriate to their depth applies.

* For the floor over a basement or, if there is more than one basement, the floor over the topmost basement, the higher of the period for the basement storey and the period for the ground or upper storey applies.

† For compartment walls that separate buildings, the period is increased to a minimum of 60 minutes.

+ For any floor that does not contribute to the support of the building within a flat of more than one storey, the period is reduced to 30 minutes.

§ For flat conversions, refer to paragraphs 6.5 to 6.7 regarding the acceptability of 30 minutes.

‡ For elements that do not form part of the structural frame, the period is reduced to 90 minutes.

For elements that protect the means of escape, the period is increased to 30 minutes.

1. Refer to note 1, Table B1 for the specific provisions of test.
2. Blocks of flats with a top storey more than 11m above ground level (see Diagram D6) should be fitted with a sprinkler system in accordance with Appendix E.

   NOTE: Sprinklers should be provided within the individual flats, they do not need to be provided in the common areas such as stairs, corridors or landings when these areas are fire sterile.
3. 'With sprinkler system' means that the building is fitted throughout with an automatic sprinkler system in accordance with Appendix E.
4. Very large (with a top storey more than 18m above ground level or with a 10m deep basement) or unusual dwellinghouses are outside the scope of the guidance provided with regard to dwellinghouses.
5. A minimum of 30 minutes in the case of three storey dwellinghouses, increased to 60 minutes minimum for compartment walls separating buildings.
6. Buildings within the 'office', 'shop and commercial', 'assembly and recreation', 'industrial' and 'storage and other non-residential' (except car parks for light vehicles) purpose groups (purpose groups 3 to 7(a)) require sprinklers where there is a top storey more than 30m above ground level.
7. The car park should comply with the relevant provisions in the guidance on requirement B3, Section 1 of Approved Document B Volume 2.
8. For the purposes of meeting the Building Regulations, the following types of steel elements are deemed to have satisfied the minimum period of fire resistance of 15 minutes when tested to the European test method.
   i. Beams supporting concrete floors, maximum $Hp/A=230m^{-1}$ operating under full design load.
   ii. Free-standing columns, maximum $Hp/A=180m^{-1}$ operating under full design load.
   iii. Wind bracing and struts, maximum $Hp/A=210m^{-1}$ operating under full design load.

   Guidance is also available in **BS EN 1993-1-2**.

Application of the fire resistance standards in Table B2

B26 The following guidance should be used when applying the fire resistance standards in Table B2.

a. If one element of structure supports or carries or gives stability to another, the fire resistance of the supporting element should be no less than the minimum period of fire resistance for the other element (whether that other element is loadbearing or not). In some circumstances, it may be reasonable to vary this principle, for example:

   i. if the supporting structure is in the open air and is not likely to be affected by the fire in the building

   ii. if the supporting structure is in a different compartment, with a fire-separating element (that has the higher standard of fire resistance) between the supporting and the separated structure

   iii. if a plant room on the roof needs greater fire resistance than the elements of structure that support it.

b. If an element of structure forms part of more than one building or compartment, that element should be constructed to the standard of the higher of the relevant provisions.

c. If, due to the slope of the ground, one side of a basement is open at ground level (allowing smoke to vent and providing access for firefighting) for elements of structure in that storey it may be appropriate to adopt the standard of fire resistance that applies to above-ground structures.

d. Although most elements of structure in a single storey building may not need fire resistance, fire resistance is needed if one of the following applies to the element.

   i. It is part of, or supports, an external wall, and there is provision in the guidance on requirement B4 to limit the extent of openings and other unprotected areas in the wall.

   ii. It is part of, or supports, a compartment wall, including a wall that is common to two or more buildings.

   iii. It supports a gallery.

B27 For the purposes of this paragraph, the ground storey of a building that has one or more basement storeys and no upper storeys may be considered as a single storey building. The fire resistance of the basement storeys should be that specified for basements.

Table B3 Limitations on the use of uninsulated glazed elements on escape routes. These limitations *do not* apply to glazed elements that satisfy the relevant insulation criterion, see Table B1

Position of glazed element	Maximum total glazed area in parts of a building with access to:			
	A single stair		More than one stair	
	Walls	Door leaf	Walls	Door leaf
Flats				
1. Within the enclosures of a protected entrance hall or protected landing, or within fire resisting separation shown in Section 3, Diagram 3.4.	Fixed fanlights only	Unlimited above 1100mm from floor	Fixed fanlights only	Unlimited above 1100mm from floor
Dwellinghouses				
2. Within either: a. the enclosures of a protected stairway b. fire resisting separation shown in Diagram 2.2.	Unlimited above 1100mm from floor or pitch of the stair	Unlimited	Unlimited above 1100mm from floor or pitch of the stair	Unlimited
3. Within fire resisting separation either: a. shown in Diagram 2.4 b. described in paragraph 2.16b.	Unlimited above 100mm from floor	Unlimited above 100mm from floor	Unlimited above 100mm from floor	Unlimited above 100mm from floor
4. Existing window between an attached/ integral garage and the dwellinghouse.	Unlimited	Not applicable	Unlimited	Not applicable
5. Adjacent to an external escape stair (see paragraph 2.17 and Diagram 2.7) or roof escape route (see paragraph 2.13).	Unlimited	Unlimited	Unlimited	Unlimited
General (except dwellinghouses)				
6. Between residential/sleeping accommodation and a common escape route (corridor, lobby or stair).	Nil	Nil	Nil	Nil
7. Between a protected stairway[1] and either: a. the accommodation b. a corridor that *is not* a protected corridor *other than in item 6 above*.	Nil	25% of door area	Unlimited above 1100mm[2]	50% of door area
8. Between either: a. a protected stairway[1] and a protected lobby or protected corridor b. accommodation and a protected lobby *other than in item 6 above*.	Unlimited above 1100mm from floor	Unlimited above 100mm from floor	Unlimited above 100mm from floor	Unlimited above 100mm from floor
9. Between the accommodation and a protected corridor that forms a dead end, *other than in item 6 above*.	Unlimited above 1100mm from floor	Unlimited above 100mm from floor	Unlimited above 1100mm from floor	Unlimited above 100mm from floor
10. Between accommodation and any other corridor, or sub-dividing corridors, *other than in item 6 above*.	Not applicable	Not applicable	Unlimited above 100mm from floor	Unlimited above 100mm from floor
11. Beside an external escape route.	Unlimited above 1100mm from floor	Unlimited above 1100mm from floor	Unlimited above 1100mm from floor	Unlimited above 1100mm from floor

Table B3 Continued

Position of glazed element	Maximum total glazed area in parts of a building with access to:			
	A single stair		More than one stair	
	Walls	Door leaf	Walls	Door leaf
12. Beside an external escape stair (see paragraph 3.68 and Diagram 3.11) or roof escape route (see paragraph 3.30).	Unlimited	Unlimited	Unlimited	Unlimited

NOTES:

Items 1 and 8 apply also to single storey buildings.

Fire resisting glass should be marked with the name of the manufacturer and the name of the product.

Further guidance can be found in *A Guide to Best Practice in the Specification and Use of Fire-resistant Glazed Systems* published by the Glass and Glazing Federation.

1. If the protected stairway is also a protected shaft or a firefighting stair (see Section 15), there may be further restrictions on the use of glazed elements.
2. Measured vertically from the landing floor level or the stair pitch line.
3. The 100mm limit is intended to reduce the risk of fire spreading from a floor covering.

Appendix C: Fire doorsets

Pages 136 to 139 **Replace** the whole of **Appendix C: Fire doorsets** with the following.

C1 All fire doorsets should have the performance shown in Table C1, based on one of the following.

a. Fire doorsets should be classified in accordance with **BS EN 13501-2**, as determined with reference to Commission Decision 2000/367/EC regarding the classification of the resistance to fire performance of construction products, construction works and parts thereof, when tested to the relevant European method from the following.

i. **BS EN 1634-1**.

ii. **BS EN 1634-2**.

iii. **BS EN 1634-3**.

b. Fire doorsets may have their performance on fire resistance assessed, following the recommendations of paragraphs B1 to B5, as being capable of meeting a performance classification. In those situations the performance classifications given in Table C1 may be used, presented in terms of integrity, for a period of minutes, when tested to a relevant standard.

c. As determined with reference to European Parliament and Council Directive 95/16/EC (which applies to lifts that permanently serve buildings and constructions and specified safety components) on the approximation of laws of Member States relating to lifts ('Lifts Directive') implementing the Lifts Regulations 1997 (SI 1997/831) and calling upon the harmonised standard **BS EN 81-58**.

C2 The performance requirement is in terms of integrity (E) for a period of minutes. An additional classification of S_a is used for all doors where restricted smoke leakage at ambient temperatures is needed.

C3 The requirement is for test exposure from each side of the doorset separately. The exception is lift doors, which are tested from the landing side only.

C4 Any test evidence used to verify the fire resistance rating of a doorset or shutter should be checked to ensure both of the following.

a. It adequately demonstrates compliance.

b. It is applicable to the **complete installed assembly**. Small differences in detail might significantly affect the rating and should be tested or assessed in accordance with paragraphs B1 to B5.

Until relevant harmonised product standards are published, for the purposes of meeting the Building Regulations, products or systems tested in accordance with **BS EN 1634-1** (with or without pre-fire test mechanical conditioning) or assessed as being capable of meeting a performance classification based on the recommendations of paragraphs B1 to B5 that achieve the minimum performance in Table C1 will be deemed to satisfy the provisions.

C5 All fire doorsets, including to flat entrances and between a dwellinghouse and an integral garage, should be fitted with a self-closing device, except for all of the following.

a. Fire doorsets to cupboards.

b. Fire doorsets to service ducts normally locked shut.

c. Fire doorsets within flats and dwellinghouses.

C6 If a self-closing device would be considered to interfere with the normal approved use of the building, self-closing fire doors may be held open by one of the following.

a. A fusible link, but not if the doorset is in an opening provided as a means of escape unless it complies with paragraph C7.

b. An automatic release mechanism activated by an automatic fire detection and alarm system.

c. A door closer delay device.

C7 Two fire doorsets may be fitted in the same opening if each door is capable of closing the opening, so the total fire resistance is the sum of their individual resistances. If the opening is provided as a means of escape, both fire doorsets should be self-closing.

If one fire doorset is capable of being easily opened by hand and has a minimum of 30 minutes' fire resistance, the other fire doorset should comply with both of the following.

a. Be fitted with an automatic self-closing device.

b. Be held open by a fusible link.

C8 Fire doorsets often do not provide any significant insulation. Unless providing both integrity and insulation in accordance with Appendix B, Table B1, a maximum of 25% of the length of a compartment wall should consist of door openings.

Where it is practicable to maintain a clear space on both sides of the doorway, the above percentage may be greater.

C9 Rolling shutters should be capable of manual opening and closing for firefighting purposes (see Section 15). Rolling shutters across a means of escape should only be released by a heat sensor, such as a fusible link or electric heat detector, in the immediate vicinity of the door.

Unless a shutter is also intended to partially descend as part of a boundary to a smoke reservoir, shutters across a means of escape should not be closed by smoke detectors or a fire alarm system.

C10 Unless shown to be satisfactory when tested as part of a fire doorset assembly, the essential components of any hinge on which a fire door is hung should be made entirely from materials that have a minimum melting point of 800°C.

C11 Except for doorsets listed in paragraph C12, all fire doorsets should be marked with one of the following fire safety signs, complying with **BS 5499-5**, as appropriate.

a. To be kept closed when not in use – mark 'Fire door keep shut'.

b. To be kept locked when not in use – mark 'Fire door keep locked shut'.

c. Held open by an automatic release mechanism or free swing device – mark 'Automatic fire door keep clear'.

C12 The following fire doorsets are not required to comply with paragraph C11.

a. Doors to and within flats and dwellinghouses.

b. Bedroom doors in 'residential (other)' (purpose group 2(b)) premises.

c. Lift entrance/landing doors.

C13 The performance of some doorsets set out in Table C1 is linked to the minimum periods of fire resistance for elements of structure given in Tables B1 and B2. Limitations on the use of uninsulated glazing in fire doorsets are given in Table B3.

C14 Recommendations for the specification, design, construction, installation and maintenance of fire doorsets constructed with non-metallic door leaves are given in **BS 8214**.

Guidance on timber fire resisting doorsets, in relation to the new European test standard, may be found in *Timber Fire Resisting Doorsets: Maintaining Performance Under the New European Test Standard* published by the Timber Research and Development Association (TRADA).

Guidance for metal doors is given in *Code of Practice for Fire Resisting Metal Doorsets* published by the Door and Shutter Manufacturers' Association (DSMA).

C15 Hardware used on fire doors can significantly affect their performance in a fire. Notwithstanding the guidance in this approved document, guidance is available in *Hardware for Fire and Escape Doors* published by the Door and Hardware Federation (DHF) and Guild of Architectural Ironmongers (GAI).

Table C1 Provisions for fire doorsets

Position of doorset	Minimum fire resistance of doorset in terms of integrity (minutes) when tested and classified to the relevant European standard[1] or assessed following the recommendations of paragraph B1 to B5 and C1[2]
1. **In a compartment wall separating buildings**	Same as for the wall in which the door is fitted, but a minimum of 60 minutes
2. **In a compartment wall:**	
a. if it separates a flat from a space in common use	30 minutes S_a[3]
b. enclosing a protected shaft forming a stairway or an evacuation shaft wholly or partly above the adjoining ground in a building used for flats, other residential, assembly and recreation, or office purposes	30 minutes S_a[3]
c. enclosing a protected shaft forming a stairway or an evacuation shaft not described in (b) above	Half the period of fire resistance of the wall in which it is fitted, but 30 minutes minimum and with suffix S_a[3]
d. enclosing a protected shaft forming a lift or service shaft	Half the period of fire resistance of the wall in which it is fitted, but 30 minutes minimum
e. not described in (a), (b), (c) or (d) above.	Same as for the wall in which it is fitted, but add S_a[3] if the door is used for progressive horizontal evacuation under the guidance to requirement B1
3. **In a compartment floor**	Same as for the floor in which it is fitted
4. **Forming part of the enclosures of:**	
a. a protected stairway or evacuation shaft (except as described in item 9 or 11(b) below)	30 minutes S_a[3]
b. a lift shaft (see paragraph 3.99b) that does not form a protected shaft in 2(b), (c) or (d) above.	30 minutes
5. **Forming part of the enclosure of:**	
a. a protected lobby approach (or protected corridor) to a stairway or an evacuation shaft.	30 minutes S_a[3]
b. any other protected corridor	20 minutes S_a[3]
c. a protected lobby approach to a lift shaft (paragraphs 3.102 to 3.104).	30 minutes S_a[3]
6. **Giving access to an external escape route**	30 minutes
7. **Sub-dividing:**	
a. corridors connecting alternative exits	20 minutes S_a[3]
b. dead-end portions of corridors from the remainder of the corridor.	20 minutes S_a[3]
8. **Any door within a cavity barrier**	30 minutes
9. **Any door that forms part of the enclosure to a protected entrance hall or protected landing in a flat**	20 minutes
10. **Any door that forms part of the enclosure:**	
a. to a place of special fire hazard	30 minutes
b. to ancillary accommodation in care homes (see paragraph 2.44 in Approved Document B Volume 2).	30 minutes

Table C1 Continued

Position of doorset	Minimum fire resistance of doorset in terms of integrity (minutes) when tested and classified to the relevant European standard[1] or assessed following the recommendations of paragraph B1 to B5 and C1[2]
11. **In a dwellinghouse:**	
a. between a dwellinghouse and a garage	30 minutes S_a[3]
b. forming part of the enclosures to a protected stairway in a single family dwellinghouse	20 minutes
c. within any fire resisting construction in a dwellinghouse not described elsewhere in this table.	20 minutes

NOTES:

1. Classified in accordance with **BS EN 13501-2**. In the European classification 'E' is the resistance to fire in terms of integrity. Products or systems cannot typically assume a European class unless they have been tested and classified accordingly.
2. When assessed as being capable of meeting a performance classification, products or systems should follow the relevant test standards to indicate their fire resistance performance in terms of integrity for a period of minutes, when following the recommendations of paragraphs B1 to B5.
3. Unless pressurisation techniques that comply with **BS EN 12101-6** are used, these doors should also be evidenced to match in performance the additional S_a classification when tested to **BS EN 1634-3**.

Appendix F: Standards referred to

British standards

Page 150 **Delete** the section on **BS 476** Fire tests on building materials and structures.

Appendix G: Documents referred to

Other documents

Association for Specialist Fire Protection (ASFP)

Page 152 **Delete** the following publication.

ASFP Blue Book British Standard version – *Fire Resisting Ductwork, Tested to BS 476 Part 24, Third Edition.*

Index

Page 155 In the index entry for **British standards, delete** the following sub-entries.

BS 476-20 to 21 Table B3

BS 476-22 Table B3, Appendix C1, Table C1

BS 476-23 to 24 Table B3

BS 476-31.1 Table C1

The Building Regulations 2010

Approved Document B: Fire safety
Volume 2 – Buildings other than dwellings

2019 edition incorporating the 2020, 2022, 2025 and 2026 amendments

List of amendments

Taking effect on 2 September 2029

Appendix B: Performance of materials, products and structures

Pages 136 to 150 **Replace** the whole of **Appendix B: Performance of materials, products and structures** with the following.

Introduction

B1 The guidance in this document is given in terms of performance classifications in relation to European Standards. In such cases, it will be necessary to demonstrate that a system or product can meet the relevant performance classification. This will be achieved if the system or product complies with one of the following.

a. They should be in accordance with a specification or design that has been shown by specific test(s) to be capable of meeting that performance classification.

b. They should have been designed by using relevant design standards in order to meet that performance classification.

c. They should have been assessed by applying relevant test evidence, in lieu of carrying out a specific test, as being capable of meeting that performance classification.

NOTE: Some products are subject to Classification Without Further Testing (CWFT). For the purposes of this approved document, such products can be considered to have been shown to be capable of meeting a performance specification as per paragraph B1a.

B2 Any test evidence used to demonstrate the fire performance classification of a product or system should be carefully checked to ensure that it is applicable to the intended use. Small differences in detail, such as fixing method, joints, dimensions, the introduction of insulation materials and air gaps (ventilated or not), might significantly affect the performance and should be tested or assessed in accordance with paragraph B1.

B3 Assessments should not be regarded as a way to avoid a test where one is necessary. Assessments should only be carried out where sufficient relevant test evidence is available. Relevant test evidence is unlikely to be provided by test standards which have different classification criteria.

B4 Where it is proposed to assess the classification of a product or system in lieu of carrying out a specific test (as in paragraph B1c), this should be done in accordance with the relevant standard for extended application for the test in question and should include details of the test evidence that has been used to support the assessment.

For performance classifications where there is no specific standard for extended application, assessment reports should be produced in accordance with the principles of **BS EN 15725** and should include details of the test evidence that has been used to support the assessment. In cases where the end use application is not covered by the extended application standard and an assessment is the only other suitable approach, then further information on best practice is provided in the Passive Fire Protection Forum's *Guide to Undertaking Technical Assessments of the Fire Performance of Construction Products Based on Fire Test Evidence.* The same principle should be followed for assessments as described in paragraph B2.

NOTE: Regulation 7(2) limits components used in or on the external walls of certain buildings to materials achieving class A2-s1, d0 or class A1 (see Section 12). Assessments cannot be used to demonstrate compliance with this requirement.

B5 Tests and assessments should be carried out by organisations with the necessary expertise. For example, organisations listed as 'notified bodies' in accordance with the European Construction Products Regulation or laboratories accredited by the United Kingdom Accreditation Service (UKAS) for the relevant test standard can be assumed to have the necessary expertise.

NOTE: Standard fire tests do not directly measure fire hazard. They measure or assess the response of a material or system to exposure to one or more aspects of fire conditions. Performance in fire tests is only one of a number of factors that should be taken into account.

Reaction to fire

B6 Reaction to fire relates to the degree to which a product will contribute, by its own decomposition, to a fire under specified conditions. Products, other than floorings, are classified as A1, A2, B, C, D, E or F (with class A1 being the highest performance and F being the lowest) in accordance with **BS EN 13501-1**. Class F is assigned when a product fails to attain class E. Untested products cannot be classified in accordance with **BS EN 13501-1**.

Materials covered by the Classification Without Further Testing (CWFT) process can be found by accessing the European Commission's website https://eur-lex.europa.eu/.

B7 The classes of reaction to fire performance of A2, B, C, D and E are accompanied by additional classifications related to the production of smoke (s1, s2, s3), with s1 indicating the lowest production, and/or flaming droplets/particles (d0, d1, d2), with d0 indicating the lowest production.

NOTE: When a classification includes s3, d2 this means that there is no limit set for smoke production and/or flaming droplets/particles.

B8 To reduce the testing burden on manufacturers, **BS EN 13238** defines a number of standard substrates that produce test results representative of different end use applications. The classification for reaction to fire achieved during testing is only valid when the product is used within this direct field of application, i.e. when the product is fixed to a substrate of that class in its end use. The standard substrate selected for testing should take account of the intended end use applications (field of application) of the product and represent end use substrates that have a density of a minimum of 75% of the standard substrate's nominal density.

B9 Standard substrates include gypsum plasterboard (**BS EN 520**) with a density of 700+/-100kg/m^3, calcium silicate board (**BS EN 14306**) 870+/-50kg/m^3 and fibre-cement board 1800+/-200kg/m^3.

NOTE: Standard calcium silicate board is not representative of gypsum plasterboard end use (due to the paper layer), but would be representative of most gypsum plasters (with densities of more than 650kg/m^3).

NOTE: Classifications based on tests using a plasterboard substrate would also be acceptable for products bonded to a gypsum plaster end use substrate.

Thermoplastic materials

B10 Thermoplastic material is any synthetic polymeric material that has a softening point below 200°C if tested to **BS EN ISO 306** Method A120. Products formed from these materials cannot always be classified in the normal way. In those circumstances the following approach can be followed.

B11 Thermoplastic materials used for window glazing, rooflights and lighting diffusers within suspended ceilings do not need to meet the criteria within paragraph B18 onwards, if the guidance to requirements B2 and B4 is followed.

B12 For the purposes of requirements B2 and B4, thermoplastic materials should be classified as TP(a) rigid, TP(a) flexible or TP(b), as follows:

a. **TP(a) rigid**

   i. rigid solid uPVC sheet

   ii. solid (as distinct from double- or multi-skinned) polycarbonate sheet a minimum of 3mm thick

   iii. any other rigid thermoplastic product, a specimen of which (at the thickness of the product as put on the market), when tested to **BS 2782-0** Method 508A, performs so that both:

   - the test flame extinguishes before the first mark
   - the duration of flaming or afterglow does not exceed 5 seconds following removal of the burner.

b. **TP(a) flexible**

Flexible products a maximum of 1mm thick that comply with the Type C requirements of **BS 5867-2** when tested to **BS 5438** Test 2 with the flame applied to the surface of the specimens for 5, 15, 20 and 30 seconds respectively, but excluding the cleansing procedure; and

c. **TP(b)**

i. rigid solid polycarbonate sheet products a maximum of 3mm thick, or multi-skinned polycarbonate sheet products that do not qualify as TP(a) by test

ii. other products which, when a specimen of the material between 1.5 and 3mm thick is tested in accordance with **BS 2782-0** Method 508A, have a maximum rate of burning of 50mm/minute.

NOTE: If it is not possible to cut or machine a 3mm thick specimen from the product, then a 3mm test specimen can be moulded from the same material as that used to manufacture the product.

B13 A thermoplastic material alone when used as a lining to a wall or ceiling cannot be assumed to protect a substrate. The surface rating of both thermoplastic material and substrate must therefore meet the required classification.

If, however, the thermoplastic material is fully bonded to a non-thermoplastic substrate, then only the surface rating of the composite needs to meet the required classification.

Roofs

B14 Performance of the resistance of roofs to external fire exposure is measured in terms of penetration through the roof construction and the spread of flame over its surface.

B15 Roof constructions are classified within the European system as $B_{ROOF}(t4)$, $C_{ROOF}(t4)$, $D_{ROOF}(t4)$, $E_{ROOF}(t4)$ or $F_{ROOF}(t4)$ in accordance with **BS EN 13501-5**. $B_{ROOF}(t4)$ indicates the highest performance and $F_{ROOF}(t4)$ the lowest.

B16 **BS EN 13501-5** refers to four separate roof tests. The suffix (t4) used in paragraph B15 indicates that Test 4 is to be used for the purposes of this approved document.

B17 This document uses the European classification system for roof covering set out in **BS EN 13501-5**; however, there may be some products or systems whose performance will need to be assessed based on the recommendations of paragraphs B1 to B5 as being capable of meeting that performance classification.

Fire resistance

B18 Common to all of the provisions of Part B of the Building Regulations is the property of fire resistance. Fire resistance is a measure of one or more of the following criteria.

a. **Resistance to collapse** (loadbearing capacity), which applies to loadbearing elements only, denoted R in the European classification of the resistance to fire performance.

b. **Resistance to fire penetration** (integrity), denoted E in the European classification of the resistance to fire performance.

c. **Resistance to the transfer of excessive heat** (insulation), denoted I in the European classification of the resistance to fire performance.

B19 The standards of fire resistance necessary for a particular building are based on assumptions about the severity of fires and the consequences should an element fail. Fire severity is estimated in very broad terms from the use of the building (its purpose group), on the assumption that the building contents (which constitute the fire load) are similar for buildings with the same use.

B20 Because the use of buildings may change, a precise estimate of fire severity based on the fire load due to a particular use may be misleading. Therefore if a fire engineering approach of this kind is adopted, the likelihood that the fire load may change in the future needs to be considered.

B21 Performance in terms of the fire resistance to be achieved by elements of structure, doors and other forms of construction is classified in accordance with one of the following.

a. **BS EN 13501-2**.

b. **BS EN 13501-3**.

c. **BS EN 13501-4**.

B22 Fire resistance is measured in minutes. This relates to time elapsed in a standard test and should not be confused with real time.

B23 The fire resistance necessary for different circumstances is set out in the following tables.

a. Table B1 gives the specific requirements for each element of structure.

b. Table B2 sets out the minimum periods of fire resistance for elements of structure.

c. Table B3 sets out limitations on the use of uninsulated fire resisting glazed elements.

B24 This document uses the European classification system (REI) for fire resistance set out in **BS EN 13501-2** to **4**. Fire resistance is expressed as REI X, where X is the period of fire resistance in minutes in terms of loadbearing capacity (R), integrity (E) and insulation (I). Products or systems cannot typically assume a European class unless they have been tested and classified accordingly.

B25 Products or systems achieving the European classification (REI) should be specified wherever possible. However, there may be some products or systems that have been assessed as being capable of meeting a fire resistance performance classification. When assessed, products or systems should follow the relevant test standards to indicate their fire resistance performance in terms of loadbearing capacity, integrity and insulation based on the recommendations of paragraphs B1 to B5. In those situations, the performance classifications given in Table B1 and Table B2 may be used.

Table B1 Specific provisions of the test for fire resistance of elements of structure, etc.

Part of building	Minimum provisions when tested and classified to the relevant European standard (minutes)[1] or assessed following the recommendations of paragraphs B1 to B5 (minutes)[2]			Type of exposure
	Loadbearing capacity[3]	Integrity	Insulation	
1. **Structural** frame, beam or column.	See Table B2	Not applicable	Not applicable	Exposed faces
2. **Loadbearing wall** (for a wall which is also described in any of the following items, the more onerous guidance should be applied).	See Table B2	Not applicable	Not applicable	Each side separately
3. **Floors**[4]				
a. between a shop and flat above	60 min or see Table B2 (whichever is greater)	60 min or see Table B2 (whichever is greater)	60 min or see Table B2 (whichever is greater)	From underside[5]
b. in upper storey of two storey dwellinghouse (but not over garage or basement)	30 min	15 min	15 min	From underside[5]
c. any other floor – including compartment floors.	See Table B2	See Table B2	See Table B2	From underside[5]
4. **Roofs**				
a. any part forming an escape route	30 min	30 min	30 min	From underside[5]
b. any roof that performs the function of a floor.	See Table B2	See Table B2	See Table B2	From underside[5]
5. **External walls**				
a. any part a maximum of 1000mm from any point on the relevant boundary[6]	See Table B2	See Table B2	See Table B2	Each side separately
b. any part a minimum of 1000mm from the relevant boundary[6]	See Table B2	See Table B2	15 min	From inside the building
c. any part beside an external escape route (Section 2, Diagram 2.7 of Approved Document B Volume 1 and Section 3, Diagram 3.4).	30 min	30 min	No provision[7] [8]	From inside the building

Table B1 Continued

Part of building	Minimum provisions when tested and classified to the relevant European standard (minutes)[1] or assessed following the recommendations of paragraphs B1 to B5 (minutes)[2]			Type of exposure
	Loadbearing capacity[3]	Integrity	Insulation	
6. **Compartment walls** Separating either:				
a. a flat from any other part of the building (see paragraph 7.1 of Approved Document B Volume 1)	60 min or see Table B2 (whichever is less)	60 min or see Table B2 (whichever is less)	60 min or see Table B2 (whichever is less)	Each side separately
b. occupancies.	60 min or see Table B2 (whichever is less)	60 min or see Table B2 (whichever is less)	60 min or see Table B2 (whichever is less)	Each side separately
7. **Compartment walls** (other than in item 6 or item 10).	See Table B2	See Table B2	See Table B2	Each side separately
8. **Protected shafts** Excluding any firefighting shaft:				
a. any glazing described in Section 8, Diagram 8.4	Not applicable	30 min	No provision[8]	Each side separately
b. any other part between the shaft and a protected lobby/corridor described in Section 8, Diagram 8.4	30 min	30 min	30 min	Each side separately
c. any part not described in (a) or (b) above.	See Table B2	See Table B2	See Table B2	Each side separately
9. **Enclosure** (that does not form part of a compartment wall or a protected shaft) to a:				
a. protected stairway	30 min	30 min	30 min[8]	Each side separately
b. lift shaft.	30 min	30 min	30 min	Each side separately
10. **Wall or floor** separating an attached or integral garage from a dwellinghouse	30 min	30 min	30 min[8]	From garage side
11. **Fire resisting construction in dwellinghouses** not described elsewhere	30 min	30 min	30 min[8]	Each side separately
12. **Firefighting shafts**	120 min	120 min	120 min	From side remote from shaft
a. construction that separates firefighting shaft from rest of building	60 min	60 min	60 min	From shaft side
b. construction that separates firefighting stair, firefighting lift shaft and firefighting lobby.	60 min	60 min	60 min	Each side separately

Table B1 Continued

Part of building	Minimum provisions when tested and classified to the relevant European standard (minutes)[1] or assessed following the recommendations of paragraphs B1 to B5 (minutes)[2]			Type of exposure
	Loadbearing capacity[3]	Integrity	Insulation	
13. **Enclosure** (that is not a compartment wall or described in item 8) to a:				
a. protected lobby	30 min	30 min	30 min[8]	Each side separately
b. protected corridor.	30 min	30 min	30 min[8]	Each side separately
14. **Sub-division of a corridor**	30 min	30 min	30 min[8]	Each side separately
15. **Fire resisting construction**				
a. construction that encloses places of special fire hazard	30 min	30 min	30 min	Each side separately
b. construction between store rooms and sales area in shops	30 min	30 min	30 min	Each side separately
c. fire resisting sub-division	30 min	30 min	30 min	Each side separately
d. construction that encloses bedrooms and ancillary accommodation in care homes.	30 min	30 min	30 min	Each side separately
16. **Enclosure** in a flat to a protected entrance hall, or to a protected landing.	30 min	30 min	30 min[8]	Each side separately
17. **Cavity barrier**	Not applicable	30 min	15 min	Each side separately
18. **Ceiling** see see paragraph 2.5, Diagram 2.3 of Approved Document B Volume 1 and paragraph 9.5 and Diagram 9.3.	Not applicable	30 min	30 min	From underside
19. **Duct** described in paragraph 9.17e.	Not applicable	30 min	No provision	From outside
20. **Casing** around a drainage system described in Diagram 9.1 of Approved Document B Volume 1.	Not applicable	30 min	No provision	From outside
21. **Flue walls** described in Diagram 10.4.	Not applicable	Half the period given in Table B2 for the compartment wall/floor	Half the period given in Table B2 for the compartment wall/floor	From outside
22. **Construction** described in note (a) to paragraph 12.9 of Approved Document B Volume 1.	Not applicable	30 min	30 min	From underside

Table B1 Continued

Part of building	Minimum provisions when tested and classified to the relevant European standard (minutes)[1] or assessed following the recommendations of paragraphs B1 to B5 (minutes)[2]			Type of exposure
	Loadbearing capacity[3]	Integrity	Insulation	
23. **Fire doorsets**	See Table C1			See Appendix C

NOTES:

1. Classified in accordance with **BS EN 13501-2**, **BS EN 13501-3** or **BS EN 13501-4**. In the European classification 'R' is the resistance to fire in terms of loadbearing capacity, 'E' is the resistance to fire in terms of integrity, 'I' is the resistance to fire in terms of insulation. Products or systems cannot typically assume a European class unless they have been tested and classified accordingly.
2. When assessed as being capable of meeting a performance classification, products or systems should follow the relevant test standards to indicate their fire resistance performance in terms of loadbearing capacity, integrity or insulation for a period of minutes, when following the recommendations of paragraphs B1 to B5.
3. Applies to loadbearing elements only (see paragraph B18).
4. Guidance on increasing the fire resistance of existing timber floors is given in BRE Digest 208.
5. Only if a suspended ceiling meets the appropriate provisions should it be relied on to add to the fire resistance of the floor.
6. Such walls may contain areas that do not need to be fire resisting (unprotected areas). See Section 13.
7. Unless needed as part of a wall in item 5a or 5b.
8. Except for any limitations on uninsulated glazed elements given in Table B3.

Table B2 Minimum periods of fire resistance

Purpose group of building	Minimum periods of fire resistance[1] (minutes) in a:						
	Basement storey* including floor over		Ground or upper storey				
	Depth (m) of the lowest basement		Height (m) of top floor above ground, in a building or separated part of a building				
	More than 10	Up to 10	Up to 5	Up to 11	Up to 18	Up to 30	More than 30
1. Residential:							
a. Block of flats							
– without sprinkler system	90 min	60 min	30 min†	60 min+§	Not permitted[2]	Not permitted[2]	Not permitted[2]
– with sprinkler system[3]	90 min	60 min	30 min†	60 min+§	60 min+§	90 min+	120 min+
b. and c. Dwellinghouse	Not applicable[4]	30 min*†	30 min†	60 min[5]	60 min[5]	Not applicable[4]	Not applicable[4]
2. Residential							
a. Institutional	90 min	60 min	30 min†	60 min	60 min	90 min	120 min‡
b. Other residential	90 min	60 min	30 min†	60 min	60 min	90 min	120 min‡
3. Office:							
– without sprinkler system	90 min	60 min	30 min†	60 min	60 min	90 min	Not permitted[6]
– with sprinkler system[3]	60 min	60 min	30 min†	30 min†	30 min†	60 min	120 min‡
4. Shop and commercial:							
– without sprinkler system	90 min	60 min	60 min	60 min	60 min	90 min	Not permitted[6]
– with sprinkler system[3]	60 min	60 min	30 min†	60 min	60 min	60 min	120 min‡
5. Assembly and recreation:							
– without sprinkler system	90 min	60 min	60 min	60 min	60 min	90 min	Not permitted[6]
– with sprinkler system[3]	60 min	60 min	30 min†	60 min	60 min	60 min	120 min‡
6. Industrial:							
– without sprinkler system	120 min	90 min	60 min	90 min	90 min	120 min	Not permitted[6]
– with sprinkler system[3]	90 min	60 min	30 min†	60 min	60 min	90 min	120 min‡
7. Storage and other non-residential:							
a. any building or part not described elsewhere:							
– without sprinkler system	120 min	90 min	60 min	90 min	90 min	120 min	Not permitted[6]
– with sprinkler system[3]	90 min	60 min	30 min†	60 min	60 min	90 min	120 min‡

Table B2 Continued

Purpose group of building	Minimum periods of fire resistance[1] (minutes) in a:						
	Basement storey* including floor over		Ground or upper storey				
	Depth (m) of the lowest basement		Height (m) of top floor above ground, in a building or separated part of a building				
	More than 10	Up to 10	Up to 5	Up to 11	Up to 18	Up to 30	More than 30
b. car park for light vehicles:							
i. open sided car park[7]	Not applicable	Not applicable	15 min†#	15 min†#[8]	15 min†#[8]	15 min†#[8]	60 min
ii. any other car park	90 min	60 min	30 min†	60 min	60 min	90 min	120 min‡

NOTES:

For single storey buildings, the periods under the heading 'Up to 5' apply. If single storey buildings have basements, for the basement storeys the period appropriate to their depth applies.

* For the floor over a basement or, if there is more than one basement, the floor over the topmost basement, the higher of the period for the basement storey and the period for the ground or upper storey applies.

† For compartment walls that separate buildings, the period is increased to a minimum of 60 minutes.

+ For any floor that does not contribute to the support of the building within a flat of more than one storey, the period is reduced to 30 minutes.

§ For flat conversions, refer to paragraphs 6.5 to 6.7 of Approved Document B Volume 1 regarding the acceptability of 30 minutes.

‡ For elements that do not form part of the structural frame, the period is reduced to 90 minutes.

For elements that protect the means of escape, the period is increased to 30 minutes.

1. Refer to note 1, Table B1 for the specific provisions of test.
2. Blocks of flats with a top storey more than 11m above ground level (see Diagram D6) should be fitted with a sprinkler system in accordance with Appendix E.

   NOTE: Sprinklers should be provided within the individual flats, they do not need to be provided in the common areas such as stairs, corridors or landings when these areas are fire sterile.
3. 'With sprinkler system' means that the building is fitted throughout with an automatic sprinkler system in accordance with Appendix E.
4. Very large (with a top storey more than 18m above ground level or with a 10m deep basement) or unusual dwellinghouses are outside the scope of the guidance provided with regard to dwellinghouses.
5. A minimum of 30 minutes in the case of three storey dwellinghouses, increased to 60 minutes minimum for compartment walls separating buildings.
6. Buildings within the 'office', 'shop and commercial', 'assembly and recreation', 'industrial' and 'storage and other non-residential' (except car parks for light vehicles) purpose groups (purpose groups 3 to 7(a)) require sprinklers where there is a top storey more than 30m above ground level.
7. The car park should comply with the relevant provisions in the guidance on requirement B3, Section 11.
8. For the purposes of meeting the Building Regulations, the following types of steel elements are deemed to have satisfied the minimum period of fire resistance of 15 minutes when tested to the European test method.
   i. Beams supporting concrete floors, maximum $Hp/A=230m^{-1}$ operating under full design load.
   ii. Free-standing columns, maximum $Hp/A=180m^{-1}$ operating under full design load.
   iii. Wind bracing and struts, maximum $Hp/A=210m^{-1}$ operating under full design load.

   Guidance is also available in **BS EN 1993-1-2**.

Application of the fire resistance standards in Table B2

B26 The following guidance should be used when applying the fire resistance standards in Table B2.

a. If one element of structure supports or carries or gives stability to another, the fire resistance of the supporting element should be no less than the minimum period of fire resistance for the other element (whether that other element is loadbearing or not). In some circumstances, it may be reasonable to vary this principle, for example:

   i. if the supporting structure is in the open air and is not likely to be affected by the fire in the building

   ii. if the supporting structure is in a different compartment, with a fire-separating element (that has the higher standard of fire resistance) between the supporting and the separated structure

   iii. if a plant room on the roof needs greater fire resistance than the elements of structure that support it.

b. If an element of structure forms part of more than one building or compartment, that element should be constructed to the standard of the higher of the relevant provisions.

c. If, due to the slope of the ground, one side of a basement is open at ground level (allowing smoke to vent and providing access for firefighting) for elements of structure in that storey it may be appropriate to adopt the standard of fire resistance that applies to above-ground structures.

d. Although most elements of structure in a single storey building may not need fire resistance, fire resistance is needed if one of the following applies to the element.

   i. It is part of, or supports, an external wall, and there is provision in the guidance on requirement B4 to limit the extent of openings and other unprotected areas in the wall.

   ii. It is part of, or supports, a compartment wall, including a wall that is common to two or more buildings.

   iii. It supports a gallery.

B27 For the purposes of this paragraph, the ground storey of a building that has one or more basement storeys and no upper storeys may be considered as a single storey building. The fire resistance of the basement storeys should be that specified for basements.

Table B3 Limitations on the use of uninsulated glazed elements on escape routes. These limitations *do not* apply to glazed elements that satisfy the relevant insulation criterion, see Table B1

Position of glazed element	Maximum total glazed area in parts of a building with access to:			
	A single stair		More than one stair	
	Walls	Door leaf	Walls	Door leaf
Flats				
1. Within the enclosures of a protected entrance hall or protected landing, or within fire resisting separation shown in Section 3, Diagram 3.4 of Approved Document B Volume 1.	Fixed fanlights only	Unlimited above 1100mm from floor	Fixed fanlights only	Unlimited above 1100mm from floor
Dwellinghouses				
2. Within either: a. the enclosures of a protected stairway b. fire resisting separation shown in Diagram 2.2 of Approved Document B Volume 1.	Unlimited above 1100mm from floor or pitch of the stair	Unlimited	Unlimited above 1100mm from floor or pitch of the stair	Unlimited
3. Within fire resisting separation either: a. shown in Diagram 2.4 of Approved Document B Volume 1 b. described in paragraph 2.16b of Approved Document B Volume 1.	Unlimited above 100mm from floor	Unlimited above 100mm from floor	Unlimited above 100mm from floor	Unlimited above 100mm from floor
4. Existing window between an attached/ integral garage and the dwellinghouse.	Unlimited	Not applicable	Unlimited	Not applicable
5. Adjacent to an external escape stair (see paragraph 2.17 and Diagram 27 of Approved Document B Volume 1) or roof escape route (see paragraph 2.13 of Approved Document B Volume 1).	Unlimited	Unlimited	Unlimited	Unlimited
General (except dwellinghouses)				
6. Between residential/sleeping accommodation and a common escape route (corridor, lobby or stair).	Nil	Nil	Nil	Nil
7. Between a protected stairway[1] and either: a. the accommodation b. a corridor that *is not* a protected corridor *other than in item 6 above*.	Nil	25% of door area	Unlimited above 1100mm[2]	50% of door area
8. Between either: a. a protected stairway[1] and a protected lobby or protected corridor b. accommodation and a protected lobby *other than in item 6 above*.	Unlimited above 1100mm from floor	Unlimited above 100mm from floor	Unlimited above 100mm from floor	Unlimited above 100mm from floor
9. Between the accommodation and a protected corridor that forms a dead end, *other than in item 6 above*.	Unlimited above 1100mm from floor	Unlimited above 100mm from floor	Unlimited above 1100mm from floor	Unlimited above 100mm from floor
10. Between accommodation and any other corridor, or sub-dividing corridors, *other than in item 6 above*.	Not applicable	Not applicable	Unlimited above 100mm from floor	Unlimited above 100mm from floor

Table B3 Continued

Position of glazed element	Maximum total glazed area in parts of a building with access to:			
	A single stair		More than one stair	
	Walls	Door leaf	Walls	Door leaf
11. Beside an external escape route.	Unlimited above 1100mm from floor	Unlimited above 1100mm from floor	Unlimited above 1100mm from floor	Unlimited above 1100mm from floor
12. Beside an external escape stair (see paragraph 3.32 and Diagram 3.4) or roof escape route (see paragraph 2.32).	Unlimited	Unlimited	Unlimited	Unlimited

NOTES:

Items 1 and 8 apply also to single storey buildings.

Fire resisting glass should be marked with the name of the manufacturer and the name of the product.

Further guidance can be found in *A Guide to Best Practice in the Specification and Use of Fire-resistant Glazed Systems* published by the Glass and Glazing Federation.

1. If the protected stairway is also a protected shaft or a firefighting stair (see Section 17), there may be further restrictions on the use of glazed elements.
2. Measured vertically from the landing floor level or the stair pitch line.
3. The 100mm limit is intended to reduce the risk of fire spreading from a floor covering.

Appendix C: Fire doorsets

Pages 151 to 154 **Replace the whole of Appendix C: Fire doorsets with the following.**

C1 All fire doorsets should have the performance shown in Table C1, based on one of the following.

a. Fire doorsets should be classified in accordance with **BS EN 13501-2**, as determined with reference to Commission Decision 2000/367/EC regarding the classification of the resistance to fire performance of construction products, construction works and parts thereof, when tested to the relevant European method from the following.

i. **BS EN 1634-1**.

ii. **BS EN 1634-2**.

iii. **BS EN 1634-3**.

b. Fire doorsets may have their performance on fire resistance assessed, following the recommendations of paragraphs B1 to B5, as being capable of meeting a performance classification. In those situations the performance classifications given in Table C1 may be used, presented in terms of integrity, for a period of minutes, when tested to a relevant standard.

c. As determined with reference to European Parliament and Council Directive 95/16/EC (which applies to lifts that permanently serve buildings and constructions and specified safety components) on the approximation of laws of Member States relating to lifts ('Lifts Directive') implementing the Lifts Regulations 1997 (SI 1997/831) and calling upon the harmonised standard **BS EN 81-58**.

C2 The performance requirement is in terms of integrity (E) for a period of minutes. An additional classification of S_a is used for all doors where restricted smoke leakage at ambient temperatures is needed.

C3 The requirement is for test exposure from each side of the doorset separately. The exception is lift doors, which are tested from the landing side only.

C4 Any test evidence used to verify the fire resistance rating of a doorset or shutter should be checked to ensure both of the following.

a. It adequately demonstrates compliance.

b. It is applicable to the **complete installed assembly**. Small differences in detail might significantly affect the rating and should be tested or assessed in accordance with paragraphs B1 to B5.

Until relevant harmonised product standards are published, for the purposes of meeting the Building Regulations, products or systems tested in accordance with **BS EN 1634-1** (with or without pre-fire test mechanical conditioning) or assessed as being capable of meeting a performance classification based on the recommendations of paragraphs B1 to B5 that achieve the minimum performance in Table C1 will be deemed to satisfy the provisions.

C5 All fire doorsets, including to flat entrances and between a dwellinghouse and an integral garage, should be fitted with a self-closing device, except for all of the following.

a. Fire doorsets to cupboards.

b. Fire doorsets to service ducts normally locked shut.

c. Fire doorsets within flats and dwellinghouses.

C6 If a self-closing device would be considered to interfere with the normal approved use of the building, self-closing fire doors may be held open by one of the following.

a. A fusible link, but not if the doorset is in an opening provided as a means of escape unless it complies with paragraph C7.

b. An automatic release mechanism activated by an automatic fire detection and alarm system.

c. A door closer delay device.

C7 Two fire doorsets may be fitted in the same opening if each door is capable of closing the opening, so the total fire resistance is the sum of their individual resistances. If the opening is provided as a means of escape, both fire doorsets should be self-closing.

If one fire doorset is capable of being easily opened by hand and has a minimum of 30 minutes' fire resistance, the other fire doorset should comply with both of the following.

a. Be fitted with an automatic self-closing device.

b. Be held open by a fusible link.

C8 Fire doorsets often do not provide any significant insulation. Unless providing both integrity and insulation in accordance with Appendix B, Table B1, a maximum of 25% of the length of a compartment wall should consist of door openings.

Where it is practicable to maintain a clear space on both sides of the doorway, the above percentage may be greater.

C9 Rolling shutters should be capable of manual opening and closing for firefighting purposes (see Section 17). Rolling shutters across a means of escape should only be released by a heat sensor, such as a fusible link or electric heat detector, in the immediate vicinity of the door.

Unless a shutter is also intended to partially descend as part of a boundary to a smoke reservoir, shutters across a means of escape should not be closed by smoke detectors or a fire alarm system.

C10 Unless shown to be satisfactory when tested as part of a fire doorset assembly, the essential components of any hinge on which a fire door is hung should be made entirely from materials that have a minimum melting point of 800°C.

C11 Except for doorsets listed in paragraph C12, all fire doorsets should be marked with one of the following fire safety signs, complying with **BS 5499-5**, as appropriate.

a. To be kept closed when not in use – mark 'Fire door keep shut'.

b. To be kept locked when not in use – mark 'Fire door keep locked shut'.

c. Held open by an automatic release mechanism or free swing device – mark 'Automatic fire door keep clear'.

C12 The following fire doorsets are not required to comply with paragraph C11.

a. Doors to and within flats and dwellinghouses.

b. Bedroom doors in 'residential (other)' (purpose group 2(b)) premises.

c. Lift entrance/landing doors.

C13 The performance of some doorsets set out in Table C1 is linked to the minimum periods of fire resistance for elements of structure given in Tables B1 and B2. Limitations on the use of uninsulated glazing in fire doorsets are given in Table B3.

C14 Recommendations for the specification, design, construction, installation and maintenance of fire doorsets constructed with non-metallic door leaves are given in **BS 8214**.

Guidance on timber fire resisting doorsets, in relation to the new European test standard, may be found in *Timber Fire Resisting Doorsets: Maintaining Performance Under the New European Test Standard* published by the Timber Research and Development Association (TRADA).

Guidance for metal doors is given in *Code of Practice for Fire Resisting Metal Doorsets* published by the Door and Shutter Manufacturers' Association (DSMA).

C15 Hardware used on fire doors can significantly affect their performance in a fire. Notwithstanding the guidance in this approved document, guidance is available in *Hardware for Fire and Escape Doors* published by the Door and Hardware Federation (DHF) and Guild of Architectural Ironmongers (GAI).

Table C1 Provisions for fire doorsets

	Position of doorset	Minimum fire resistance of doorset in terms of integrity (minutes) when tested and classified to the relevant European standard[1] or assessed following the recommendations of paragraph B1 to B5 and C1[2]
1.	**In a compartment wall separating buildings**	Same as for the wall in which the door is fitted, but a minimum of 60 minutes
2.	**In a compartment wall:**	
	a. if it separates a flat from a space in common use	30 minutes S_a[3]
	b. enclosing a protected shaft forming a stairway or an evacuation shaft wholly or partly above the adjoining ground in a building used for flats, other residential, assembly and recreation, or office purposes	30 minutes S_a[3]
	c. enclosing a protected shaft forming a stairway or an evacuation shaft not described in (b) above	Half the period of fire resistance of the wall in which it is fitted, but 30 minutes minimum and with suffix S_a[3]
	d. enclosing a protected shaft forming a lift or service shaft	Half the period of fire resistance of the wall in which it is fitted, but 30 minutes minimum
	e. not described in (a), (b), (c) or (d) above.	Same as for the wall in which it is fitted, but add S_a[3] if the door is used for progressive horizontal evacuation under the guidance to requirement B1
3.	**In a compartment floor**	Same as for the floor in which it is fitted
4.	**Forming part of the enclosures of:**	
	a. a protected stairway or evacuation shaft (except as described in item 9 or 11(b) below)	30 minutes S_a[3]
	b. a lift shaft (see paragraph 5.34b) that does not form a protected shaft in 2(b), (c) or (d) above.	30 minutes
5.	**Forming part of the enclosure of:**	
	a. a protected lobby approach (or protected corridor) to a stairway or an evacuation shaft.	30 minutes S_a[3]
	b. any other protected corridor	20 minutes S_a[3]
	c. a protected lobby approach to a lift shaft (paragraphs 5.37 to 5.39).	30 minutes S_a[3]
6.	**Giving access to an external escape route**	30 minutes
7.	**Sub-dividing:**	
	a. corridors connecting alternative exits	20 minutes S_a[3]
	b. dead-end portions of corridors from the remainder of the corridor.	20 minutes S_a[3]
8.	**Any door within a cavity barrier**	30 minutes
9.	**Any door that forms part of the enclosure to a protected entrance hall or protected landing in a flat**	20 minutes
10.	**Any door that forms part of the enclosure:**	
	a. to a place of special fire hazard	30 minutes
	b. to ancillary accommodation in care homes (see paragraph 2.44).	30 minutes

Table C1 Continued

Position of doorset	Minimum fire resistance of doorset in terms of integrity (minutes) when tested and classified to the relevant European standard[1] or assessed following the recommendations of paragraph B1 to B5 and C1[2]
11. **In a dwellinghouse:**	
a. between a dwellinghouse and a garage	30 minutes S_a[3]
b. forming part of the enclosures to a protected stairway in a single family dwellinghouse	20 minutes
c. within any fire resisting construction in a dwellinghouse not described elsewhere in this table.	20 minutes

NOTES:

1. Classified in accordance with **BS EN 13501-2**. In the European classification 'E' is the resistance to fire in terms of integrity. Products or systems cannot typically assume a European class unless they have been tested and classified accordingly.
2. When assessed as being capable of meeting a performance classification, products or systems should follow the relevant test standards to indicate their fire resistance performance in terms of integrity for a period of minutes, when following the recommendations of paragraphs B1 to B5.
3. Unless pressurisation techniques that comply with **BS EN 12101-6** are used, these doors should also be evidenced to match in performance the additional S_a classification when tested to **BS EN 1634-3**.

Appendix F: Standards referred to

British standards

Page 165 **Delete** the section on **BS 476** Fire tests on building materials and structures.

Appendix G: Documents referred to

Other documents

Association for Specialist Fire Protection (ASFP)

Page 167 **Delete** the following publication.

ASFP Blue Book British Standard version – *Fire Resisting Ductwork, Tested to BS 476 Part 24, Third Edition.*

Index

Page 170 In the index entry for **British standards, delete** the following sub-entries.

BS 476-20 to 24 Table B3

BS 476-22 Appendix C1, Table C1

BS 476-31.1 Table C1

List of Approved Documents

The following documents have been published to give guidance on how to meet the Building Regulations. You can find the date of the edition approved by the Secretary of State at www.gov.uk.

Approved Document A
Structure

Approved Document B
Fire safety
Volume 1: Dwellings

Approved Document B
Fire safety
Volume 2: Buildings other than dwellings

Approved Document C
Site preparation and resistance to contaminants and moisture

Approved Document D
Toxic substances

Approved Document E
Resistance to the passage of sound

Approved Document F
Ventilation
Volume 1: Dwellings

Approved Document F
Ventilation
Volume 2: Buildings other than dwellings

Approved Document G
Sanitation, hot water safety and water efficiency

Approved Document H
Drainage and waste disposal

Approved Document J
Combustion appliances and fuel storage systems

Approved Document K
Protection from falling, collision and impact

Approved Document L
Conservation of fuel and power
Volume 1: Dwellings

Approved Document L
Conservation of fuel and power
Volume 2: Buildings other than dwellings

Approved Document M
Access to and use of buildings
Volume 1: Dwellings

Approved Document M
Access to and use of buildings
Volume 2: Buildings other than dwellings

Approved Document O
Overheating

Approved Document P
Electrical safety – Dwellings

Approved Document Q
Security – Dwellings

Approved Document R
Infrastructure for electronic communications
Volume 1: Physical infrastructure and network connection for new dwellings

Approved Document R
Infrastructure for electronic communications
Volume 2: Physical infrastructure for high-speed electronic communications networks

Approved Document S
Infrastructure for the charging of electric vehicles

Approved Document T
Toilet accommodation

Approved Document 7
Materials and workmanship

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