

## 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**

May 2020

## 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. These amendments will be incorporated into both the online and paper versions of Approved Document B Volume 1 and Volume 2 later in the year 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 26 November 2020 for use in England. The 2019 edition will continue to apply where a building notice or an initial notice has been given to, or full plans deposited with, a local authority before 26 November 2020 and either the building work to which it relates:

- a. has started before that day; or
- b. is started before 29 January 2021.

Please note that ‘building notice’, ‘initial notice’ and ‘full plans’ have the meanings given in the Building Regulations 2010.

The changes focus on the following fire safety provisions in blocks of flats:

- a. Sprinklers:  
A reduction in the trigger height from 30m to 11m.
- b. Wayfinding signage for the fire service:  
A new recommendation for floor identification and flat indication signage within blocks of flats with storeys over 11m.

In addition a typographical error is corrected in both volumes. Purpose group number 2 is now included in reference to ‘residential’ buildings in the guidance on boundaries.

Full details of the changes are provided below.

The Building Regulations 2010  
**Approved Document B: Fire safety**  
**Volume 1 – Dwellings**  
2019 edition

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**Section 7: Compartmentation/sprinklers – flats**

**Page 59** **Replace** paragraph 7.4 with the following.

**7.4** Blocks of flats with a top storey more than 11m above ground level (see Diagram D6) should be fitted with a sprinkler system throughout the building 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.

**Section 11: Resisting fire spread from one building to another**

**Page 83** **Replace** paragraph 11.5 with the following.

**11.5** The boundary that a wall faces is the relevant boundary (Diagram 11.2). It may be one of the following.

- a. The site boundary.
- b. The centre line of a space where further development is unlikely, such as a road, railway, canal or river.
- c. An assumed notional boundary between two buildings on the same site (Diagram 11.3) where either of the following conditions is met.
  - i. One or both of the buildings are in the 'residential' or 'assembly and recreation' purpose groups (purpose group 1, 2 or 5).
  - ii. The buildings will be operated/managed by different organisations.

**Section 15: Access to buildings for firefighting personnel – flats**

**Page 105** After paragraph 15.12, **insert** the following.

**Wayfinding signage for the fire service**

- 15.13** To assist the fire service to identify each floor in a block of flats with a top storey more than 11m above ground level (see Diagram D6), floor identification signs and flat indicator signs should be provided.
- 15.14** The floor identification signs should meet all of the following conditions.
- The signs should be located on every landing of a protected stairway and every protected corridor/lobby (or open access balcony) into which a firefighting lift opens.
  - The text should be in sans serif typeface with a letter height of at least 50mm. The height of the numeral that designates the floor number should be at least 75mm.
  - The signs should be visible from the top step of a firefighting stair and, where possible, from inside a firefighting lift when the lift car doors open.
  - The signs should be mounted between 1.7m and 2m above floor level and, as far as practicable, all the signs should be mounted at the same height.
  - The text should be on a contrasting background, easily legible and readable in low level lighting conditions or when illuminated with a torch.
- 15.15** The wording used on each floor identification sign should take the form Floor X, with X designating the number of the storey, as intended for reference by residents. The floor number designations should meet all of the following conditions.
- The floor closest to the mean ground level (see Diagram D4) should be designated as either Floor 0 or Ground Floor.
  - Each floor above the ground floor should be numbered sequentially beginning with Floor 1.
  - A lower ground floor should be designated as either Floor -1 or Lower Ground Floor.
  - Each floor below the ground floor should be numbered sequentially beginning with Floor -1 or Basement 1.
- 15.16** All floor identification signs should be supplemented by flat indicator signs, which provide information relating to the flats accessed on each storey. The flat indicator signs should meet all of the following conditions.
- The signs should be sited immediately below the floor identification signs, such that the top edge of the sign is no more than 50mm below the bottom edge of the floor identification sign.
  - The wording should take the form Flats X–Y, with the lowest flat number first.
  - The text should be in sans serif typeface with a letter height of at least half that of the floor indicator sign.

- d. The wording should be supplemented by arrows when flats are in more than one direction.
- e. The text and arrows should be on a contrasting background, easily legible and readable in low level lighting conditions or when illuminated with a torch.

**NOTE:** In the case of multi-storey flats with two or more entrances, the flat number should only be indicated on the normal access storey.

**Appendix B: Performance of materials, products and structures**

**Pages 129 to 130** Replace Table B4 with the following.

Table B4 Minimum periods of fire resistance							
Purpose group of building	Minimum periods of fire resistance <sup>(1)</sup> (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 <sup>†</sup>	60 min <sup>+5</sup>	Not permitted <sup>(2)</sup>	Not permitted <sup>(2)</sup>	Not permitted <sup>(2)</sup>
– with sprinkler system <sup>(3)</sup>	90 min	60 min	30 min <sup>†</sup>	60 min <sup>+5</sup>	60 min <sup>+5</sup>	90 min <sup>+</sup>	120 min <sup>+</sup>
b. and c. Dwellinghouse	Not applicable <sup>(4)</sup>	30 min <sup>†</sup>	30 min <sup>†</sup>	60 min <sup>(5)</sup>	60 min <sup>(5)</sup>	Not applicable <sup>(4)</sup>	Not applicable <sup>(4)</sup>
2. Residential							
a. Institutional	90 min	60 min	30 min <sup>†</sup>	60 min	60 min	90 min	120 min <sup>†</sup>
b. Other residential	90 min	60 min	30 min <sup>†</sup>	60 min	60 min	90 min	120 min <sup>†</sup>
3. Office:							
– without sprinkler system	90 min	60 min	30 min <sup>†</sup>	60 min	60 min	90 min	Not permitted <sup>(6)</sup>
– with sprinkler system <sup>(3)</sup>	60 min	60 min	30 min <sup>†</sup>	30 min <sup>†</sup>	30 min <sup>†</sup>	60 min	120 min <sup>†</sup>
4. Shop and commercial:							
– without sprinkler system	90 min	60 min	60 min	60 min	60 min	90 min	Not permitted <sup>(6)</sup>
– with sprinkler system <sup>(3)</sup>	60 min	60 min	30 min <sup>†</sup>	60 min	60 min	60 min	120 min <sup>†</sup>
5. Assembly and recreation:							
– without sprinkler system	90 min	60 min	60 min	60 min	60 min	90 min	Not permitted <sup>(6)</sup>
– with sprinkler system <sup>(3)</sup>	60 min	60 min	30 min <sup>†</sup>	60 min	60 min	60 min	120 min <sup>†</sup>

**Table B4 Continued**

Purpose group of building	Minimum periods of fire resistance <sup>(1)</sup> (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
6. Industrial:							
– without sprinkler system	120 min	90 min	60 min	90 min	90 min	120 min	Not permitted <sup>(6)</sup>
– with sprinkler system <sup>(3)</sup>	90 min	60 min	30 min <sup>†</sup>	60 min	60 min	90 min	120 min <sup>‡</sup>
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 <sup>(6)</sup>
– with sprinkler system <sup>(3)</sup>	90 min	60 min	30 min <sup>†</sup>	60 min	60 min	90 min	120 min <sup>‡</sup>
b. car park for light vehicles:							
i. open sided car park <sup>(7)</sup>	Not applicable	Not applicable	15 min <sup>#</sup>	15 min <sup>†#(8)</sup>	15 min <sup>†#(8)</sup>	15 min <sup>†#(8)</sup>	60 min
ii. any other car park	90 min	60 min	30 min <sup>†</sup>	60 min	60 min	90 min	120 min <sup>‡</sup>

**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.

**Table B4 Continued**

1. Refer to note 1, Table B3 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 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  $H_p/A=230\text{m}^{-1}$  operating under full design load.
    - ii. Free-standing columns, maximum  $H_p/A=180\text{m}^{-1}$  operating under full design load.
    - iii. Wind bracing and struts, maximum  $H_p/A=210\text{m}^{-1}$  operating under full design load.
- Guidance is also available in **BS EN 1993-1-2**.

The Building Regulations 2010  
**Approved Document B: Fire safety**  
**Volume 2 – Buildings other than dwellings**  
 2019 edition

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**Section 13: Resisting fire spread from one building to another**

**Page 98** Replace paragraph 13.5 with the following.

- 13.5** The **boundary** that a wall faces is the **relevant boundary** (Diagram 13.2). It may be one of the following.
- a. The site **boundary**.
  - b. The centre line of a space where further development is unlikely, such as a road, railway, canal or river.
  - c. An assumed **notional boundary** between two **buildings** on the same site (Diagram 13.3) where either of the following conditions is met.
    - i. One or both of the **buildings** are in the ‘residential’ or ‘assembly and recreation’ **purpose groups** (**purpose group 1, 2 or 5**).
    - ii. The buildings will be operated/managed by different organisations.

**Appendix B: Performance of materials, products and structures**

**Pages 145 to 146** Replace Table B4 with the following.

**Table B4 Minimum periods of fire resistance**

Purpose group of building	Minimum periods of fire resistance <sup>(1)</sup> (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 <sup>†</sup>	60 min <sup>+5</sup>	Not permitted <sup>(2)</sup>	Not permitted <sup>(2)</sup>	Not permitted <sup>(2)</sup>
– with sprinkler system <sup>(3)</sup>	90 min	60 min	30 min <sup>†</sup>	60 min <sup>+5</sup>	60 min <sup>+5</sup>	90 min <sup>+</sup>	120 min <sup>+</sup>
b. and c. Dwellinghouse	Not applicable <sup>(4)</sup>	30 min <sup>†</sup>	30 min <sup>†</sup>	60 min <sup>(5)</sup>	60 min <sup>(5)</sup>	Not applicable <sup>(4)</sup>	Not applicable <sup>(4)</sup>



**Table B4 Continued**

Purpose group of building	Minimum periods of fire resistance <sup>(1)</sup> (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
2. Residential							
a. Institutional	90 min	60 min	30 min <sup>†</sup>	60 min	60 min	90 min	120 min <sup>‡</sup>
b. Other residential	90 min	60 min	30 min <sup>†</sup>	60 min	60 min	90 min	120 min <sup>‡</sup>
3. Office:							
– without sprinkler system	90 min	60 min	30 min <sup>†</sup>	60 min	60 min	90 min	Not permitted <sup>(6)</sup>
– with sprinkler system <sup>(3)</sup>	60 min	60 min	30 min <sup>†</sup>	30 min <sup>†</sup>	30 min <sup>†</sup>	60 min	120 min <sup>‡</sup>
4. Shop and commercial:							
– without sprinkler system	90 min	60 min	60 min	60 min	60 min	90 min	Not permitted <sup>(6)</sup>
– with sprinkler system <sup>(3)</sup>	60 min	60 min	30 min <sup>†</sup>	60 min	60 min	60 min	120 min <sup>‡</sup>
5. Assembly and recreation:							
– without sprinkler system	90 min	60 min	60 min	60 min	60 min	90 min	Not permitted <sup>(6)</sup>
– with sprinkler system <sup>(3)</sup>	60 min	60 min	30 min <sup>†</sup>	60 min	60 min	60 min	120 min <sup>‡</sup>
6. Industrial:							
– without sprinkler system	120 min	90 min	60 min	90 min	90 min	120 min	Not permitted <sup>(6)</sup>
– with sprinkler system <sup>(3)</sup>	90 min	60 min	30 min <sup>†</sup>	60 min	60 min	90 min	120 min <sup>‡</sup>
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 <sup>(6)</sup>
– with sprinkler system <sup>(3)</sup>	90 min	60 min	30 min <sup>†</sup>	60 min	60 min	90 min	120 min <sup>‡</sup>
b. car park for light vehicles:							
i. open sided car park <sup>(7)</sup>	Not applicable	Not applicable	15 min <sup>#</sup>	15 min <sup>#(8)</sup>	15 min <sup>#(8)</sup>	15 min <sup>#(8)</sup>	60 min
ii. any other car park	90 min	60 min	30 min <sup>†</sup>	60 min	60 min	90 min	120 min <sup>‡</sup>

**Table B4 Continued**

**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 B3 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  $H_p/A=230m^{-1}$  operating under full design load.

ii. Free-standing columns, maximum  $H_p/A=180m^{-1}$  operating under full design load.

iii. Wind bracing and struts, maximum  $H_p/A=210m^{-1}$  operating under full design load.

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



# List of approved documents

The following publications give practical 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](http://www.gov.uk).

## **Approved Document A**

Structure

## **Approved Document B**

Fire safety

Volume 1: Dwellings

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

## **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 L1A**

Conservation of fuel and power in new dwellings

## **Approved Document L1B**

Conservation of fuel and power in existing dwellings

## **Approved Document L2A**

Conservation of fuel and power in new buildings other than dwellings

## **Approved Document L2B**

Conservation of fuel and power in existing buildings other than dwellings

## **Approved Document M**

Access to and use of buildings

Volume 1: Dwellings

Volume 2: Buildings other than dwellings

## **Approved Document P**

Electrical safety – Dwellings

## **Approved Document Q**

Security – Dwellings

## **Approved Document R**

Physical infrastructure for high-speed electronic communications networks

## **Approved Document 7**

Materials and workmanship

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