

## Advice for building owners on assurance and replacing of flat entrance fire doors (Updated 2 August 2018)

This Advice Note is for the attention of anyone responsible for the fire safety of residential flats that are concerned about the fire and smoke resistance performance of flat entrance front doors. The note is based on latest advice from the UK Government's Independent Expert Advisory Panel on building safety, drawing on the advice of industry experts. It has been developed to support those who want to replace their fire doors or review their performance. The note has been revised to align with Scottish building legislation.

### Summary

- Flat entrance fire doors leading to a shared or communal area are required to provide fire and smoke protection and are critical to most fire strategies for buildings.
- All fire doors, including any self-closing device, should be routinely checked or inspected by a suitably qualified professional.
- Residents should be made aware of the importance of working self-closing devices on all fire doors.
- Flat entrance fire doors should have test evidence demonstrating that they meet the performance requirements in Building Regulations guidance<sup>1</sup> for fire resistance and smoke control when tested from both sides.
- Test evidence used should be carefully checked to ensure it describes the same specification of doorsets as are being installed.
- Landlords or building owners should replace flat entrance doorsets<sup>2</sup> if they suspect they do not meet the fire or smoke resistance performance in the Building Regulations guidance. Fire risk assessment processes could be used to determine how urgently such doors should be replaced.
- The Expert Panel advise that while it should not be solely relied upon<sup>3</sup> third party certification by a UKAS accredited body can provide landlords and building owners greater assurance on the performance of the doors.

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<sup>1</sup> [Building Standards Technical Handbook Domestic](#)

<sup>2</sup> A doorset is a complete door assembly, assembled on site or delivered as a completed assembly, consisting of the door frame, door leaf or leaves, essential hardware and any integral side panel or fanlight (but excluding coupled assembly, a doorset and window that are supplied as separate self-contained frames and fixed together on site)."

<sup>3</sup> The Expert Panel is aware that the UK Government is working with third party certification bodies to agree minimum standards.

## Introduction

1. Flat entrance doorsets that allow access directly into the dwelling from a shared or communal area are required to provide fire and smoke protection<sup>4</sup>. It is fundamental to most fire strategies for buildings, providing critical protection within a building to escape routes and to effective separation.

2. Doorsets are becoming increasingly complex and are designed to perform reliably in order to ensure compliance with the Building Regulations. It is therefore important that doorsets' fire resistance performance is measured and is routinely professionally assessed every 6 months<sup>5</sup>.

3. A fire door can only offer protection in limiting the spread of smoke and fire if the door seals are working effectively and if the door can fully close under the action of its door closer. The self-closing device should be capable of closing the door securely into its frame from any open position, and overcoming the resistance of the door latch and edge seals. All fire door self-closing devices should be regularly checked and maintained to ensure that they are operating correctly.

4. The guidance in the Building Standards Technical Handbook (Domestic) clarifies that flat entrance doors that allow access directly into the dwelling from a shared or communal corridor should achieve:

- at least 30 minutes fire resistance in buildings that **do not** have a storey at a height of more than 18 m above the ground,
- at least 60 minutes fire resistance in buildings that **do** have a storey at a height of more than 18 m above the ground both with additional requirements for smoke leakage<sup>6</sup>.

Prior to 1 May 2005, 30 minute fire doors were permitted to high rise domestic buildings. Where 30 minute doorsets are to be replaced in these buildings the replacement doorsets should achieve at least a 60 minute period of fire resistance.

5. This advice note primarily concentrates on fire safety; however, front doors should also meet security requirements set out in Section 4 (Safety) of the Domestic Technical Handbook<sup>7</sup>. There are also requirements for doors in other relevant Building Standards guidance included in the Domestic Building Standards Technical Handbook including Sections 4, 5 and 6. Therefore it is imperative that doors are designed to meet all of the relevant requirements in one package i.e. the same specification. The Domestic Building Standards Technical Handbook can be accessed from the Scottish Government website<sup>8</sup>

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<sup>4</sup> [Building Standards Technical Handbook Domestic](#)

<sup>5</sup> Six monthly check that fire doors are in good working order: inspect doors for warping or distortion, fire-resisting glazed panels are in good condition and secure in their frame, and that intumescent strips and smoke seals are in good condition

<sup>6</sup> <http://www.gov.scot/Resource/0052/00529527.pdf>

<sup>7</sup> <http://www.gov.scot/Resource/0052/00529527.pdf>. Standard 4.13

<sup>8</sup> <http://www.gov.scot/Resource/0052/00529527.pdf>

6. Landlords or building owners may also want to refer to the British Standard 'code of practice for fire door assemblies'<sup>9</sup>.

7. Landlords or building owners should also communicate with residents to ensure that they are aware of the importance of maintaining the self-closing devices on all fire doors, including flat entrance doors.

### **Evaluating existing doorsets and assurance of performance**

8. Landlords or building owners should refer to the manufacturer's test evidence/certification and documentation for existing or proposed fire doorsets. Any test evidence used to substantiate the fire resistance rating of a door or shutter should be carefully checked to ensure that it adequately demonstrates compliance and is applicable to the adequately complete installed assembly. Small differences in detail (such as glazing apertures, intumescent strips, door frames and ironmongery etc.) may significantly affect the rating.

9. Flat entrance fire doors should have test evidence demonstrating they meet the performance requirements in the Building Regulations guidance for fire resistance and smoke control when tested from both sides.

10. The self-closing device should be capable of closing the door securely into its frame from any open position, and overcoming the resistance of the door latch and edge seals.

11. Where additional assurance that existing or proposed fire doorsets meet the current benchmarks is desired, professional advice can be sought. Using an independent UKAS<sup>10</sup> accredited certification body whose engineers are qualified and adhere to the latest Passive Fire Protection Federation guidance<sup>11</sup> would be a good way of securing this professional advice.

### **Repair and renovation of existing doorsets**

12. Where doorsets have parts that need replacing, care should be taken to ensure replacements are of the same specification used in the original design as evidenced in the manufacturer's test evidence/certification and documentation for the doorset. Where the manufacturer or supplier is unknown, then an assessment can be carried out by a competent expert.

13. All assessments and repairs should be carried out in line with the manufacturer's instructions by a suitably qualified person or organisation that can demonstrate the appropriate levels of skill and competency. Certification under a UKAS accredited door installer scheme<sup>12</sup> would be a way of establishing those criteria.

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<sup>9</sup> BS 8412:2016 (<https://shop.bsigroup.com/ProductDetail/?pid=000000000030332501>)

<sup>10</sup> United Kingdom Accreditation Service ([www.ukas.com](http://www.ukas.com))

<sup>11</sup> [www.pfpf.org](http://www.pfpf.org)

<sup>12</sup> [www.ukas.com](http://www.ukas.com)

14. The British Standard 8214<sup>13</sup> provides recommendations for the specification, installation and maintenance of timber-based fire door assemblies.

### **Replacing flat or apartment entrance doorsets**

15. Landlords or building owners should replace flat entrance doorsets if they suspect they do not meet the fire or smoke resistance performance set out in the Building Regulations guidance<sup>14</sup>. Fire risk assessment processes could be used to determine how urgently such doors should be replaced.

16. Replacement doorsets should have test evidence from a UKAS accredited test facility, or equivalent<sup>15</sup>, to ensure they meet the standards set out in the Building Regulations guidance. Test evidence used should be carefully checked to ensure it is to the same specifications of the doorsets being installed. Small differences in detail (such as glazing apertures, intumescent strips, door frames and ironmongery etc.) may have a detrimental effect to the fire, smoke or security performance of a doorset.

17. The Expert Panel advise that doorsets which aim to meet fire resistance as well as security criteria, should be based on a single combined design specification, which is certified for fire resistance and for security. Additionally there should be test evidence for smoke control based on the same doorset design.

18. The self-closing device should be capable of closing the door securely into its frame from any open position, and overcoming the resistance of the door latch and edge seals.

19. The Expert Panel advise that third party certification<sup>16</sup> by a UKAS accredited body of manufacture, installation, maintenance, and inspection for fire, smoke and security can provide landlords and building owners greater assurance on the performance of the doors. Doorsets certificated and supplied to the same specification for fire, smoke and security performance will provide additional assurance of performance, as will certification in the name of the company producing the doorset with the doorset name listed on the certificate.

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<sup>13</sup> BS 8412:2016 (<https://shop.bsigroup.com/ProductDetail/?pid=00000000030332501>)

<sup>14</sup> Concerns with performance may be triggered by a number of factors including lack of test evidence, evidence of sub-standard performance in testing, visual damage, wear and tear, age of the door etc.

<sup>15</sup> An equivalent test facility will be accredited by a signatory of the European Accreditation Multilateral Agreement. This a signed agreement between the EA Full Members whereby the signatories recognise and accept the equivalence of the accreditation systems operated by the signing members ([www.europeanaccreditation.org/the-mla](http://www.europeanaccreditation.org/the-mla))

<sup>16</sup> UKAS accredit organisation separately for manufacture, installation, maintenance, and inspection.