

# Approved Document Q: Security

## Summary

**0.1** This approved document gives guidance on how to comply with requirement Q1 of the Building Regulations. It contains the following sections:

**Section 1:** Doors

**Section 2:** Windows

**Appendix A:** Key terms

**Appendix B:** Bespoke timber secure doorsets

**Appendix C:** Documents referred to

**Appendix D:** Standards referred to

## Application

**0.2** The guidance in this approved document applies to new dwellings only; this includes dwellings formed by a material change of use.

## Requirement Q1: Unauthorised access

This approved document deals with the following requirement from Part Q of Schedule 1 to the Building Regulations 2010.

| Requirement  |   |
|--|---|
| <i>Requirement</i>   | <i>Limits on application</i>                              |
| <b>PART Q SECURITY</b><br><b>Unauthorised access</b>   |   |
| <b>Q1</b><br>Reasonable provision must be made to resist unauthorised access to—<br>(a) any dwelling; and<br>(b) any part of a building from which access can be gained to a flat within the building. | Requirement Q1 applies only in relation to new dwellings. |

### Performance

Requirement Q1 applies to **easily accessible** doors and **windows** that provide access in any of the following circumstances:

- into a dwelling from outside
- into parts of a building containing flats from outside
- into a flat from the common parts of the building.

In the Secretary of State's view, doors and **windows** will meet requirement Q1 if they can resist physical attack by a casual or opportunist burglar by being both:

- sufficiently robust
- fitted with appropriate hardware.

## Section 1: Doors

### General

- 1.1** All **easily accessible doorsets** (including garage **doorsets** and communal entrance **doorsets**) that provide access into a dwelling or into a building containing a dwelling should be **secure doorsets** in accordance with paragraphs 1.2 to 1.4.

**NOTE:** If a garage has no interconnecting **doorset** allowing access into the dwelling, garage **doorsets** need not be **secure doorsets**. Where access to the dwelling can be gained via an interconnecting **doorset** from the garage, then either the garage **doorset** (pedestrian and vehicular) or the interconnecting **doorset** should be a **secure doorset**.

### Design of secure doorsets

- 1.2** **Secure doorsets** should be either:

- a. manufactured to a design that has been shown by test to meet the security requirements of British Standards publication PAS 24:2012, or
- b. designed and manufactured in accordance with Appendix B.

**NOTE:** **Doorsets** satisfying other standards that provide similar or better performance are also acceptable. These standards include:

- STS 201 Issue 5:2013
- LPS 1175 Issue 7:2010 security rating 2
- STS 202 Issue 3:2011 burglary rating 2
- LPS 2081 Issue 1:2015 security rating B.

Further advice is available in Secured by Design's *New Homes 2014*.

- 1.3** Letter plates, where provided, should:

- a. have a maximum aperture of 260mm x 40mm, and
- b. be located and/or designed to hinder anyone attempting to remove keys with sticks and/or insert their hand, for example by incorporating a flap or other features to restrict access.

**NOTE:** Letter plates meeting the requirements of the Door and Hardware Federation's (DHF) technical specification TS 008:2012 have been shown to protect against the attacks mentioned above.

- 1.4** The main doors for entering a dwelling (usually the front door) should have a door viewer unless other means exist to see callers, such as clear glass within the door or a **window** next to the **doorset**. The same **doorset** should also have a door chain or door limiter.

**NOTE:** In some situations a door chain or limiter is not appropriate, for example where a warden may need emergency access to residents in sheltered housing. Alternative caller-identification measures, such as electronic audio-visual door entry systems, can be used to identify visitors.

## Installation and fixing of secure doorsets

- 1.5** Frames should be mechanically fixed to the structure of the building in accordance with the manufacturer's installation instructions.
- 1.6** Lightweight framed walls should incorporate a resilient layer to reduce the risk of anyone breaking through the wall and accessing the locking system.

The resilient layer should be timber sheathing at least 9mm thick, expanded metal or a similar resilient material. The resilient layer should be to the full height of the door and 600mm either side of the **doorset**.

## Section 2: Windows

### General

- 2.1** Ground floor, basement and other **easily accessible windows** (including **easily accessible** rooflights) should be **secure windows** in accordance with paragraphs 2.2 and 2.3.

### Design of secure windows

- 2.2** **Windows** should be made to a design that has been shown by test to meet the security requirements of British Standards publication PAS 24:2012.

**NOTE:** **Windows** satisfying other standards that provide similar or better performance are also acceptable. These standards include:

- STS 204 Issue 3:2012
- LPS 1175 Issue 7:2010 security rating 1
- LPS 2081 Issue 1:2015 security rating A.

Further advice is available in Secured by Design's *New Homes 2014*.

### Installation and fixing of secure windows

- 2.3** Frames should be mechanically fixed to the structure of the building in accordance with the manufacturer's installation instructions.

## Appendix A: Key terms

### Doorset

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 assemblies**).

### Window

Windows, rooflights, roof windows and similar.

### Secure doorset

Either:

- a **doorset** that is **proven** to resist physical attack by a casual or opportunist burglar, or
- a bespoke **doorset** incorporating construction features that are **proven** to reduce crime.

### Secure window

Either:

- a **window** that is **proven** to resist criminal attack, or
- a bespoke **window** incorporating construction features that are **proven** to reduce crime.

### Easily accessible

Either:

- a **window** or doorway, any part of which is within 2m vertically of an accessible level surface such as the ground or basement level, or an access balcony, or
- a **window** within 2m vertically of a flat or sloping roof (with a pitch of less than 30°) that is within 3.5m of ground level.

### Coupled assembly

A **doorset** and **window** that are supplied as separate self-contained frames and fixed together on site.

### Proven

(In the context of **secure doorsets** and **secure windows**) – a product designed and constructed in accordance with a specification or design shown by test to be capable of meeting the required performance.

Further information on materials and workmanship is given in Approved Document 7.

**NOTE 1:** Laboratories accredited by the United Kingdom Accreditation Service (UKAS) or an equivalent European national accreditation body should have the necessary expertise to conduct the relevant tests.

**NOTE 2:** Any test evidence used to confirm the security of a construction should be carefully checked to ensure that it demonstrates compliance that is adequate and that applies to the intended use. Evidence passed from one organisation to another can become unreliable if important details are lost. Small differences in construction can significantly affect the performance of a **doorset** or **window**.

**NOTE 3:** Schemes that certify compliance with PAS 24:2012 or other standards that offer similar or better performance may be acceptable for demonstrating compliance. A list of UKAS-accredited certification bodies is given on the UKAS website. Many recognised schemes are also listed in Secured by Design's *New Homes 2014*, Section 2.

## Appendix B: Bespoke timber secure doorsets

- B.1** A timber **doorset** constructed in accordance with this appendix is considered a **secure doorset** for the purposes of requirement Q1.

**NOTE:** The information in this appendix applies to doors of up to 1000mm wide and 2000mm high. Additional measures may be necessary for larger **doorsets**.

### Material

- B.2** The **doorset** should be manufactured from solid or laminated timber with a minimum density of 600kg/m<sup>3</sup>.

### Dimensions

- B.3** Door rails, stiles and muntins should be at least 44mm thick. After rebating, frame components should retain at least 32mm of timber.
- B.4** Any panel within the **doorset** should be at least 15mm thick. The panel should be securely held in place. Beading should be mechanically fixed and glued in position.
- B.5** The smaller dimension of each panel – which can be either the width or height of the panel – should be 230mm or less.

### Locks, hinges and letter plates

- B.6** The main doors for entering a dwelling (usually the front **doorset**) should be fitted with a multipoint locking system that meets the requirements of:

- PAS 3621 (key locking on both sides), or
- PAS 8621 (non-key locking on the internal face), or
- PAS 10621 (non-key locking on the internal face, but with an external locking override facility).

If it is not practical or desirable to install a multipoint locking system, a mortice lock that conforms with one of the following standards can be fitted instead, with a surface-mounted rim lock that conforms to the same standard:

- BS 3621 (key locking both sides), or
- BS 8621 (non-key locking on the internal face), or
- BS 10621 (non-key locking on the internal face, but with an external locking override facility).

Between the locking points for the mortice lock and surface-mounted rim lock, the distance should be 400–600mm.

- B.7** The non-primary doors for entering a dwelling (for example, back door or garage interconnecting doors) should be fitted with a multipoint locking system that meets the requirements of:
- PAS 3621 (key locking on both sides), or
  - PAS 8621 (non-key locking on the internal face), or

- PAS 10621 (non-key locking on the internal face, but with an external locking override facility).

If it is not practical or desirable to install a multipoint locking system, a mortice lock that conforms with one of the following standards can be fitted instead, with two morticed bolts.

- BS 3621 (key locking both sides), or
- BS 8621 (non-key locking on the internal face), or
- BS 10621 (non-key locking on the internal door face, but with an external locking override facility).

The morticed bolts should have a minimum projection of 20mm, should be at least 100mm from the top and bottom corners of the door, and should avoid any door construction joints.

**B.8** Hinges accessible from outside should incorporate hinge bolts.

**B.9** Letter plates, where provided, should:

- a. have a maximum aperture of 260mm x 40mm, and
- b. incorporate a flap or other features designed to hinder anyone attempting to remove keys with sticks and/or insert their hand.

**NOTE:** Letter plates meeting the requirements of the Door and Hardware Federation's (DHF's) technical specification TS 008:2012 have been shown to protect against the attacks mentioned above.

## Door limitation and caller identification

**B.10** The main doors for entering a dwelling (usually the front door) should have a door viewer unless other means exist to see callers, such as clear glass within the door or a window next to the **doorset**. The same **doorset** should also have a door chain or door limiter.

**NOTE:** In some situations a door chain or limiter is not appropriate, for example where a warden may need emergency access to residents in sheltered housing. Alternative caller-identification measures such as electronic audio-visual door entry systems can be used to identify visitors.

## Glazing

**B.11** Any glazing which, if broken, would permit someone to insert their hand and release the locking device on the inside of the door should be a minimum of class P1A in accordance with BS EN 356:2000. Double- or triple-glazed units need to incorporate only one pane of class-P1A glass.



## Appendix C: Documents referred to

Secured by Design, *New Homes 2014*. ACPO, 2014.

## Appendix D: Standards referred to

### British Standards

#### **BS EN 356**

Glass in building. Security glazing. Testing and classification of resistance against manual attack [2000]

#### **BS 3621**

Thief resistant lock assembly. Key egress [2007+A2:2012]

#### **BS 8621**

Thief resistant lock assembly. Keyless egress [2007+A2:2012]

#### **BS 10621**

Thief resistant dual-mode lock assembly [2007+A2:2012]

### Publicly available specifications

#### **PAS 24**

Enhanced security performance requirements for doorsets and windows in the UK. External doorsets and windows intended to offer a level of security suitable for dwellings and other buildings exposed to comparable risk [2012]

#### **PAS 3621**

Multipoint locking assemblies. Keyed egress. Performance requirements and test methods [2011]

#### **PAS 8621**

Multipoint locking assemblies. Keyless egress. Performance requirements and test methods [2011]

**PAS 10621**

Multipoint locking assemblies. Dual mode egress. Performance requirements and test methods [2011]

**Loss Prevention Certification Board****LPS 2081: Issue 1**

Requirements and testing procedures for the LPCB approval and listing of building components, strongpoints, security enclosures and free-standing barriers offering resistance to intruders attempting to use stealth to gain entry [2015]

**LPS 1175: Issue 7**

Requirements and testing procedures for the LPCB approval and listing of intruder resistant building components, strongpoints, security enclosures and free-standing barriers [2010]

**Certisecure: Warrington Certification Limited****STS 201: Issue 5**

Enhanced security requirements for doorsets to satisfy the requirements of PAS 24 [2013]

**STS 202: Issue 3**

Requirements for burglary resistance of construction products including hinged, pivoted, folding or sliding doorsets, windows, curtain walling, security grilles, garage doors and shutters [2011]

**STS 204: Issue 3**

Enhanced security performance for windows to satisfy the requirements of PAS 24 [2012]

**Door and Hardware Federation****TS 008**

Enhanced security and general requirements for letter plate assemblies and slide through boxes [2012].