



Llywodraeth Cymru
Welsh Government

The Building Regulations 2010

Approved Document

Security - Dwellings

Q

Q1 Unauthorised Access

2018 Edition - For use in Wales

2018 edition

This approved document supports requirement Q1 of Schedule 1 to the Building Regulations 2010. It takes effect on 1 November 2018 and is for use in Wales. It does not apply to work started before 1 November 2018, or work subject to a building notice, full plans application or initial notice submitted before that date provided the work is started on site before 1 November 2019.

Contents

The Approved Documents	4
What is an Approved Document	4
The Building Regulations	6
Approved Document Q - Security	8
- Summary	8
- Application	8
Requirement Q1: Unauthorised access - Performance	9
Section 1: Doors	10
Section 2: Windows	11
Section 3: Security Lighting	12
Appendix A: Key Terms	13
Appendix B: Bespoke timber doorsets	15
Appendix C: Documents and standards referred to	17

The Approved Documents

What is an Approved Document?

Welsh Ministers have approved a series of documents that give practical guidance about how to meet the requirements of the Building Regulations 2010 for Wales. Approved documents give guidance on each of the technical parts of the regulations and on regulation 7.

Approved documents set out what, in ordinary circumstances, may be accepted as reasonable provision for compliance with the relevant requirements of the Building Regulations to which they refer. If you follow the guidance in an approved document, there will be a presumption of compliance with the requirements covered by the guidance. However, compliance is not guaranteed; for example, 'normal' guidance may not apply if the particular case is unusual in some way.

Note that there may be other ways to comply with the requirements – *there is no obligation to adopt any particular solution contained in an approved document*. If you prefer to meet a relevant requirement in some other way than described in an approved document, you should discuss this with the relevant building control body.

In addition to guidance, some approved documents include provisions that must be followed exactly, as required by regulations or where methods of test or calculation have been prescribed by Welsh Ministers.

This approved document relates only to the particular requirements of the Building Regulations that the document addresses. However, building work must also comply with any other applicable requirements of the Building Regulations.

How to use this approved document

This document uses the following conventions.

- a. Text against a **blue background** is an extract from the Building Regulations 2010 or the Building (Approved Inspectors etc.) Regulations 2010 (both as amended). These extracts set out the legal requirements of the regulations.
- b. Key terms, **printed in blue**, are defined in Appendix A.
- c. When this approved document refers to a named document, the relevant version is listed in Appendix C. However, if the issuing body has revised or updated the listed version of the document or standard, you may use the new version as guidance if it continues to address the relevant requirements of the Building Regulations.

NOTE: Standards and technical approvals may also address aspects of performance or matters that are not covered by the Building Regulations, or they may recommend higher standards than required by the Building Regulations.

Where you can get further help

If you do not understand the technical guidance or other information in this approved document or the additional detailed technical references to which it directs you, you

can seek further help through a number of routes, some of which are listed below.

- a. The Welsh Government website:
<http://gov.wales/topics/planning/buildingregs/?lang=en>
- b. *If you are the person undertaking the building work:* either from your local authority building control service or from an approved inspector
- c. *If you are registered with a competent person scheme:* from the scheme operator
- d. *If your query is highly technical:* from a specialist or an industry technical body for the relevant subject.

The Building Regulations

The following is a high level summary of the Building Regulations relevant to most types of building work. Where there is any doubt you should consult the full text of the regulations, available at www.legislation.gov.uk.

Building work

Regulation 3 of the Building Regulations 2010 defines 'building work'. Building work includes:

- a. the erection or extension of a building
- b. the provision or extension of a controlled service or fitting
- c. the material alteration of a building or a controlled service or fitting.

Regulation 4 states that building work should be carried out in such a way that, when work is complete:

- a. *For new buildings or work on a building that complied with the applicable requirements of the Building Regulations:* the building complies with all the applicable requirements of the Building Regulations.
- b. *For work on an existing building that did not comply with the applicable requirements of the Building Regulations:*
 - (i) the work itself must comply with all the applicable requirements of the Building Regulations
 - (ii) the building must be no more unsatisfactory in relation to the requirements than before the work was carried out.

Material change of use

Regulation 5 defines a 'material change of use' in which a building or part of a building that was previously used for one purpose will be used for another.

Regulation 6 sets out the particular requirements of Schedule 1 that must be met before a building can be used for a new purpose. To meet the requirements, the building may need to be upgraded in some way.

Materials and workmanship

In accordance with regulation 7, building work must be carried out in a workmanlike manner using adequate and proper materials. Guidance on materials and workmanship is given in Approved Document 7.

Energy efficiency requirements

Part 6 of the Building Regulations imposes additional specific requirements for energy efficiency.

If a building is extended or renovated, the energy efficiency of the existing building or part of it may need to be upgraded.

Notification of work

Most building work and material changes of use must be notified to a building control body (local authority or approved inspector) unless one of the following applies.

- a. It is work that can be self-certified by a registered competent person scheme installer or certified by a registered third party certifier.

- b. It is work exempted from the need to notify by regulation 12(6A) of, or Schedule 4 to, the Building Regulations 2010.

Responsibility for compliance

People who are responsible for building work (e.g. agent, designer, builder or installer) must ensure that the work complies with all applicable requirements of the Building Regulations. The building owner may also be responsible for ensuring that work complies with the Building Regulations. If building work does not comply with the Building Regulations, the building owner may be served with an enforcement notice.

Security - Dwellings

Summary

- 1.1** 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

Section 3: Security Lighting

Appendix A: Key terms

Appendix B: Bespoke Timber Doorsets

Appendix C: Documents and standards referred to

Application

- 1.2** Requirement Q1 applies only when a dwelling is erected.

The Requirements

This Approved Document deals with the following Requirement from Part Q1 of Schedule 1 to the Building Regulations 2010.

Requirement	Limits on application
Part Q Security Unauthorised access Q1 Reasonable provision must be made to deter and resist unauthorised access to- (a) any dwelling; and (b) any part of a building from which access can be gained to a flat within the building.	Requirement Q1 applies only when a dwelling is erected.

Performance

The requirement to resist unauthorised access 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 Welsh Ministers view, doors and **windows** will meet the requirement if they can resist physical attack by a casual or opportunist burglar by being both:

- sufficiently robust
- fitted with appropriate hardware

The requirement to deter unauthorised access applies to:

- entrance doors into a dwelling
- the entrance doors and communal areas of a building containing dwellings.

In the Welsh Ministers view, security lighting will meet the requirement if it can act as a deterrent against crime.

Section 1: Doors

General

- 1.1 All **doorsets** that provide access into a dwelling or into a building containing a dwelling should be **secure doorsets** in accordance with the paragraphs below. **Doorsets** include interconnecting access doors between garages or conservatories into a dwelling and communal entrance **doorsets**.

If there is no interconnecting **doorset** allowing access into the dwelling then the garage **doorset** does not need to be a **secure doorset**. Where access can be gained via an interconnecting **doorset** then either the garage **doorset** or the interconnecting **doorset** should be a **secure doorset**.

Application

- 1.2 **Secure doorsets** should be manufactured to a design that has been demonstrated by means of testing to meet the security requirements of British Standard Publication PAS 24:2016 or designed and manufactured in accordance with Appendix B.

Doorsets satisfying other standards that provide similar or better performance are also acceptable, these 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 2016

- 1.3 Letter plates, where provided, should have a maximum opening of 260mm x 40mm and 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.
- 1.4 The main doors for a dwelling (in most circumstances 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**. In this instance the **doorset** should have a chain or door limiter.
- 1.5 Frames should be mechanically fixed to the structure of the building in accordance with the manufacturer's installations instructions. 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 the paragraphs below.

Application

- 2.2 [Windows](#) should be made to a design that has been demonstrated, by means of a test, to meet the security requirements of British Standards publication PAS 24:2016.

[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 2016.

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

Section 3: Security Lighting

General

- 3.1 All elevations containing entrance doors into a dwelling or the entrance doors and communal areas of a building containing dwellings should have external security lighting.

Application

- 3.2 External security lighting on an elevation containing an entrance to a dwelling should be a photo electric cell (dusk to dawn including a switched manual override control), utilising a low energy consumption light sources with an efficacy greater than 40 Lumens per circuit.

For communal parts of flats 24 hour lighting (switched using a photoelectric cell) will be required. This will normally include the communal entrance hall, lobbies, landings, corridors and stairwells.

Further advice is available in Secured by Design's New Homes 2016.

Appendix A: Key terms

The following are key terms used in this document:

Doorset

A complete door assembly, assembled on site or delivered as a complete 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 or 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°) this 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.

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.

*Any test evidence used to confirm the security of a construction should be carefully checked to ensure that it demonstrated 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**.*

Schemes that certify compliance with PAS 24:2016 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 on Secured by Design's New Homes 2014 guide, section 2.

Appendix B: Bespoke timber doorsets

General

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

The information in this section applies to doors of up to 1000mm 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/m³.

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 on 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 a surface-mounted rim lock that conforms to the same standard:

- BS 3621 (key locking on 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).

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:

- have a maximum opening of 260mm X 40mm, and
- 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.

Door limitation and caller identification

B.10 The main doors for a dwelling (in most circumstances 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. In this instance the doorset should have a chain or door limiter.

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 and Standards

referred to

Documents

Secured by Design, Homes 2016. Police Service 2016

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 (2016).

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 1

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 (2015).