



KM81850 KM530830

SSSSP

BSI ENHANCED SECURITY OF
WINDOWS & DOORS KITEMARK

KM81850 & KM530830

SMART SYSTEM SUPPLIERS SUPPORT PACKAGE



Part 1 Approved Document Q

Overview of Document Q

Anthony Murray MEng

Smart, Technical Manager

Part 2 BSI Collaborative Certification

System Supplier Support Package

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BSI, Certification Manager

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BSI, Business Development Managers



1 Document Q When is it effective?



Document Q is effective from
1st October 2015



It does not apply if building notice, full planning application or initial notice is submitted before 1st October 2015 - provided that the work is started on site within 12 months (before 1st October 2016)

Projects with existing planning
1st October 2016

2 Document Q What does it apply to?



2.1 New Dwellings Only

Document Q applies to **New Dwellings** only this includes dwellings formed from change of use, e.g. Factory refurbished into apartments

2.2 Accessible Windows/Door Only

Ground Floor: within 2m from accessible level surface e.g. ground/basement/balcony.
Flat Roof: 2m from external 'flat roof' with pitch <30° and <3.5m from 'Ground Level'.

2.3 Providing Access into Dwelling

That provide access to 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.

3 Document Q How do I comply?



3.1 PAS 24 System

Smarts PAS24 System:
Test Report + System Manuals
Fabrication Training

3.2 Security Glazing

P1A Laminated Glass
For Doors and all 'non Locking' openable windows

3.3 Secure Letter Box!

No larger than 260x40mm
Over 400mm from thumbturn

SMARTS SSSP
SYSTEM SUPPLIER SUPPORT PACKAGE



bsi.
Enhanced Security of
Windows & Doors
KITEMARK™



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Enhanced Security of
Windows & Doors
KITEMARK™

In 2014, the Government announced its intention to deliver a radically simplified system for setting standards in the design and construction of new homes. For the first time, the security of new homes has been given serious weight and importance within Building Regulations, with the recent publication of Approved Document Q. Within the document, the Government has also recognized the BSI published industry Specification PAS 24: 2012 as the focus for the new building requirement, applicable to new build properties.

The Secretary of State has approved a series of documents that give practical guidance about how to meet the requirements of the Building Regulations 2010 for England. Approved Document Q is one of these, offering guidance as to how this might be achieved, where a product has been proven to meet the requirements of PAS 34: 2012 through physical testing.

The regulation requires:	
Requirement	Levies on application
Part Q Security Unrestricted access	
Q1 Reasonable provision must be made to restrict 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 in relation to new dwellings

* Source: Approved Document Q

When the Regulation comes in to force on 1st October 2015, building Control Officers will require evidence that designers and withdraws meet the requirements and fabricators or suppliers might be asked to supply test reports, design manuals and other supporting evidence for each project and specific product.

bsi.

...making excellence a habit.™

A more cost effective solution is, in many cases, the ISO 9000s which not only offers a competitive solution for demonstrating compliance to the legislation, it underpins a continuing commitment to produce high quality, durable products as well as providing evidence to support ownership of the Secured by Design Scheme – The Police Secured by Design.

A desktop window displaying the widely recognized iStockphoto service. The need to produce additional supporting documents for a project and product, making it simpler for Building Central Officers identify compliant products and ultimately reducing the burden on manufacturer and the installer.

When to turn here?

Historically, regulations in the new build market have worked their way into the replacement and refurbishment market. For BS 12 on clients this is a good idea, enabling them to offer products one step ahead of the game. Replacement windows and doors may, in the near future, be required to be compliant to PAS 24: 2012 through a new certification.

bsi.

(800) 575-6861
 Churnak Court
 Clay Avenue, Knoxville
 Mission, KY 40355-2999

T: (606) 295-6266
 F: (606) 295-6262
product.certification@ingress.com
ingress.com



Q

System Supplier Support Package
Enquiry Form:
www.smartsystems.co.uk/docq

[illegible]

www.bsigroup.com/windowsanddoors

Smart Collaborative Certification

Third Party Certification Application Process

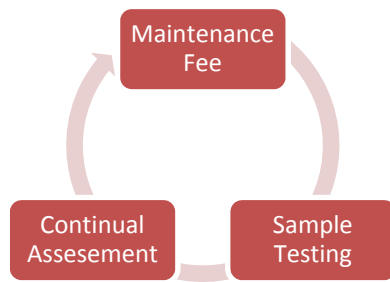


1 Express interests	Initially a fabricator expresses an interest to Smart Architectural Aluminium on obtaining Third Party Certification.	
2 Formal quotation.	The certification body produces a formal quotation. This can include a letter of intent, which may assist in contracts which require third party certification.	
3 Acceptance of Quotation.	On acceptance of quotation a draft copy of the certification can be provided with the fabricator named.	
4 Certification Application Fees.	The certification initial application fees will be invoiced on acceptance of Quotation.	£1,000 Reduced Application Fee (Normally £2,000)
5 Stage One Audit	This is implemented and assessed by Smarts to ensure that the Smart template FPC procedures are in place and highlight any potential areas for improvement prior to the Stage two assessments. Use of Smarts FPC enables a reduced fee for fabricators.	£0 No Initial Audit Fees (Normally £900)
6 Stage Two Audit	This assessment audit is undertaken by the certification body on the FPC procedures. This will be a one day audit and on completion allows product certification.	£900 Stage Two Audit Fee
N/A Initial Type Testing	Initial Type Testing is not required. Initial product performance can be based on Smarts existing scope of product certification supported by cascaded type test.	£0 No ITT Testing Fees (Normally £8,000)
7 Third Party Certification Awarded	Third Party Certification is awarded to the manufacture	£1700 Certification Decision Fees
Third Party Certification Typical Cost		£3,600 (Normally £12,500) Saving £8,900

Note: Prices and savings are indicative and subject to change based on typical 2015 book prices.

Smart Collaborative Certification

Third Party Certification Ongoing Process



A Annual Maintenance Fee **£3600 PA**
(Normally £4,200 PA)

Annual Maintenance Fee will be invoiced annual in April. Therefore the first invoice will be reduced pro rata from start of certification to the next April.

B 2 x Samples for Testing **£2,200 PA**
(Normally £4,400 PA)

Testing requirements are reduced to two samples. The Scheme requiring one window and one door system to be submitted for testing annually. Samples to be submitted within three months of being awarded initial certification. The samples alternate between weather and security aspects of testing.

C 2 x Continuing Assessment Audit. **2 x £600 PA**
(Normally 2 x £900 PA)

The continuing assessments audits are undertaken by certification body every six months. The first audit will start six months from the Initial Stage Two Audit.

**Third Party Certification
Typical ongoing cost**

£7,000 PA
(Normally £10,400 PA)
Saving £3,400

Note: Prices and savings are indicative and subject to change

Document Q
Security Dwellings



smart
architectural aluminium

Smart Technical Webinar
Building Regulations
Document Q – Security

Anthony Murray MENG

2015 edition – for use in England

Document Q
Security Dwellings

Use the links above to jump chapter

1 Document Q
What does it apply to?

2 Document Q
What does it apply to?

3 Document Q
How do I comply?



1 Document Q
When is it effective?

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Projects with existing planning
1st October 2016



2 Document Q
What does it apply to?

Requirement Q1 applies only in relation to new dwellings.

PART Q SECURITY
Unauthorised access

Q1 Reasonable provision must be made to resist unauthorised access from:

- (a) any dwelling; and
- (b) any part of a building from which access can be gained to a flat within the building.



2 Document Q
What does it apply to?

2.1 New Dwellings Only
Doc Q does not apply to existing dwellings.
Doc Q does not apply to commercial buildings.

2.2 Accessible Windows/Door Only

2.3 Providing Access into Dwelling



Cane Hill Croydon
Barratt Homes



2 Document Q
What does it apply to?

2.1 New Dwellings Only
Doc Q does not apply to existing dwellings.
Doc Q does not apply to commercial buildings.
'New Dwelling' does include dwellings formed from a material 'change of use'



Sully Hospital -> Apartments
Galliard Homes



Cadbury Keynsham -> Retirement Flats
St Monica Trust



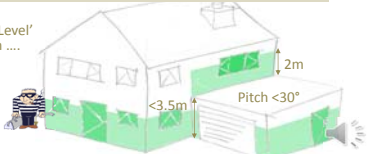
2 Document Q What does it apply to?

2.1 New Dwellings Only

'New Dwelling' includes 'change of use'.

2.2 Accessible Windows/Door Only

Ground Floor....
....within 2m from 'Ground Level'
Accessible level surface such
as the ground, basement
or an access balcony
...also 2m from a 'flat roof'
Pitch <30° and
<3.5m from 'Ground Level'



2 Document Q What does it apply to?

2.1 New Dwellings Only

2.2 Accessible Windows/Door Only

2.3 Providing Access into Dwelling

That provide access to any of the following circumstances:

- Into a dwelling from outside.
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2 Document Q What does it apply to?

2.1 New Dwellings Only

2.2 Accessible Windows/Door Only

2.3 Providing Access into Dwelling



Cadbury Keynsham -> Retirement Flats
St Monica Trust



Sully Hospital -> Apartments
Galliard Homes



2 Document Q What does it apply to?

2.1 New Dwellings Only

2.2 Accessible Windows/Door Only

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

3 Document Q How do I comply?

Requirements	Where an application
REASONABLE PROVISION Q1 Reasonable provision must be made to 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.	Document Q2 applies only in relation to new dwellings.

3 Document Q

How do I comply?

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.



PAS 24



Appendix B

3 Document Q

How do I comply?

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.




3 Document Q

How do I comply?

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.

Appendix B: Bespoke timber secure doorsets

8.1 A timber doorset constructed in accordance with this appendix is considered a secure doorset for the purpose of requirement Q2.

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

Material
8.2 The doorset should be made from solid or laminated timber with a minimum density of 600kg/m³.

Dimensions
8.3 Door rails, sills and frames should be at least 45mm thick. After removal, frame components should retain at least 30mm of timber. The panel should be securely held in place by the frame. The panel should be at least 40mm thick. The panel should be at least 40mm thick. The panel should be at least 40mm thick.

PAS 24

Enhanced Security



PAS 24

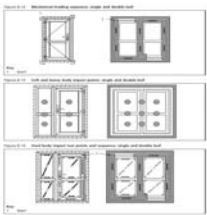
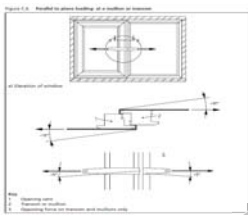
PAS 24 Enhanced Security performance requirements for doors and windows in the UK
External doorsets and windows intended to offer a level of security suitable for dwellings and other building exposed to comparable risk





PAS 24

Enhanced Security

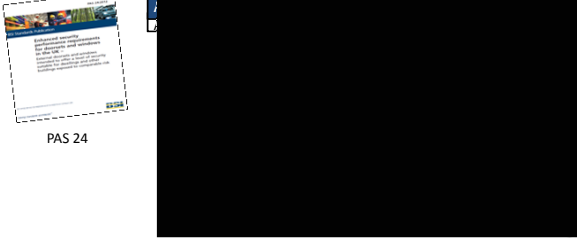
Annex A PAS 24

Security hardware and CYLINDERS

Annex A - CYLINDER
Annex A - Security hardware and Cylinder Test

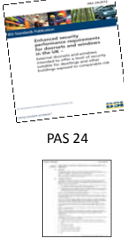



Annex
A PAS 24
Security hardware and CYLINDERS



PAS 24

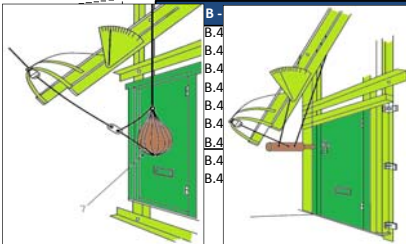
Annex
B PAS 24
Security for DOORSETS



PAS 24

Annex B - DOORS	
Annex B.4.6	Manual check test
Annex B.4.4.3	Mechanical Test on Infill
Annex B.4.3	Manipulation test
Annex B.4.4.4	Manual cutting test
Annex B.4.5	Mechanical loading test
Annex B.4.4.2	Manual test on Infill
Annex B.4.8	Soft body impact test
Annex B.4.9.2.2	Hard body impact test – door leaf
Annex B.4.9.2.3	Hard body impact test – infill medium

Annex
B PAS 24
Security for DOORSETS



B.4.1
 B.4.2
 B.4.3
 B.4.4
 B.4.5
 B.4.6
 B.4.7
 B.4.8
 B.4.9
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 B.4.11
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 B.4.100

Infill
 test
 test – door leaf
 test – infill medium

Annex
B PAS 24
Security for DOORSETS



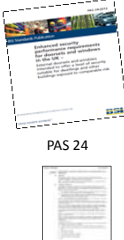
PAS 24

Annex
B PAS 24
Security for DOORSETS



PAS 24

Annex
B PAS 24
Security for DOORSETS



PAS 24

Annex B - DOORS	
Annex B.4.6	Manual check test
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Annex C PAS 24 Security for WINDOWS

Annex C - WINDOWS

Annex C.4.3	Manipulation test
Annex C.4.4.2	Infill Removal manual test
Annex C.4.4.3	Infill Removal mechanical test
Annex C.4.5	Mechanical Loading Test
Annex C.4.6	Manual Check Test
Annex C.4.7	Additional mechanical Loading Test

PAS 24

PAS 24 Enhanced Security

PAS 24 Enhanced Security performance requirements for doors and windows in the UK

External doorsets and windows intended to offer a level of security suitable for dwellings and other building exposed to comparable risk

PAS 24

3 Document Q How do I comply?

1 Document Q

2 Document Q

3 Document Q

PAS 24

3 Document Q How do I comply?

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.

PAS 24 = Security Test + Fabrication Manual

3 Document Q How do I comply?

3.1 PAS 24 System

3.2 Security Glazing

3.3 Secure Letter Box!

3 Document Q How do I comply?

3.1 PAS 24 System

Reverse Espag

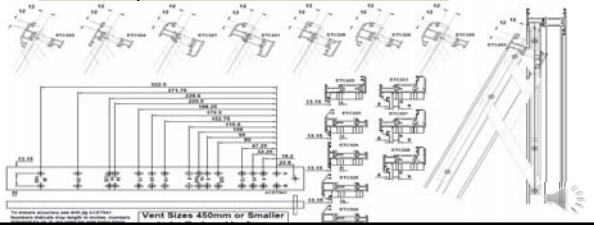
Glass Locking Clips

Run up blocks

Hinge Protectors

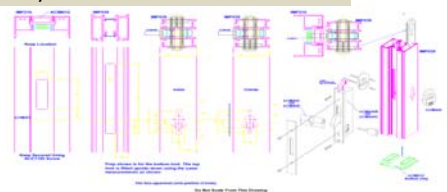
3 Document Q How do I comply?

3.1 PAS 24 System



3 Document Q How do I comply?

3.1 PAS 24 System



3 Document Q How do I comply?

3.1 PAS 24 System

Windows - PAS 24 - Security Checks

- Multipoint Locking - Reverse Espags
- Glass Locking Clips
- Run Up Blocks
- Hinge Protectors
- Correct Screws
- Drill Jigs
- Glues/gap sealers
- Pneumatic - Double Crimp?



3 Document Q How do I comply?

3.1 PAS 24 System

Windows - PAS 24 - Security Checks

- Multipoint Locking - Reverse Espags
- Glass Locking Clips
- Run Up Blocks
- Hinge Protectors
- Correct Screws
- Drill Jigs
- Glues/gap sealers
- Pneumatic - Double Crimp?



3 Document Q How do I comply?

3.1 PAS 24 System

3.2 Security Glazing

3.3 Secure Letter Box!

3 Document Q How do I comply?

3.2 Security Glazing P1A

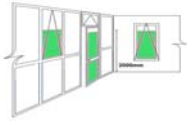


Toughened glass is not Security Glass!



3 Document Q How do I comply?

3.2 Security Glazing P1A



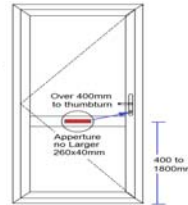
Security Requirement
Accessible Glazing
P1A Laminated
(min 6.8mm laminated)

Where doorsets contain glass, each glazed area shall include at least one pane of laminated glass meeting the requirements of BS EN 356:2000, Class P1A, and be glazed in accordance with BS 6262.

Where windows contain glass **and** non key unlocking hardware, each glazed area shall include at least one pane of laminated glass meeting the requirements of BS EN 356:2000, Class P1A, and be glazed in accordance with BS 6262.

3 Document Q How do I comply?

3.3 Secure Letter Box!

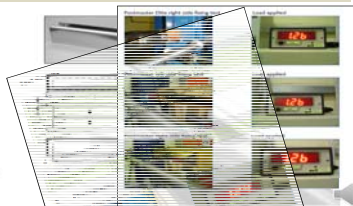
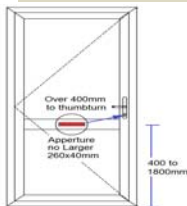


REQUIREMENTS
All letterboxes must be:
Constructed from metal
Approved by the British Standard Institution (BSI)
Approved by the British Standard Institution (BSI)
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3 Document Q How do I comply?

3.3 Secure Letter Box!



3 Document Q How do I comply?

3.1 PAS 24 System

Smarts PAS24 System:
Test Report + System Manuals
Fabrication Training

3.2 Security Glazing

P1A Laminated Glass
For Doors and all 'non Locking' openable windows

3.3 Secure Letter Box!

No larger than 260x40mm
Over 400mm from thumbturn

Document Q Summary Document Q Enhanced Security



1st October 2015



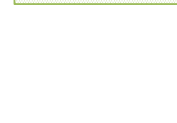
2.1 New Dwellings
2.2 Accessible
2.3 Providing Access



3.1 PAS 24 System
3.2 Security Glazing
3.3 Secure Letter Box

'Cascading' certification

Document Q Summary Document Q Enhanced Security





...making excellence a habit.™

System Supplier Support Package - SSSP

David Lilley



BSI, a Royal Charter
Company



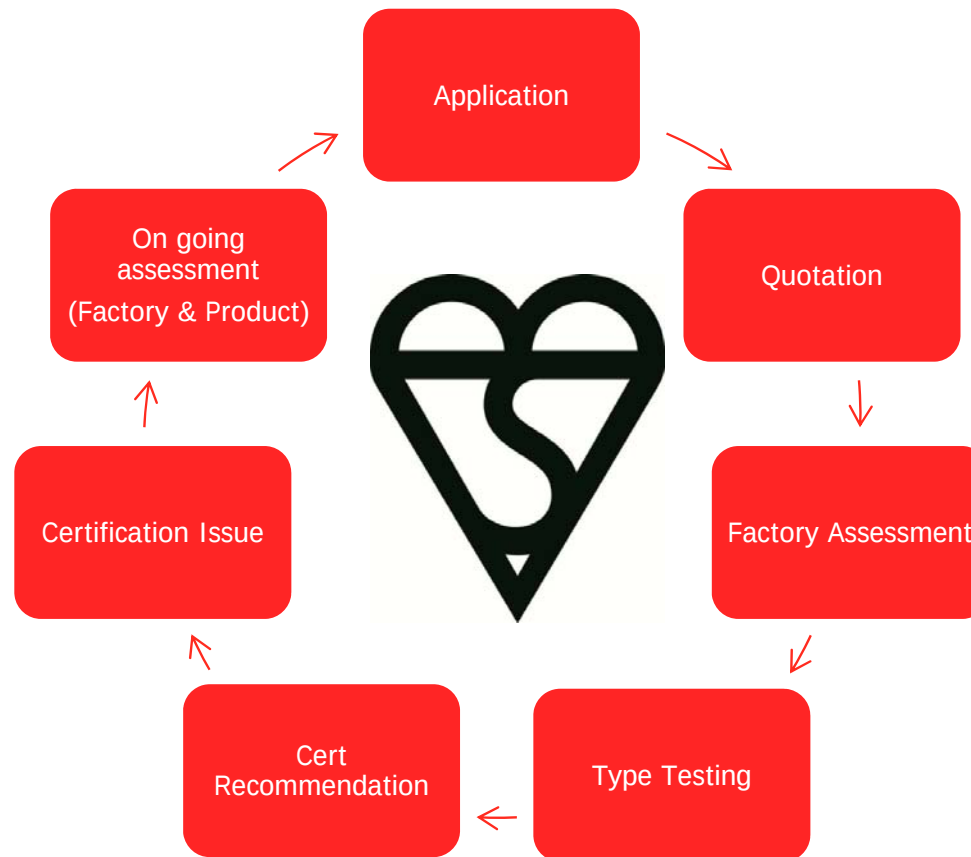
System Supplier Support Package– SSSP

- Based on following the fabrication manual and using all approved hardware - prices will allow the suite of certified products to be added to a fabricators scope.
- **Each element is invoiced separately as and when completed** (subject to credit terms).
- Alternate between weather for window and enhanced security for doors year 1 and weather for doors and enhanced security for windows year 2.

Support Programme Application

- You must use the System Suppliers Factory Production control document, this is the lynch pin as this is the only document that is being audited across all the fabricators that are part of the System Suppliers Support Programme. This means that whenever this is audited, not only is the individual fabricator notified of any non conformities, so is the system supplier which enables them to improve the master document and roll out the changes across the network of their fabricators. If you already have your own quality plan and factory production control/manual would you be prepared to move over to the Generic model?
- You can only fabricate products from that System supplier, if you have additional pvc/aluminium systems on your existing Kitemark or if you want to add additional systems then you will need to use your own Quality system and will fall into the standard Kitemark offering for visits, testing and annual licence fees.
- You can only fabricate the products using the already approved System supplier hardware, if you change hardware then you will also need to move away from this controlled offering.

BSI Kitemark- route to certification



BSI Kitemark- benefits to you

- Confidence in the products you are supplying to market
- Confidence in the process by which they are made
- Support of a third party with observations for continuous improvement
- Support of Smart with an approved Factory Production Control process
- Knowledge you can supply a range of Kitemarked products to any client for any purpose



Benefits of BSI Kitemark to our clients

- Differentiate products and services from the competition
- Gain access to new markets where Kitemark is specified or reassurance required
- Win new business by providing proof of consistent quality to specifiers and consumers
- Command price premiums due to increased consumer confidence in quality
- Reduce risk and provide evidence of due diligence
- Maintain quality and reduce waste
- Improve customer satisfaction

What supports this?



67%

of consumers
have awareness
of BSI Kitemark



BSI Kitemark
could command
price premiums
up to

26%



60%

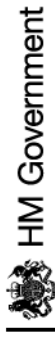
of consumers **willing
to pay more** for a
product displaying a
BSI Kitemark



...making excellence a habit.[™]



BSI, a Royal Charter
Company



The Building Regulations 2010

Security – Dwellings

APPROVED DOCUMENT



Q1 Unauthorised access

The 2015 Edition

This approved document supports requirement Q1 of Schedule 1 to the Building Regulations 2010. It takes effect on 1 October 2015 for use in England*. It does not apply to work started before 1 October 2015, 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 October 2016.

* This approved document gives guidance for compliance with the Building Regulations for building work carried out in England. It also applies to building work carried out on exempted energy buildings in Wales as defined in the Welsh Ministers (Transfer of Functions) (No.2) Order 2009.

2015 edition – for use in England*

The approved documents

What is an approved document?

The Secretary of State has approved a series of documents that give practical guidance about how to meet the requirements of the Building Regulations 2010 for England. Approved documents give guidance on each of the technical parts of the regulations and on regulation 7 (see the back of this document).

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 the Secretary of State.

Each 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.

- Text against a green 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.
- Key terms, printed in green, are defined in Appendix A.
- When this approved document refers to a named standard or other document, the relevant version is listed in Appendix C (documents) or Appendix C (standards). However, if the issuing body has revised or updated the listed version of the standard or document, 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.

- The Government website: www.gov.uk
- If you are the person undertaking the building work: either from your local authority building control service or from an approved inspector
- If you are registered with a competent person scheme: from the scheme operator
- 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 defines 'building work'. Building work includes:

- the erection or extension of a building
- the provision or extension of a controlled service or fitting
- 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:

- For new buildings or work on a building that complied with the applicable requirements of the Building Regulations:* the building complies with the applicable requirements of the Building Regulations.
- For work on an existing building that did not comply with the applicable requirements of the Building Regulations:*
 - the work itself must comply with the applicable requirements of the Building Regulations
 - 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.

The Building Regulations set out requirements 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. The requirements of Part Q apply to a material change of use, but where only part of a building is subject to building work, only that part of the building need meet the requirements of Part Q.

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 unless one of the following applies.

- It is work that will be self-certified by a registered competent person or certified by a registered third party.
- It is work exempted from the need to notify by regulation 12(6A) of, or Schedule 4 to, the Building Regulations.

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.



Contents

The approved documents	page i
The Building Regulations	iii
Approved Document Q: Security	1
Summary	1
Application	1
Requirement Q1: Unauthorised access	2
Performance	2
Section 1: Doors	3
General	3
Design of secure doorsets	3
Installation and fixing of secure doorsets	4
Section 2: Windows	5
General	5
Design of secure windows	5
Installation and fixing of secure windows	5
Appendix A: Key terms	6
Appendix B: Bespoke timber secure doorsets	7
Appendix C: Documents referred to	9
Appendix D: Standards referred to	9

Approved Document Q: Security

Requirement Q1: Unauthorised access

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.

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

Requirement	Limits on application
Requirement	
PART Q SECURITY	
Unauthorised access	
Q1	Requirement Q1 applies only in relation to new dwellings.
Reasonable provision must be made to 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.	

Performance

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

- a. into a dwelling from outside
 - b. into parts of a building containing flats from outside
 - c. 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:
- a. sufficiently robust
 - b. 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:

- manufactured to a design that has been shown by test to meet the security requirements of British Standards publication PAS 24:2012, or
- 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:

- have a maximum aperture 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.

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/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 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:

- have a maximum aperture of 260mm x 40mm, and
- 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].

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 M Access to and use of buildings
Approved Document B Fire safety	Volume 1: Dwellings
Volume 1: Dwellings	Volume 2: Buildings other than dwellings
Volume 2: Buildings other than dwellinghouses	Approved Document P Electrical safety – Dwellings
Approved Document C Site preparation and resistance to contaminants and moisture	Approved Document Q Security – Dwellings
Approved Document D Toxic substances	Approved Document 7 Materials and workmanship
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	

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