



Building Regulations:

Part Q

Security Regulations for accessible windows and doors in new homes

What is Part Q?

Following the Housing Standards Review, from 1st October 2015 the building regulations for England were amended to introduce new requirements for security standards, through the introduction of "Part Q" of the Building Regulations. For the woodworking sector, this introduced new requirements for the security rating of doors and windows in new build homes (including new homes created by a change of use such as a barn conversion).

Note this does not apply to replacement windows and doorsets.

The new requirement was introduced in [England by Statutory Instrument 2015 No. 767 The Building Regulations &c. \(Amendment\) Regulations 2015](#)

"Requirement Q1" refers specifically to Part Q of Schedule 1 of the Building Regulations, which states:

- 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.

How do these changes affect the products I manufacture?

Issued to support compliance with the Regulation, "Approved document Q" contains guidance which recommends an enhanced level of security to be achieved by doors (including vehicular garage doors) and windows fitted into new dwellings. One of the crucial elements is that doors and windows should, **as a minimum**, be of a design successfully tested to PAS 24. It was recognised that products meeting the requirements of the Secured by Design Scheme would meet the recommendations.

From when does Part Q Apply?

Requirement Q1 came into effect on 1 October 2015. It does not apply to building work started before 1 October 2015 or building work subject to an application for building regulations approval made either:

- a) directly with the Local Authority Building Control department as either a building notice or full plans application, or
- b) via an Approved Inspector as an initial notice

where these have been submitted before the 1st October 2015 provided the work is started on site before 1 October 2016.

How does this impact other parts of the UK?

Scotland

Security has been a requirement of the Scottish Building Regulations for some time and is covered by Standard 4.13.

Every building must be designed and constructed in such a way that doors and windows, vulnerable to unlawful entry, can be secured to deter housebreaking and protect the safety and welfare of occupants.

- a) by meeting the recommendations for physical security in Section 2 of 'Secured by Design' (ACPO, 2009)<http://www.securedbydesign.com/>, or
- b) by use of doorsets and windows which are tested and certified by a notified body as meeting a recognised standard for security, or
- c) by use of doorsets and windows manufactured to meet recognised product standards and defined component performance.

Wales

The Welsh Government is currently consulting on the introduction of Requirement Q1 into the Welsh Building Regulations. The draft guidance, the proposed Welsh Approved Document Q, provides the same guidance as the English Approved Document Q regarding secure doors and windows. However, there is new guidance in relation to lighting which isn't covered in the English guidance.

The draft can be found here:

<http://gov.wales/docs/desh/consultation/160301draft-approved-document-q-en.pdf>

The full consultation documents can be found here:

<http://gov.wales/consultations/planning/building-regulations-sustainability-review/?lang=en>

NB: This consultation closes on the 24/05/16.

Northern Ireland

There is currently no specific requirements for security in the building regulations for Northern Ireland nor is there (at the time of writing) a consultation on the subject.

To what type of building work does requirement Q1 apply?

Requirement Q1 applies to newly constructed dwellings and covers “easily accessible doors and windows” which provide access into;

- a) A dwelling from outside
- b) Parts of a building containing flats from outside
- c) A flat from the common parts of the building.

An easily accessible door or windows is;

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

It is possible that at times Building Control Inspectors may apply their judgement to which doorsets and windows will be considered vulnerable.

If a garage has an interconnecting doorset allowing access into the dwelling then either the garage doorset or the interconnecting doorset should be a secure doorset. If the garage does not have an interconnecting doorset then the garage doorset does not need to be a secure doorset.

It is vital to remember when supplying a flat entrance door, security and fire requirements must be complementary and the scope for fire performance must not be compromised in any way (e.g. fitting a lock which is not supported by fire test evidence).

What would be ‘deemed to satisfy’ Requirement Q1

Approved Document Q sets out what, in ordinary circumstances, may be accepted as reasonable provision for compliance with requirement Q1. If you follow the guidance in Approved Document Q there will generally be a presumption of compliance with this requirement.

As with all Building Regulations, however, there is no obligation to adopt any particular solution contained in an Approved Document (these are provided as guidance only and ultimately the Building Inspector will be the arbitrator of whether a project meets the requirements of the Regulation).

If you assert that you meet requirement Q1 in some other way then you should discuss this with the relevant building control body.

There are various ways in which a product can be considered a secure doorset or window for the purposes of requirement Q1:

- a) manufactured to a design that has been shown by test to meet the security requirements of PAS 24:2012, or
- b) designed and manufactured in accordance with the matrix shown below
- c) the doorset or window meets the requirement of other standards providing similar or better levels of performance to PAS 24:2012.

For example:

- I. STS¹ 201 issue 5:2003 for doors
- II. STS 202 Issue 3:2011 burglary rating 2 for doors
- III. STS 204 issue3:2012 for windows
- IV. LPS² 1175 issue 7:2010 security rating 2 for doors or 1 for windows
- V. LPS 2081 issue 1:2015 security rating B for doors or A for windows

If a doorset is to have a letter plate fitted then this 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 e.g. by incorporating a flap or other feature to restrict access.

The main door into a dwelling should have a door viewer or other means to see callers, such as clear glass either in the door or adjacent window, and be fitted with a door chain or door limiter.

What tests need to be undertaken?

Secure doorsets tested to PAS 24:2012 need to pass the tests shown in Annex A and Annex B of this document, or achieve level RC3 of EN 1627.

Secure windows tested to PAS 24:2012 need to pass the tests shown in Annex C of this document, or achieve level RC2N of EN 1627.

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. (see list of accredited laboratories below). However, it is not necessary to use a UKAS accredited laboratory as long as the testing undertaken can be shown to be fully in accordance with PAS 24:2012.

Any test evidence used to confirm the security of a doorset or window should be carefully checked to ensure that it demonstrates compliance that is adequate and that applies to the intended use.

¹ STS – Warrington Certification Security Technical Specification

² LPS – Loss Prevention Certification Board / BRE Global

PAS 24 testing, both UKAS accredited and otherwise, may be accessible through your suppliers. The following table shows organisations accredited by UKAS to undertake PAS 24 testing

Name of organisation	UKAS accreditation number	Contact telephone number
ERA Products Limited	4052	01922 490042
Fullex Locks Ltd (Testing Services)	2259	01384 401312
Winkhaus (UK) Ltd	1989	01536 316006
Wintech Engineering Limited	2223	01952 586580
BSI Assurance UK Limited	0135	01908 814707
ASSA ABLOY	2526	01902 364600
Exova (UK) Ltd trading as Exova Warrington Fire and Exova (previously Chiltern International Fire Limited trading as BM TRADA)	1762	01494 569655
British Board of Agreement	0357	01923 665350
Exova (UK) Ltd trading as Exova Warringtonfire	0621	01902 722122
BRE GLOBAL LIMITED Incorporating LPC Testing, BRE Testing	0578	01923 665114

Is it possible to rely on cascaded test evidence?

Test evidence can be shared between organisations or cascaded (passed down) from one organisation to another. For example a number of ironmongery companies, tooling manufacturers, system suppliers and material suppliers are making test evidence available to their customers. Companies should consult their suppliers to see what evidence is available to use (and/or if they have any test resources or are able to share laboratory time and cost with you).

Care should be taken to ensure that evidence passed from one organisation to another applies to the product being manufactured and remains reliable (i.e. the product manufactured follows precisely any design requirements laid out in the scope of the test evidence). It is vital to remember that small differences in construction can affect the performance of a doorset or window.

Schemes that certify compliance with PAS 24:2012 or other standards that offer similar or better performance may be acceptable for demonstrating compliance (if you are currently supplying certificated product, it is recommended that you confirm details with your certification body).

Are there any prescriptive standards that I can rely on?

To allow for bespoke products and recognising the prohibitive cost of testing when supplying very limited numbers of frames, Approved Document Q contains an appendix giving prescriptive guidance for bespoke doorsets. This information is shown in the table below.

In consultation with the regulators, BWF has developed a complementary guidance for windows, which is also shown in the table, and which has been incorporated into the Secured By Design New Homes Guidance 2016. It should be noted that bespoke is a slightly misleading term to be used here as any product that meets the guidance given in the table could be deemed to satisfy requirement Q1.

Clause in AD Q	This information is taken from Approved Document Q Appendix B	This information is taken from Secured By Design New Homes Guidance 2016	Notes
B1	<p>The information in this appendix applies to doors of up to 1000mm wide and 2000mm high.</p> <p>Additional measures may be necessary for larger doorsets.</p>	<p>These rules apply to</p> <p>casement windows Maximum mullion length 1350mm Maximum transom length 1200mm Maximum side-hung casement (hinged and fully reversible, open-out 700mm wide by 1350 mm high Maximum top-hung casement (hinged and fully reversible) 1200mm wide x 1200mm high Maximum tilt and turn casement, open-in, 900mm wide x 1350 high</p> <p>Vertical sliding sash Maximum mullion length 1500mm Maximum transom length 900mm Maximum sash size, 750mm high x 900mm wide</p>	<p>All casement dimensions are limited by the hinge systems size and load bearing capabilities.</p> <p>All sash dimensions are limited by the capability of the supporting balances (inc. weights and pullies)</p>
B.2 Material	The doorset should be manufactured from solid or laminated timber with a minimum density of 600kg/m ³ .	The window should be manufactured from solid or laminated timber with a minimum density of 600kg/m ³	A density of 600kg/m ³ eliminates most (perhaps all) softwoods
B.3 Dimensions	<p>rails, stiles and muntins should be at least 44mm thick.</p> <p>After rebating, frame components should retain at least 32mm of timber.</p>	<p>For casement windows all frame components (head, sill, jamb, transom and mullion) are to be a minimum of 67mm deep and 56mm wide, rebated and moulded to retain a minimum section of 25mm</p> <p>Casement and sash components (stiles and rails) should have a minimum of 56mm deep and 56mm deep rebated and moulded to retain a minimum section of 25mm.</p>	<p>Appendix B for doorsets does not take into consideration any grooving or moulding that would reduce the effective component section.</p> <p>In testing, windows are expected to resist a lesser load than doorsets and so a smaller section is appropriate</p>
B.4	<p>Any panel within the doorset should be at least 15mm thick.</p> <p>The panel should be securely held in place.</p> <p>Beading should be mechanically fixed and glued in position.</p>	N/A	Windows are generally not fitted with panels
B.5	The smaller dimension of each panel — which can be either the width or height of the panel — should be 230mm or less.	N/A	See above

<p>B.6 Locks, hinges and letter plates</p>	<p>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).</p> <p>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).</p> <p>Between the locking points for the mortice lock and surface-mounted rim lock, the distance should be 400-600mm.</p>	<p>Casement windows should be fitted with multi-point locks (espagnolette or shoot-bolt)</p> <p>There should be locking points no more than 100mm from the corner of the casement.</p> <p>Vertical sliding sash windows should be securely retained in the frame by the face lining, parting bead and staff bead. For tilting windows, the pivots and top retaining bolts should be enhanced to resist increased loads.</p> <p>Sash fasteners (fitch catches) should be enhanced to resist increased loads.</p>	<p>Hardware that contributes to the enhanced security performance of the window should have been incorporated into a window that has been successfully tested to PAS 24 (or BS 7950)</p>
<p>B.7</p>	<p>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:</p> <p>PAS 3621 (key locking on both sides), or</p> <p>PAS 8621 (non-key locking on the internal face), or</p> <p>PAS 10621 (non-key locking on the internal face, but with an external locking override facility).</p> <p>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.</p>	<p>See B.6</p>	<p>Only accessible windows are affected by requirement Q1 and all "secure windows" will be fitted with the same type of lock. Therefore, a second lock description is not required.</p>

	<p>BS 3621 (key locking both sides), or</p> <p>BS 8621 (non-key locking on the internal face), or</p> <p>BS 10621 (non-key locking on the internal door face, but with an external locking override facility).</p> <p>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.</p>		
B.8	Hinges accessible from outside should incorporate hinge bolts.	Hinges, pivots etc may require additional support by hinge bolts, hook plates etc. The use of additional support (or not) should be in accordance with the use of the hinge type in a successful PAS 24 test.	See above
B.9	<p>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.</p> <p>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.</p>	N/A	Letter plates are generally not fitted to windows
B.10 Door limitation and caller identification	<p>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.</p> <p>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.</p>		

B.11 Glazing	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 ³ in accordance with BS EN 356:2000. Double- or triple-glazed units need to incorporate only one pane of class-P1A glass which can be in any position.	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 which can be in any position.	There is no stated requirement for the securing of the glazing in appendix B.
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How will this Regulation be policed?

As with all Building Regulations, this will be policed by the Building Control Inspector (either an Approved or Public Sector Building Inspector). Where a full plans application is submitted, many potential pitfalls should be ironed out from the outset, there will potentially be higher risk if supplying into a project where a building notice has been used as the inspector may not address these elements until post installation.

How can I find out more?

BWF members have been briefed on these changes since the consultation opened in 2014, with extensive coverage in the newsletter, technical updates, meetings, a webinar and also a workshop run by representatives of the Department of Communities and Local Government at Members Day 2015 in April. Further information is available on the BWF website. Should you have any questions or comments, members can call the BWF technical helpline on 0844 209 2610.

Note: Whilst every effort has been made to ensure the accuracy of advice given, the BWF cannot accept liability for loss or damage arising from the use of the information supplied in this publication.

³ P1A rated glass is glass that has been tested and classified in accordance with BS EN 356:2000, Glass in building. Security glazing. Testing and classification of resistance against manual attack

Annex A, Security Hardware and cylinder test and assessment

A.3.2 Part 1 "cylinder protection attack"

A.3.2 Part 1(i) attack any item protecting the cylinder or lock

A.3.2 Part 1 (ii) attempt to break and defeat any cylinder

A.3.2 Part 1(iii) attempt to defeat the lock and gain entry by operating any accessible mechanism.

A.3.3 Part 2 "cylinder screw attack"

A.3.3 Part 2 (iv) attack any item protecting the cylinder

A.3.3 Part 2 (v) attempt to screw the self-cutting traction screw into any exposed part of the cylinder

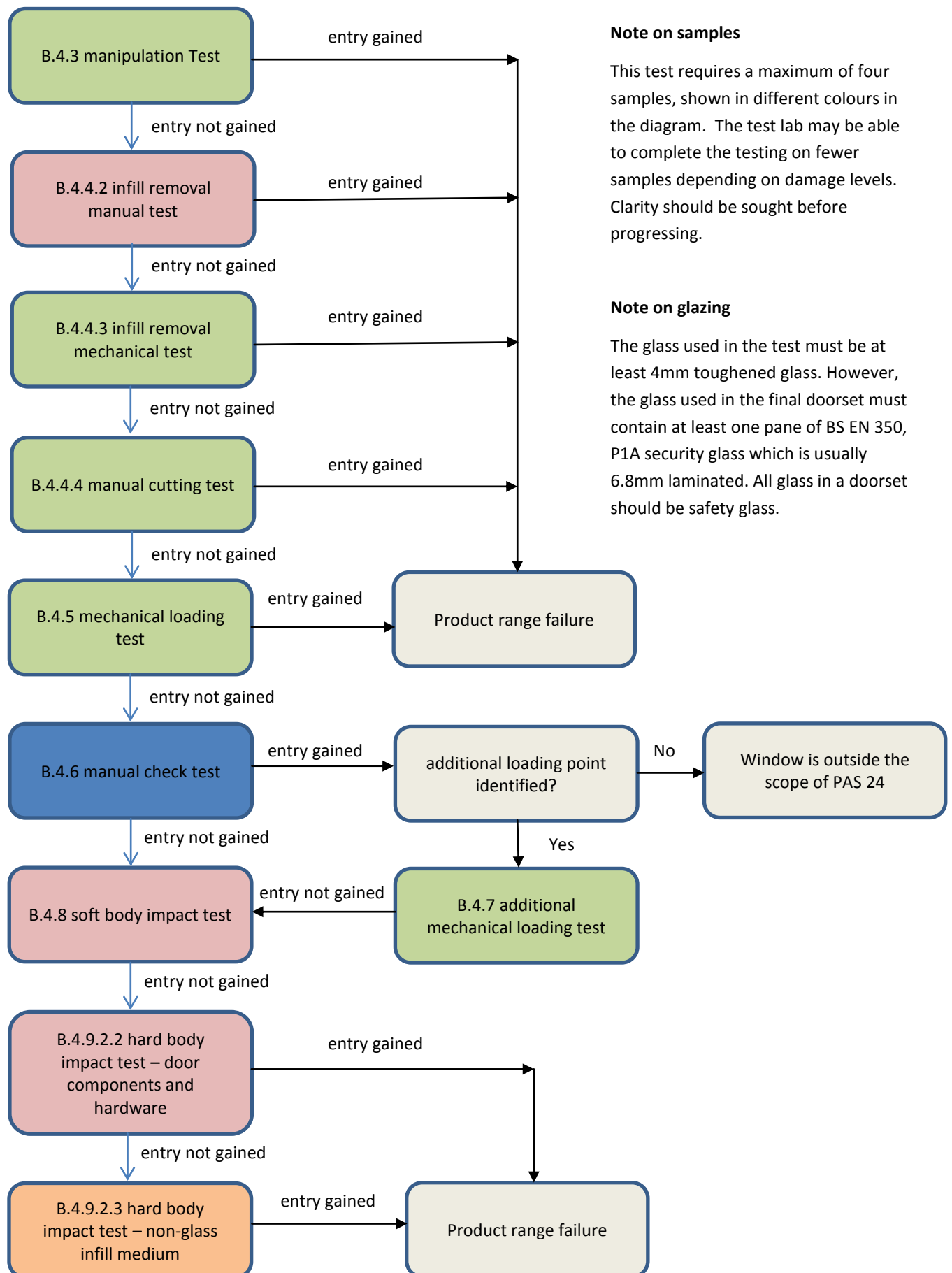
A.3.3 Part 2 (vi) attempt to break and defeat the cylinder by applying an axial force to the screw

A.3.2 Part 2 (vii) if access to the internal workings of the hardware, cylinder or lock is gained then attempt to defeat the lock and gain entry by operating any accessible mechanism.

A.4 Cylinder vulnerability assessment

A.3.2 Part 3. The cylinder is assessed for vulnerability by three expert locksmiths.

Annex B, Doorset testing to PAS 24



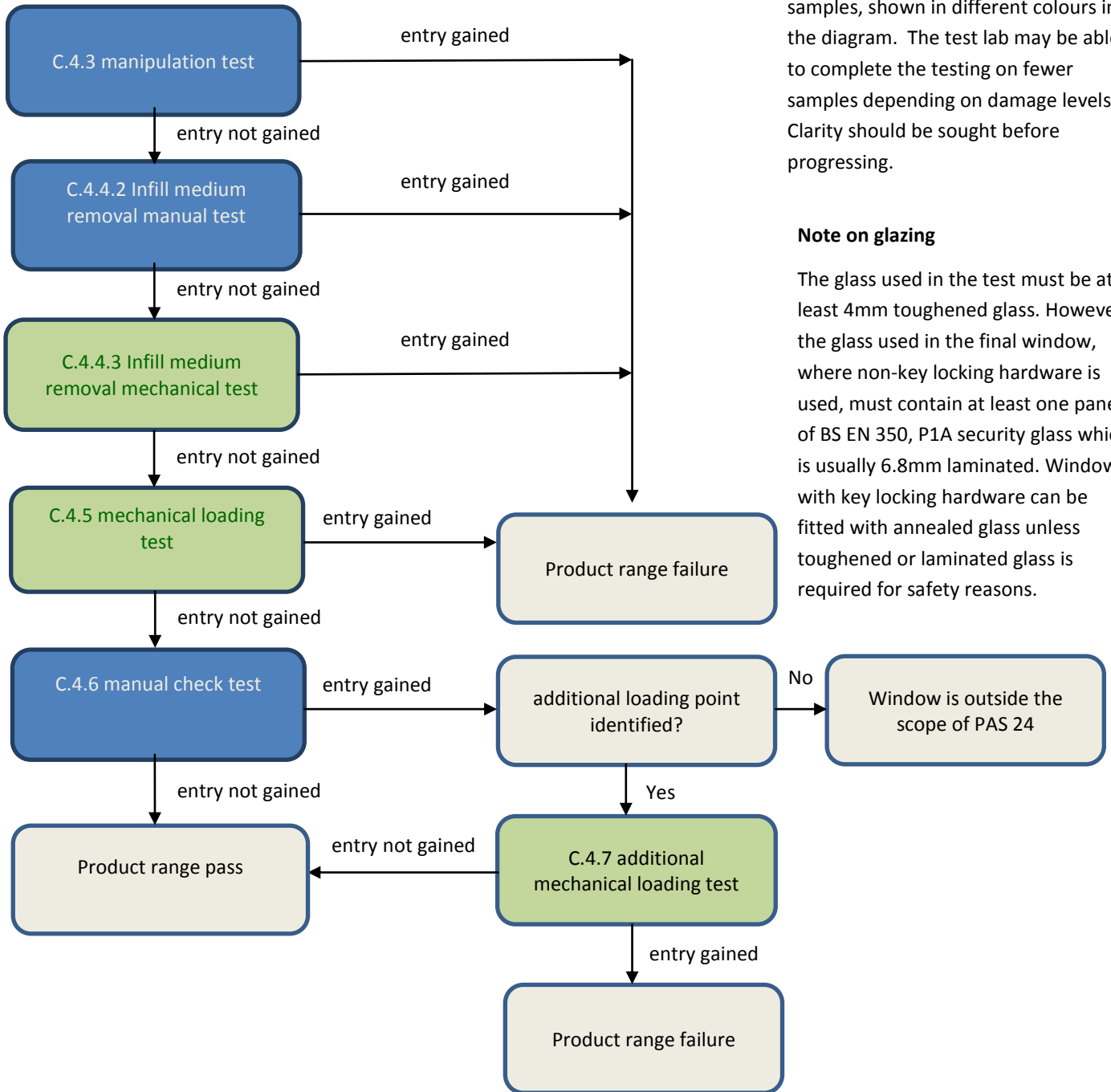
Note on samples

This test requires a maximum of four samples, shown in different colours in the diagram. The test lab may be able to complete the testing on fewer samples depending on damage levels. Clarity should be sought before progressing.

Note on glazing

The glass used in the test must be at least 4mm toughened glass. However, the glass used in the final doorset must contain at least one pane of BS EN 350, P1A security glass which is usually 6.8mm laminated. All glass in a doorset should be safety glass.

Annex C, Window testing to PAS 24



Note on samples

This test requires a maximum of two samples, shown in different colours in the diagram. The test lab may be able to complete the testing on fewer samples depending on damage levels. Clarity should be sought before progressing.

Note on glazing

The glass used in the test must be at least 4mm toughened glass. However, the glass used in the final window, where non-key locking hardware is used, must contain at least one pane of BS EN 350, P1A security glass which is usually 6.8mm laminated. Windows with key locking hardware can be fitted with annealed glass unless toughened or laminated glass is required for safety reasons.

The British Woodworking Federation (BWF) is a business support organisation. We offer advice, support and wood industry information to our 700 members as well as guidance for customers who use, or specify, our members' products and services. We also provide voice for the sector in the UK, influencing policy, regulations and standards.