

GGF Datasheet: A Guide to Building Regulations for Dwellings - England & Wales

9.1a 2020

Contents

- 1.0 Introduction to the Building Regulations
- 2.0 Scope
- 3.0 Approved Document (AD) B: Fire Safety
- 4.0 AD C: Site preparation and resistance to moisture
- 5.0 AD F: Ventilation
- 6.0 AD K: Protection from falling, collision and impact
- 7.0 AD L: Conservation of fuel and power
- 8.0 AD M: Access to and use of buildings
- 9.0 AD N: Glazing – safety in relation to impact, opening and cleaning
- 10.0 AD Q: Security
- 11.0 AD Regulation 7: Materials and workmanship
- 1.0 Introduction to the Building Regulations

Building regulations in England and Wales are statutory regulations that seek to ensure that the policies set out in the relevant legislation are carried out. Building regulations approval is required for most building work in the UK. Building regulations that apply across England and Wales are set out in the Building Act 1984. The Act permits detailed regulations to be made by the Secretary of State. The regulations made under the Act have been periodically updated, rewritten or consolidated, with the latest and current version being the Building Regulations 2010. The UK Government (at Westminster) is responsible for the relevant legislation and administration in England, the Welsh Government (at Cardiff) is the responsible body in Wales.

The detailed requirements of Building regulations in England (and Wales) are scheduled within 16 separate headings, each designated by a letter, Part A to Part Q.

Newer versions of Building Regulations are generally not

retrospective, they are applied to each new change or modification to a building (or new part of a building) but do not require renovation of existing elements. There are general requirements for any change or improvement, that the building must not be left any less satisfactory in compliance than before the works were carried out. Where windows and doors are to be replaced (but not repaired only) the replacement work should comply with the requirements of Parts L1B and K4 in England and Parts L1B and N1 in Wales.

Any differences between the Approved Documents in England and [the Approved Documents in Wales are highlighted in Blue](#).

2.0 Scope

This document is intended to offer guidance on the use of the Building Regulations that impact the design, fabrication and installation of windows and doors. It applies to window and doors manufactured from all materials.

3.0 Approved Document B Volume 1 dwellings: Fire safety

3.1 Introduction

The latest version of AD B England is the 2019 edition published August 2019. It is split into 5 categories. This guide will focus on B1: Means of warning and escape. The latest version of AD B Wales is the 2006 edition with 2010 and 2016 amendments. It is also split into 5 categories. This guide will focus on B3: Means of escape.

3.2 AD B - The requirements

The requirements of AD B volume 1 are listed on page 8 of AD B England and [page 16 of AD B Wales](#). They both state that:

- a. The building will be designed and constructed so that there are appropriate provisions for the early warning of fire, and the appropriate means of escape.



3.3 Meeting the requirements.

AD B gives guidance on the escape criteria of different situations.

2.1 England ([3.3 Wales](#)) Escape from ground storey

2.2 – 2.3 England ([3.4 Wales](#)) Escape from upper storeys not more than 4.5m above ground level

2.4 England ([3.5 Wales](#)) Escape from upper storeys more than 4.5m above ground level

Diagram 2.1 England and [Diagram 1 Wales](#) supports.

Windows intended to provide fire escape facility should comply with the requirements of 2.10 England and [3.8 Wales](#). The requirements for England and Wales are the same.

Main entrance doors on escape routes should provide a means of escape using a non-key turn locking system from the inside. In most cases a thumb turn cylinder will be used. 3.91 - 3.93 of AD B England contains the full detail.

Replacement windows must comply with the detail contained within 2.18 - 2.20 England and [3.19 Wales](#).

Note: If windows are replaced, it may be necessary to provide cavity barriers around the opening in accordance with Section 5 of AD B England and [Part B3 Wales](#).

Guidance on fire doors is provided in Appendix C: Fire doorsets in AD B England and [Appendix B: Fire doorsets in AD B Wales](#).

4.0 Approved Document C: Site preparation and resistance to moisture

4.1 Introduction

The current 2013 edition of Approved Document C became a requirement in England from 1st October 2013. The current update of [AD C Wales was introduced from July 2017](#).

Both versions are split into 2 parts

C1: Site preparation and resistance to contaminants

C2: Resistance to moisture

This guide will focus on C2.

4.2 AD C -The requirements

The requirements for AD C2 are listed on page 5 of AD C England and [page 8 of AD C Wales](#).

It states that the walls, floor and roof shall protect the

building and its occupants from harmful effects caused by moisture. It gives examples of the type of moisture to be protected against.

4.3 Meeting the requirements

For windows and doors to meet the requirements of C2 clauses 5.29-5.33 of AD C must be satisfied.

These clauses cover:

1. The joint between walls and window/door frames. (5.29)
2. Damp-proof courses (5.30)
3. Cavity closer and reveal linings (5.31)
4. Check reveal (5.32)
5. Door thresholds (5.33)

AD C contains the full details of each clause.

It is important to follow the manufacturers' installation and weather sealing instructions at all times.

5.0 Approved Document F: Ventilation

5.1 Introduction

The current edition of AD F England is 2010, incorporating 2010 and 2013 amendments and became a requirement from 1st October 2010 and [in Wales it is the 2010 version incorporating further 2010 amendments](#).

5.2 AD F – The requirements

The requirements of AD F are listed on page 4 of AD F England and [page 10 of AD F Wales](#), they both state:

- a. There shall be adequate means of ventilation provided for people in the building.

The limitations are included in the same section.

5.3 Meeting the requirements

There are two types of ventilation to be considered. Purge ventilation and Background ventilation.

5.3.1 Purge ventilation

Purge ventilation is required to remove high levels of pollutants and water vapour. It is designed to achieve 4 air changes per hour. Section 3 of AD F gives a full definition of Purge ventilation under Key Terms.

Purge ventilation is often achieved by using window openers. Appendix B of AD F has details of the types and specification of window openers that can be used. A

general rule of thumb is that for windows that open 30 degrees or more then the area of the opening should total 1/20th of the floor area for the room they are in. Multiple window openers in the same room may be used to achieve this.

For windows that open less than 30 degrees, the area of the opening should total 1/10th of the floor area.

5.3.2 Background ventilation

Background ventilation is required so that the dwelling can constantly breathe. Good indoor air quality is good for health and helping to protect against the harmful effects of damp.

A common form of background ventilation used is trickle ventilators fitted to the windows and doors.

There are 4 recognised systems of ventilation within AD F, these are: -

1. System 1 – Background ventilators and intermittent extract fans
2. System 2 – Passive stack ventilation
3. System 3 – Continuous mechanical extract
4. System 4 – Continuous mechanical supply and extract with heat recovery

Full details, including the required total area of background ventilation, of these Systems can be found within section 5.10 of AD F and diagram 2a and Tables 5.2a - 5.2d.

Background ventilation when using trickle ventilators fitted to windows and doors is measured by equivalent area (EA). Section 4.26 and 4.27 contains further details of the measurement.

For work on existing buildings Section 7.2 – 7.6 contains full details of the requirement for replacement windows and doors. The key point is that building work, once completed should not have a worse level of compliance than before commencement of the work.

For the addition of a habitable room to an existing building see section 7.7 – 7.10

For the addition of a wet room to an existing building see section 7.11 – 7.15

For the addition of a conservatory to an existing building see section 7.16 – 7.20

6.0 Approved Document K: Protection from falling, collision and impact

6.1 Introduction

The current 2013 edition of AD K England became a requirement from 6th April 2013. The main changes from the 2010 edition is that it now includes elements of the older Approved Document N, specifically safety in relation to impact. AD N has now been withdrawn in England.

[The most recent edition of AD K Wales was introduced on the 1st October 2010. It is standalone from AD N which still applies in Wales.](#)

The English version of AD K is split into 6 parts: -

This guide will focus on the requirements of part 2: Protection from falling, and part 4: Protection against impact with glazing.

[AD K Wales is split into 5 parts.](#)

This guide will focus on part 2: Protection from falling.

6.2 AD K-The Requirements

The requirements of AD K part 2 Protection from falling are listed on page 22 of AD K England and [page 19 of AD K Wales](#) they both state that:

- a. Any stairs, ramps, floors and balconies to which people have access, and
- b. any light well, basement area or similar sunken area connected to a building,

Shall be provided with barriers where it is necessary to protect people from falling. In some cases it may be a window or door that is providing the barrier against falling.

The requirements for AD K part 4 Protection against impact with glazing are listed on page 30 of AD K England and state that:

Glazing, with which people are likely to come into contact whilst moving in or about the building shall:

- a. if broken on impact, break in a way which is unlikely to cause injury; or
- b. resist impact without breaking; or
- c. be shielded or protected from impact.

[This requirement is not included within AD K for Wales but is instead covered in AD N for Wales.](#)

6.3 Meeting the requirements

6.3.1 Part 2 Protection from falling

The requirements for both English and Welsh versions of AD K part 2 can be met by the following: -

- a. In dwellings provide pedestrian guarding that is capable of preventing people from being injured by falling from a height of more than 600mm

A window can, in a lot of cases provide that guarding so long as it is manufactured with due consideration to the specification required. The siting and design requirements of guarding are detailed with in section 3 of AD K England and [under Guidance on page 20 of AD K Wales](#). Diagram 3.1 of AD K England and [diagram 11 AD K Wales](#) supports.

For further guidance on the design of barriers, refer to BS 6180. Table 2 of BS 6180 has details of the loadings for different locations.

Section 3.3 of AD K England includes detail specific to the safety consideration of small children and barriers. The detail applies to both England and Wales.

6.3.2 Protection from impact with glazing.

The requirements of AD K part 4 in England shall be met if you adopt in critical locations one of the following approaches:

- a. Measures to limit the risk of cutting and piercing injuries the use of glazing that is reasonably safe, such that, if breakage did occur, any particles would be relatively harmless
- b. Use of glazing sufficiently robust to ensure that the risk of breakage is low
- c. Steps are taken to limit the risk of contact with the glazing

The critical locations are as described in Diagram 5.1 of AD K. It is important to know that the critical measurement is taken from the finished floor level up to the visible glass line, and is not measured up to the underside of the frame or sill.

Section 5.2-5.8 of AD K has further details of the required criteria for glazing to be considered as achieving safe breakage. Diagrams 5.1, 5.2, 5.3 and 5.4 of AD K support.

7.0 Approved Document L1A: Conservation of fuel and power in dwellings

7.1 Approved Document L1A: Conservation of fuel and power in new build dwellings

7.1.1 Introduction

The current version of AD L1A England includes the 2016 amendments and is under review at the time of writing.

The current version of AD L1A Wales also includes the 2016 amendments and is under review at the time of writing.

7.1.2 AD L1A - The requirements

The requirement for AD L1A is on page 3 of AD L1A England and page 8 of AD L1A Wales. Both state that

Reasonable provision shall be made for the conservation of fuel and power in buildings by:

- a. Limiting heat gains and losses-
 - (i) Through thermal elements and other parts of the building fabric; and
 - (ii) From pipes, ducts and vessels used for space heating, space cooling and hot water services
- b. Providing fixed buildings services which
 - (i) Are energy efficient
 - (ii) Have effective controls; and
 - (iii) Are commissioned by testing and adjusting as necessary to ensure they use no more fuel and power than is reasonable in the circumstances.

7.1.2 Meeting the requirements

In order to meet the requirements of AD L1A England windows and doors have minimum energy efficiency ratings calculated as a U value. It is important to declare whole product U values as opposed to centre pane (glass only) U values. Section 2.33 has detail on the limiting fabric standards. Table 2 includes detail on the minimum requirement for window and door U values.

[In AD L1A Wales it is table 4.2.1 on page 18 that includes this detail. The English and Welsh minimum values are different](#)

It is not unusual for a specification to ask for better U values than the required minimum as part of the overall building energy strategy.

On page 25 of AD L1A England there is guidance on using the Model Design method of compliance. This allows house buildings to use concurrent notional dwelling specification. Section 5.1-5.4 has the full detail of its application. Table 4 supports.

AD L1A Wales has similar detail contained within Appendix B on page 38, table B1 supports.

7.2 Approved Document L1B: Conservation of fuel and power in existing dwellings

7.2.1 Introduction

The current version of AD L1B England now includes the 2010, 2011, 2013, 2016 and 2018 amendments and is under review at the time of writing. It came into effect on 1st October 2010.

The current version of AD L1B Wales now includes the 2014 and 2016 amendments and is under review at the time of writing. It came into effect July 2014.

7.2.2 AD L1B – The requirements

1. Where a person intends to renovate a thermal element, such work shall be carried out as is necessary to ensure that the whole thermal element complies with the requirements of L1B Schedule 1
2. Where a thermal element is replaced, the new element shall comply with the requirements of L1B schedule 1

Schedule 1 of L1B is detailed on page 5 of AD L1B England and page 39 of AD L1B Wales.

7.2.3 Meeting the requirements

To meet the requirements of Schedule 1 replacement windows should comply with one of the following:

- a. Window Energy Rating minimum (WER) band C
- b. Whole window U value maximum 1.6 (W/m²K)
- c. Centre pane U value maximum 1.2 (W/m²K) (For exceptional circumstances only e.g historic buildings or unique windows).

All replacement doors should have a U value not exceeding 1.8 (W/m²K) in England and 1.6 (W/m²K) Wales or a Door Energy Rating (DER) of E in both England and Wales.

Further detail for the maximum allowable values of windows and doors see section 4.18 of AD L1B England and section 8 of AD L1B Wales.

8.0 Approved Document M: Access to and use of buildings

8.1 Introduction

The current 2015 amended edition of AD M England became a requirement from 1st October 2015. There were further minor amendments made in 2016. The main

changes are: -

AD M has been split into two parts.

1. Volume 1: Dwellings
2. Volume 2: Buildings other than dwellings

This document covers Volume 1 Dwellings.

Volume 1 is now split into 3 categories:

1. M4 (1): Category 1: Visitable dwellings
2. M4 (2): Category 2: Accessible and adaptable dwellings
3. M4 (3): Category 3: Wheelchair user dwellings

Regulation M4 (1) is the mandatory requirement unless one of the optional requirements of M4 (2) or M4 (3) apply.

[In Wales the current 2004 edition became a requirement from 1st May 2004. There were further amendments made in 2010. AD M in Wales is split into 4 categories;](#)

This document will focus on the requirement for dwellings

M1 – Access and use

M4 – Sanitary conveniences in dwellings

8.2 AD M- The Requirements

8.2.1 England

The requirement for Category 1 in England is detailed on page 3 of AD M, it states that reasonable provision should be made for people to:

- a. gain access to; and
- b. use the dwelling and its facilities

Category 1 does not apply to:

- a. an extension to a dwelling; or
- b. any part of a building that is used solely for maintenance purposes

Category 2 is detailed on page 10, it states:

1. Reasonable provision should be made for people to:
 - a. gain access to; and
 - b. use the dwelling and its facilities
2. The provision must be sufficient to:
 - a. meet the needs of occupants with differing needs, including older or disabled people; and

b. to allow adaptation of the dwelling to meet the changing needs of occupants over time

Category 2 may only apply to a newly erected dwelling and:

- a. will apply in substitute to Category 1.
- b. will not apply to any part of a building used solely for maintenance purposes

Category 3 is detailed on page 23, it states:

1. reasonable provision should be made for people to:

- a. gain access to; and
 - b. use the dwelling and its facilities
2. The provision must be sufficient to:
- a. allow simple adaptation of the dwelling to meet the needs of occupants who use wheelchairs; or
 - b. meet the needs of occupants who use wheelchairs

Category 3 may only apply to a newly erected dwelling and:

- a. will apply in substitute to Category 1&2.
- b. will not apply to any part of a building used solely for maintenance purposes.

Category 3 will only apply where the planning permission under which the work is being carried out specifies that it shall be complied with.

Where no category is specified then the minimum required standard of Category 1 should be adopted.

8.3.2 Wales

The requirements of AD M in Wales is detailed on page 11, it states that:

For category M1. Reasonable provision shall be made for people:

- a. to gain access to; and
- b. use the building and its facilities

The requirements of M1 do not apply to:

- a. an extension of or material alteration of a dwelling
- b. will not apply to any part of a building used solely for maintenance purposes

For category M4 the requirements are detailed on page 12

of AD M Wales. It states that reasonable provision shall be made for people in the entrance storey for sanitary conveniences, or where the entrance storey contains no habitable rooms, reasonable provision for sanitary conveniences shall be made in either the entrance storey or the principal storey.

The requirement for replacement products in existing dwellings is to not make the dwelling any less accessible than it was before. The height of a door cill should not be made worse.

8.4 Meeting the requirements

8.4.1 Category 1 England

Section 1.8 of AD M gives guidance that the principal communal entrance door of the building containing the dwelling shall have a clear opening width of 775mm, when measured in accordance with Diagram 1.1 of AD M. It shall have an accessible threshold as defined within Appendix A: key terms of AD M.

8.4.2 Category 2 + 3 England

Section 2.14 of AD M gives guidance that the principal communal and private entrance doors of the building containing the dwelling or the dwelling itself shall have a clear opening width of 850mm, when measured in accordance with Diagram 2.2 of AD M. Where there are double doors the main opening leaf shall provide a clear opening width of 850mm. Door entry controls, where provided, shall be mounted 900-1000mm above finished ground level, and at least 300mm away from any projecting corner. It shall have an accessible threshold as defined within Appendix A key terms of AD M. All other external doors including a conservatory that is integral with or connected to the dwelling shall also meet the requirements.

8.4.3 Part M1 and M4 Wales

The clear opening width through a single leaf door or the main leaf of a double door to a principal entrance of the dwelling shall be in accordance with Table 2 and diagram 9 of AD M Wales. Section 2.8-2.17 details further design considerations and provisions.

It shall have an accessible threshold as defined within section 2.7 (e) on page 35 of AD M.

In all cases a clear opening width is measured between the inside face of the doorframe and the face of the door when open at 90 degrees. Door furniture may be disregarded.

9.0 Approved Document N: Glazing – safety in relation to

impact, opening and cleaning- Wales Only

9.1 Introduction

The current 2010 edition of Approved Document N became a requirement in Wales from 1st October 2010.

AD N is split into 4 parts:

This guide will focus on N1 Protection against impact. Parts N2, N3 and N4 do not apply to dwellings.

9.2 AD N - The Requirements

The requirements are listed on page 6 of AD N part 1 in Wales and state that: -

The requirements shall be met if you adopt in critical locations where people are likely to come into contact whilst moving in or about the building one of the following approaches:

- c. Glazing if broken on impact, breaks in a way which is unlikely to cause injury; or
- d. resist impact without breaking; or
- e. be shielded or protected from impact.

The critical locations are as described in Diagram 1 of AD N. It is important to know that the critical measurement is taken from the finished floor level up to the visible glass line, and is not measured up to the underside of the frame or cill.

Section 1.3 – 1.8 of AD N has further details of the required criteria for glazing to be considered as achieving safe breakage or resistance to breakage. Diagrams 2, 3 and 4 of AD N support.

9.3 Meeting the requirements

The requirements of AD N in Wales shall be met if you adopt in critical locations one of the following approaches:

- a. Measures to limit the risk of cutting and piercing injuries by the use of glazing that is reasonably safe, such that, if breakage did occur, any particles would be relatively harmless.
- b. Use of glazing sufficiently robust to ensure that the risk of breakage is low.
- c. Steps are taken to limit the risk of contact with the glazing.

For doors and side panels the risk of impact with glazing is greatest between floor and shoulder level. In walls, windows and partitions, away from doors, the risk is higher

at low level. Particularly to children. The critical locations are as described in Diagram 1 of AD N. It is important to know that the critical measurement is taken from the finished floor level up to the visible glass line, and is not measured up to the underside of the frame or cill.

Safe breakage is defined in BS EN 12600 section 4 and BS 6206 clause 6.3 as:

- a. A small clear opening, with only small detached particles.
- b. Disintegration, with small detached particles
- c. Broken glazing in separate pieces that are not sharp or pointed

Glazing material satisfying the requirements of class 3 of BS EN 12600 or class C of BS 6206 is suitable for classification as safe breakage. If glazing is in a door or door side panel and has a pane width exceeding 900mm then it must satisfy the requirements of class 2 of BS EN 12600 or class B of BS 6202.

Robustness can be gained through an increase in glass thickness. Diagram 2 of AD N gives the maximum dimension of different thicknesses of glazing. All four edges must be supported.

In the context of this guide a small pane is an isolated pane or one of a number of panes held in glazing bars, traditional leaded lights or copper lights as shown in Diagram 3.

Small panes should be: -

- a. A minimum of 6mm thickness unless;
- b. in traditional leaded or copper lights, where fire resistance is not a requirement you may use 4mm glass

Permanent screen protection should comply with Diagram 4 of AD N and all of the following:

- a. Prevent a sphere of 75mm from coming into contact with the glazing
- b. Be robust
- c. Be difficult to climb

10.0 Approved Document Q: Security

10.1 Introduction

AD Q Security England became a requirement for new dwellings from 1st October 2015 and 1st November 2018 in Wales.

It was introduced following a review and subsequent removal of the Code for Sustainable Homes in 2014.

AD Q relates to the security of windows and doors installed and is based on the security requirements of PAS 24- PRODUCT ASSESSMENT SPECIFICATION Enhanced Security performance requirements for doorsets and windows in the UK. The English AD states a dated version of 2012 whereas [the Welsh AD states a dated version of 2016](#). In Wales there is an added requirement for security lighting that is not included in the English document.

10.2 AD Q - The Requirements

The requirements of AD Q are detailed on page 2 of AD Q England and [page 9 of AD Q Wales](#).

AD Q requires all easily accessible windows and doorsets to be secure. This can be demonstrated by showing the window and doorsets are: -

- a. Made to a design that has been proven by test to meet the security requirements of PAS 24:2012(England) and [PAS 24:2016 \(Wales\)](#)
- b. Designed and manufactured in accordance with Appendix B of AD Q.

NOTE: AD Q defines an easily accessible window or doorset within Appendix A: key terms as: -

- A window or doorset, any part of which is within 2m vertically of an accessible level surface such as ground or basement level, or an access balcony; or
- A window within 3 metres vertically of a sloping roof (with a pitch of less than 30 degrees) that is within 3.5metres of ground level.

There are alternative methods of demonstrating compliance detailed within Section 1: Doors and Section 2: Windows of AD Q.

AD Q also makes reference to the installation and fixing of windows and doorsets detailed in clauses 1.5 and 1.6 of the English version and [clause 1.5 of the Welsh version](#).

When bespoke timber doorsets are specified these may be used without testing to any of the above standards but should be manufactured to the specification detailed in AD Q Appendix B as a minimum. Appendix B is applicable to doorsets upto 1000mm wide and 2000mm high. It states that additional measures may be required for larger doorsets.

10.3 Security Requirements of PAS 24:2012 and PAS 24:2016

The clauses within PAS 24:2012 and PAS 24:2016 which

are applicable to security as defined in AD Q are as follows:

PAS 24 Clause 4.1.2 Doorsets – shall meet the requirements of PAS 24 sub clauses: -

- 4.2 Infill medium requirements.
- 4.3 Letter plates – requirements when a letter plate is included
- 4.4 Door chains and viewers
- 4.5 Classification
- Annex A – Security hardware and cylinder test and assessment of PAS 24
- Annex B – Enhanced security performance requirements for doorsets of PAS 24 or BS EN 1627 classification RC3 including some additional testing to PAS 24 Annex A

PAS 24 Clause 4.1.3 Windows – shall meet the requirements of PAS 24 sub clauses:

- 4.2 infill medium requirements
- 4.3 Letter plates – requirements when a letter plate is included
- 4.4 Classification
- Annex C – specification for enhanced security performance of windows of PAS 24 or BS EN 1627 classification RC2N.

For full details of these clauses please refer to the PAS 24 document.

NOTE: The latest revision of PAS 24:2016 as referenced within the Welsh AD Q, has now included within sub clause 4.2 the requirement for doorset coupled side panels and adjacent windows to also be glazed with P1A or better rated laminated glass.

10.5 Demonstrating compliance with AD Q

AD Q requires that windows and doors are manufactured to a design that has been shown by test to meet the requirements of PAS 24:2012 in England and [PAS 24:2016 in Wales](#).

Or designed and manufactured in accordance with Appendix B of PAS 24.

10.5.1 Third party test evidence.

This allow systems designers/houses to provide test

evidence of design compliance to PAS 24, together with the relevant manufacturing specification including the specific hardware used, to manufacturers and fabricators who may then manufacture windows and doorsets to that specification and claim compliance to AD Q without further testing.

This method benefits fabricators who do not wish to hold test evidence in their own name, and is the minimum requirement of AD Q

4.1 Manufacturer/Fabricator test evidence

The test criteria is identical to those detailed above but enables the fabricator to decide the exact hardware configurations outside of what the system house may have tested. It also gives the fabricator the freedom to change the hardware in line with their own test regime they have in place. All hardware options must have test evidence.

4.2 Third party certification

Third party certification of products can be achieved either by a system house or a fabricator/manufacturer who have their own test evidence.

The advantage and reassurance that third party certification gives is that the system is continually assessed via independent audits on factory production controls (FPC) and test evidence. By using a UKAS accredited third party certification body the fabricator/manufacturer or system house may apply for Secured By Design also. When products are certified to PAS 24 they will be assessed against all clauses of the PAS 24 standard. These include:

- Products must be manufactured in accordance with the BS material standard, eg BS 7412 for PVC and BS 644 for timber.
- Products must be classified according to BS 6375:2015.

Third party certification is the most robust method for compliance with AD Q.

4.3 Marking of windows and doorsets

In accordance with clause 5 of PAS 24, all windows and doorsets shall be permanently marked, in a position visible and readily accessible when the product is open and not visible when closed.

The details of the marking is covered within clause 5 of PAS 24.

11.0 Approved Document Regulation 7: Materials and Workmanship

11.1 Introduction

The current version of AD Regulation 7 Materials and workmanship (AD R7) became a requirement for new dwellings from 1st July 2013 in England and [1st September 2013 in Wales](#).

The update of AD R7 was to reflect the full implementation of the Construction Products Regulation (CPR), from 1st July 2013.

11.2 AD R7-The Requirements

AD R7 relates to new dwellings only or new dwellings formed by a material change of use.

AD R7 requirements are detailed on page 2 of AD Regulation 7 England and [page 9 in AD Regulation 7 Wales](#), it states that all building work shall be carried out:

- a. With adequate and proper materials
- b. In a workmanlike manner.

Both the following conditions must be met to satisfy the requirements:

- a. Materials are of a suitable nature and quality.
- b. Workmanship is such that, where relevant, materials are applied and fixed so as to perform adequately their functions for which they are intended.

11.3 Demonstrating compliance with Approved Document Regulation 7

11.3.1 Materials

There are a number of ways in which to assess the suitability of materials. The full list is contained within Section 1: Materials of Approved Document Regulation 7.

The below represents the most likely route for compliance for windows and doors:

- a. CE marking. The Construction Products Regulation (CPR) requires that construction products placed on the market within the EU and the UK during the transitional leaving period, that are covered by a harmonised standard should normally have CE marking. For more information about achieving CE marking visit <https://www.ggf.org.uk/dashboard/ce-marking>

CE marked products will be accompanied by a Declaration of Performance containing detailed information on performance. It is essential that

the declared performance is suitable.

- b. British Standards. Some of the applicable standards for window and doors would be BS 6375 parts 1, 2 and 3, PAS 24 and material specific standards such as BS 7412, BS 4873 or BS 644.
- c. Independent certification schemes. There are a number of third party certification schemes in the UK that may provide information on the performance of a product. These may be in addition to but not instead of CE marking

11.3.2 Workmanship

There are a number of ways in which to assess the suitability of workmanship. The full list is contained within Section 2: Workmanship of Approved Document Regulation 7.

The below represents the most likely route for compliance for windows and doors:

- a. Standards. Methods of carrying out different types of work are detailed in some British Standards and other appropriate technical specifications. The BS 8000 series of standards on workmanship on building sites combines guidance from other BSI codes and standards. Relevant standards for windows and doors include BS 8000-7, BS 8213-4 and also elements of material specific standards such as BS 7412, BS 4873 or BS 644.
- b. Competent person scheme. Schemes including competent person self-certification schemes, that register installers of materials can provide a means of ensuring that work has been carried out to a level expected and by knowledgeable contractors. For windows and doors an example of such a scheme is FENSA.
- c. Management systems. The quality of workmanship can be covered by a quality management scheme such as BS EN ISO 9001 Quality management system. These schemes give confidence that the processes and people are regularly audited by a third party and that they strive to continuously improve.