

Specifying doors to meet
Approved Document M
of the Building Regulations

Introduction

Part M? DDA? BS 8300? Or the Equality Act?

When specifying doors and associated elements such as openings and ironmongery, it's clear that the regulations are, well, not very clear.

This eBook gives an overview of the changes in recent years regarding legislation concerning disabled access.

Looking first at the regulations and standards surrounding door specification, we will focus on the requirements of Part M of the Building Regulations relating to doors.

2. Regulations and standards

When asking questions about door specification for disabled access, a common misconception is that doors need to be designed to be DDA compliant.

Strictly speaking, the Disability Discrimination Act (DDA) no longer exists. However, provision for the elements covered by the DDA is now made in the Equality Act (EA).

The Equality Act (EA) 2010

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incorporated (and repealed) the DDA. This means that the Equality Act therefore renders the term 'DDA compliant' obsolete.

The EA carries forward the protection provided for disabled people by the DDA, but its application is considerably wider. It covers services in the commercial, retail, financial, residential, education, healthcare and transport sectors.

As the EA relates to access to services rather than to premises, buildings and products cannot be 'EA compliant'.

Instead, they must comply with either Part M of the Building Regulations or the recognised technical standard BS 8300.

Despite this, DDA compliance is still the way many people refer to accessibility regarding doors.

Clear? Not really...

Put simply, doors and the related access considerations around them need to be specified to meet the requirements of Approved Document M of the Building Regulations, using products that need to meet the codes of practice set out in BS 8300.

2.2 Regulations and standards

What is Part M?

Approved Document M of the Building Regulations (access to and use of buildings) is often referred to as Part M or ADM, and provides guidance on the design and construction of buildings to ensure access and inclusion for all.

- Significant amendments to Part M came into effect in 2010 and 2013. These changes included updated guidance on door opening forces and changing places/toilets.
- Updated guidance on guardrails and handrails and manifestation for glass doors and glazed screens moved to Approved Document K (ADK): Protection from falling, collision and impact.

2.3 Regulations and standards

What is BS 8300?

BS 8300 is the code of practice that helps disabled people make the most of their surroundings through architectural design in the built environment. It looks at the provision of aids and the use of features such as ramps, guardrails and signs. The code is officially known as BS 8300: 2009+A1: 2010 (Design of buildings and their approaches to meet the needs of disabled people - Code of practice).

However, it is incorrect to assume compliance with Part M alone will meet the requirements of the EA. Also, it should be noted that the requirements of Part M and BS 8300 are 'minimum standards'.

Simple? Hmm maybe not quite yet...

To clarify how Part M impacts door specification we need to consider the following:

• Space – this is the space around a door, which, if in a wheelchair, will also determine how you approach the door, either head on or at an angle. This will impact the clear opening width required. The direction and width of approach determines the width of the door specification, due to the angle of the door. This normally isn't an issue with an external door. External doors should not open out if they present a hazard to pedestrians (i.e. you open the door and hit someone). This can be dealt with either by recessing the door within a reveal so that it opens out but within the building line, installing clearly visible handrails or, if all else fails, open the door in.

2.3 Regulations and standards

- Visibility this impacts the specification of the vision panels and also the ironmongery, as explained in section 6 of this document. Contrast is required between the ironmongery and the colour of the door. The contrasting finishes of the ironmongery (handle) and the face of the door must give the minimum light reflective value (LRV) of 30 points.

 There is also a requirement for architraves and/or frames to contrast with the wall. This contrast also applies to the edge of a door if the door is open at 90 degrees such as doors on hold open devices in hospitals. In this event the edge of the door should contrast with either the face of the door if open at an angle; or if at 90 degrees then contrast with the frame/architrave as well (further information on this can be found in BS 8300 7.2.5).
- **Door approach** this is determined as covered above by the available space to approach the door. For example, if you're coming down the corridor in a wheelchair and the door is in the corner, there may be insufficient width in the corridor for you to get through.
- Access (ramps) If you have a ramp rising from one side of a door to another, you need to consider which way the door opens. Invariably you get a ramp leading up to a door with a flat walkway on the other side. However there are instances in which you could have an ascending ramp interrupted with a fire door; in this instance the door must open away from the ascent.

2.3 Regulations and standards

• Closing force – this is principally a function of ironmongery; the heavier or wider the door the more powerful the closer required. Conflicting requirements can arise between the force needed to close a door and the maximum strength required to satisfy Part M. The power of the closer may have to be reduced to meet Part M requirements.

The closing force can be impacted by the flow of air (differential air pressure) through the building's space making the door difficult to close. This is common around fire doors in multi occupancy buildings. It is possible to specify fire resisting vents/grills in the door which will allow air to pass through the door to reduce pressure.

In some buildings, air pressure can create closing issues for external doors as the force required for closing is too high to comply with Part M. This problem is common in care homes with large heavy external doors. The less able may not be able to open the door if the closer is too strong; the remedy for this is to install powered closers.

• **Door thresholds** – to meet the requirements of Part M, door thresholds should be a maximum of 15mm; the threshold should be chamfered or rounded for ease of wheelchair access.

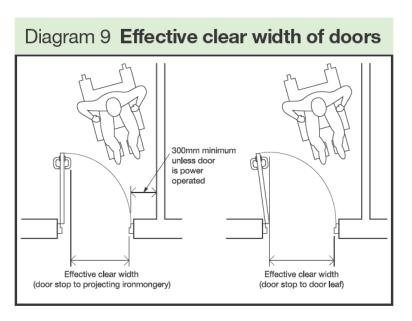
These door specification considerations relate directly to four main areas of Part M:

- Clear opening widths
- Visibility requirements
- Threshold heights
- Self-closing devices

Minimum Effective Clear Opening Widths (ECW)

Direction & width of approach	New Buildings (mm)	Existing Buildings (mm)
Straight-on (without a turn)	800	750
At right angles to an access route at least 1500mm wide	800	750
At right angles to an access route at least 1200mm wide	825	775
External doors to buildings used by the general public	1000	775

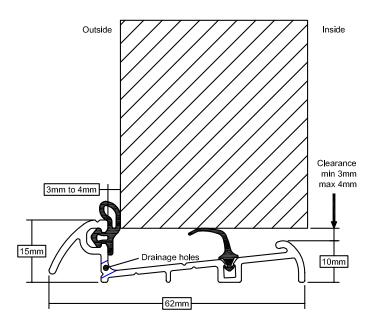
Note: The ECW is the width of the opening measured at right angles to the wall in which the door is situated, from the outside of the door stop on the closing side to any obstruction on the hinge side e.g. projecting door furniture, the door or the door stop.



Source: Approved Document M – Access to and Use of Buildings

Threshold heights

Any change in surface or level, such as gradients and upstands found at door thresholds, can be problematic for wheelchairs, the visually impaired and less able. To meet the requirements set out in BS8300, thresholds should preferably be level. There are cases where a raised threshold is unavoidable, usually to to prevent water ingress. In these cases the threshold should have a maximum height of 15mm. Any upstand more than 5mm high should have exposed edges chamfered or round to minimise problems with access.



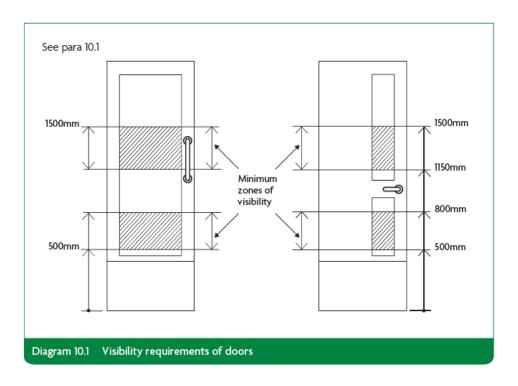
Source: Stormguard

www.stormguard.co.uk

Visibility requirements

People should be able to view others approaching or standing either side of a door to avoid the risk of collision. (There may be circumstances where for reasons of privacy or security this may not be appropriate or possible).

The diagram below shows the minimum requirements to satisfy Part M. (Please note that this diagram is now shown in Part K of the Building Regulations, not Part M. It is referenced in Part M).



Source: New Approved Document K – Protection from falling, collision and impact (2013 Edition)

Visual contrasts – Light Reflective Values (LRV)

Visual contrasts are required between ironmongery and door surfaces. Also, for doors likely to be kept open (particularly at 90 degrees), a contrasting leading edge should be provided. Door frames and architraves should contrast with the adjacent wall colour.

Contrasts are measured by comparing the light reflective values (LRVs) of different materials and colours. Generally a LRV of a minimum of 30 points must apply to adjacent surfaces. (LRV is measured on a scale of 0 to 100 with 0 representing perfect absorbing black and 100 perfect reflecting white. In reality these perfect colours are not found – a bright white would typically have LRV of 85). Colour charts showing LRVs against each colour are available from leading paint manufacturers.

Self-closing devices

Many doors are fitted with non-powered closers. This is particularly the case with fire doors, but often occurs on external doors as well. Part M (and BS 8300) requires that the opening force at the leading edge of the door is no greater than 30N from 0 degrees, that is the door closed to 30 degrees open, and not more than 22.5N from 30 to 60 degrees of the opening cycle. This can sometimes create a conflict between satisfying ADM and closing the door: a conflict that can only be resolved by installing a powered closing device.

For more information on Part M and how it may affect your project please contact us at

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