

A GUIDE TO DOOR LOCKS & HARDWARE

PUBLISHED BY AB ROOMS

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Lock and Furniture to EN179 CE Marked



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Key override cylinder to EN 1303 Fire Tested



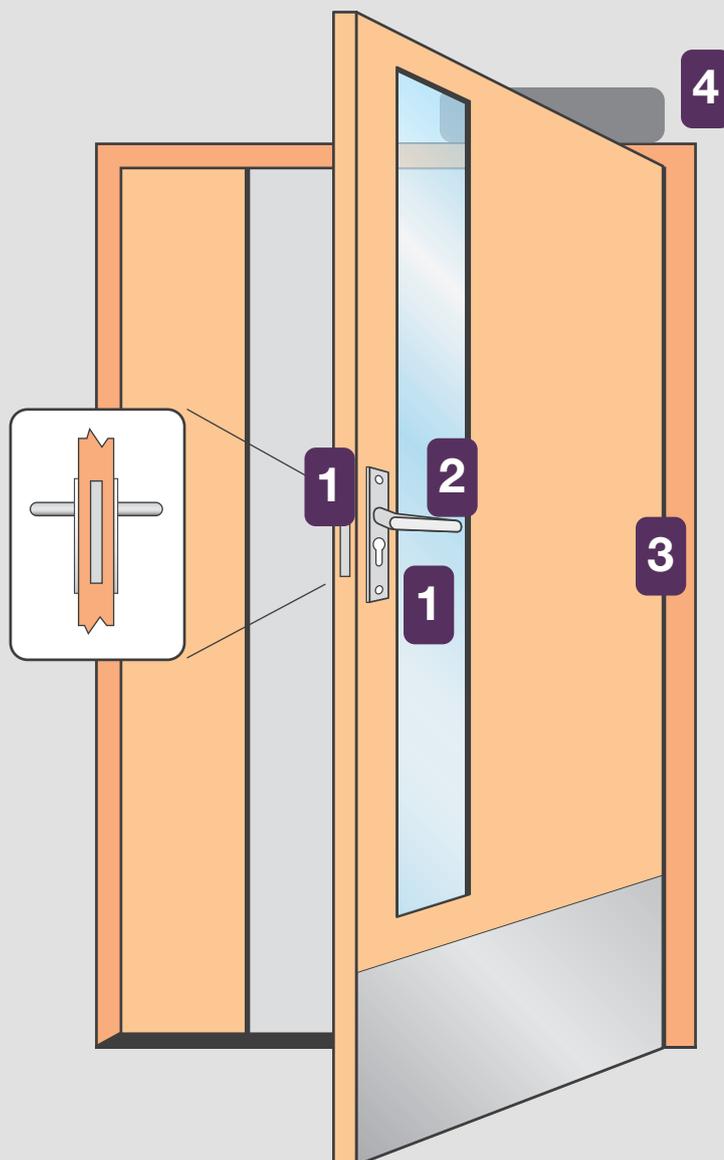
3

Hinges to EN 1935 CE Marked



4

Door closer to EN 1154 CE Marked



There are a considerable number of standards and regulations affecting the industry. This guide briefly summarises those applying to door locks and hardware fitted in commercial buildings, and therefore of particular concern to property and facility managers. We have also given an overview of the various categories of door hardware.

ABR guides - An occasional series of guides both to the regulations and safety considerations which are fundamental to certain aspects of our industry – fire doors and door locks for example – and to particular types of products, such as vaults and safes.

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LOCK & SAFE ENGINEERS

STANDARDS AND REGS

CONSTRUCTION PRODUCTS REGULATION 1st JULY 2013 – CPR

This is the Act which legislates for the quality of door hardware. It means that products fitted on fire and emergency escape doors must be to the correct standard, and should also have a Declaration of Performance certificate.

Just to clarify, the DoP sets out the key facts about a particular product so that users can ensure that it fits exactly the intended use, obviously fundamental in matters of security and safety. Where this applies, the DoP will include validation of any CE marking. CE markings are about safety in use, which means of course that non-compliance can affect insurance, and will affect life safety performance.

We should also flag up The Regulatory Reform Order, which came into force in October 2005. This Order replaces most fire safety legislation with one simple order. It means that any person who has some level of control in premises must take reasonable steps to reduce the risk from fire and make sure people can safely escape if there is a fire or other emergency. This is different from previous legislation in that it applies not only to those who work in the building but also to anyone who might come into the premises. This therefore affects fire doors in particular.

EMERGENCY ESCAPE DOORS

EN179



DEFINITION: Emergency escape where panic is unlikely to occur, usually a building where the occupants are aware of how a door operates.

Specification: the minimum requirement is that these doors must operate from the inside using only a live mechanical lever or paddle handle. This is so that people can open these doors with one single movement, making getting out of the building as quick as possible. The lever handle or paddle handle needs to be operable even when side pressure is applied to the door. Any locking unit which

conforms to EN179 must have been tested as a complete unit which includes the internal lever or paddle, the lockcase/unit AND the strike plate. This is because all these components and their interaction with one another are deemed critical to life safety.

EN1125

DEFINITION: Emergency escape doors where a panic situation is likely to occur, such as any building where the general public would be admitted and would be unaware of how the door locks operate.



Specification: these doors should be fitted with a locking unit that is operable from the inside with a panic bar. The bar – NOT THE COMPLETE UNIT - should extend a minimum of 60% across the width of the door. Exit should be possible at a single push at anywhere on the bar. These doors must open outwards to conform with the standard.

In addition to the locking hardware, both the above door types must be fitted with door hardware which provides similar conformity. Hinges and closing devices have their own mandatory specific standards. And if the door is also to be classified as a fire door, then there are further factors which must be applied.

One of the Abloy range of panic bars. This range of panic bars is fully compliant to EN1125 for use on Panic Exit Doors ensuring escape at all times. Suitable for narrow stile and solid doors, single and double door sets.

FIRE DOORS

EN1634

DEFINITION: Doors which are designed to prevent the spread of fire through a building by providing fire resistance for a specific period of time, usually 30 or 60 minutes. These doors will be found along escape routes to ensure protection from fire during an evacuation.

Specification: these doors should be fitted with more than 2 hinges [EN1935] and a controlled closing device [EN1154] as well as the correct signage and fire and smoke seals. Any other hardware which is fitted to the door must also conform to the correct standard.

The relevant standards for door hardware are

EN 1154 – controlled closing device

EN 1303 – cylinders for locks

EN 1155 – electrically powered hold open devices

EN 12209 – mechanical resistance for locks - also applicable = **BS3621, BS8621 and BS10621**

EN 14846 – electro mechanical locks and strikes

EN 1935 – single axis hinges

EN 1906 – lever handles or knobs

EN 1158 – door coordination devices

SUMMARY OF THE DOOR TYPES AND THE REQUISITE HARDWARE

Door type A: Non Fire Door, non Escape Door.

Hinges to EN1935, door closer to EN1154, lock to EN14846, or electromechanical to EN12209, furniture to EN1906, cylinder EN1303. Note: this is best practice, it is not mandatory.

Door type B: Non Fire Door, Emergency Escape Door.

Hinges to EN1935 CE marked, door closer to EN1154 CE marked, lock and furniture to EN179 CE marked. Cylinder EN1303. The lock should also be CE marked to EN14846 or electromechanical to EN12209. Mandatory under the CPR.

Door type C: Non Fire Door, Panic Escape Door.

Hinges to EN1935 CE marked, Door closer to EN1154 CE marked. Lock and furniture to EN1125 CE marked, Cylinder EN1303. The lock should also be CE marked to EN14846 or electromechanical to EN12209. Mandatory under the CPR.

Door type D: Fire door, non Escape.

Hinges to EN1935 CE marked, door closer to EN1154 CE marked, lock to EN14846 or electromechanical to EN12209 CE marked, furniture to EN1906 Fire Tested. Cylinder EN1303 Fire Tested. [see digit 4 of the classification code] Mandatory under the CPR.

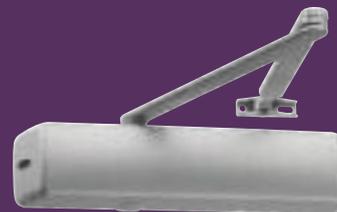
Door Type E: Fire door, Emergency Escape Door.

Hinges to EN1935 CE marked, door closer to EN1154 CE marked, lock and furniture to EN179 CE marked, Cylinder EN1303 Fire Tested. [see digit 4 of the classification code]. The lock should also be CE marked to EN14846 or electromechanical to EN12209. Mandatory under the CPR.

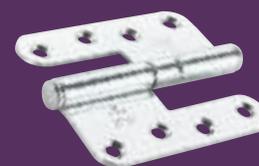
Door type F: Fire door, Panic Escape.

Hinges to EN1935 CE marked, door closer to EN1154 CE marked, lock and furniture to EN1125 CE marked, Cylinder EN1303 Fire Tested. [see digit 4 of the classification code]. The lock should also be CE marked to EN14846 or electromechanical to EN12209. Mandatory under the CPR.

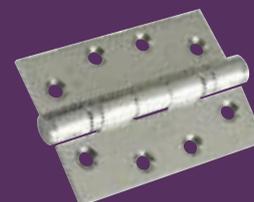
EXAMPLES OF CERTAIN TYPES OF DOOR HARDWARE



Example of door closer – EN 1154



EN 1935 – example of lift-off hinge



EN 1935 – single axis hinge



EN 1303 – cylinders for locks

There is a £10k fine for any fire door found jammed open. There are products - such as the Dorgard shown here which conforms to EN 1155 - which can be used to make such doors easier to navigate.

ACCESS CONTROL SYSTEM CONFORMITY

Under the CPR it is essential to identify correctly the type of door on which an access control system is being installed be it electronic or mechanical. A door magnet/request to exit button/emergency break glass combination fitted to an incorrectly identified door would be deemed illegal and could prove fatal.

JUST TO REPEAT

REGULATORY REFORM ORDER

Under the RRO the responsibility for ensuring mandatory compliance is placed firmly with the building owner/ manager and/or the managing agent. Under the law, ignorance is not a defence.

The other key piece of legislation is:

EQUALITY ACT 2005/ DDA ACT

To ensure that all people can get into and out of buildings easily and without hindrance.

Within this are a wide variety of lock and door operators types.

Just one example – the illustration below shows how the relationship between handle and cylinder can be used to help people with impaired vision - in [A] the distance between the two is increased; and in [B] the cylinder and handle are reversed



use of Dorgards in a school where a series of doors is kept open, quite legally and safely – previously this series caused immense problems when crowds of pupils and staff were moving between rooms

Exterior		Interior
Key operates deadbolt and latchbolt.		Turn operates deadbolt and latchbolt.
Lever handle retracts latchbolt.		Lever handle retracts latchbolt.

A

type A - showing lock below handle – note also the increased distance between the two items in both these examples also makes managing the door considerably easier for those who find such things physically difficult

Exterior		Interior
Key operates deadbolt and latchbolt.		Thumbturn operates deadbolt and latchbolt.
Lever handle retracts latchbolt.		Lever handle retracts latchbolt.

B

type B - showing handle below lock

For specific situations and requirements please contact us.



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