



# White Paper

ASSA ABLOY

Keeping up with compliance:  
Escape doors standards

# Introduction

When it comes to access control, there is no greater responsibility than specifying the correct locking solution on emergency escape and fire doors. Fitting the correct system can mean the difference between life and death for the occupants of a building.

There is an average of 162 building fires in Great Britain every day<sup>1</sup>, with more than 9,100 fatalities or casualties from those fires, which works out at around 25 a day<sup>2</sup>.

What's more, the London Fire Brigade reported three deaths and 36 people injured in fires in the capital over a three-year period, where fire doors had been replaced, left open or incorrectly fitted<sup>3</sup>.

In this white paper we explore why it's vital that each party - whether an architect, specifier, facilities manager or installer - takes responsibility for ensuring the correct compliant systems are in place to guarantee safe egress for the occupants of the building in the event of an emergency.





## Responsibility and regulations

From a legal standpoint, who does the responsibility lie with to ensure the correct escape and fire doors are in place?

In 2005, a new fire safety law was introduced to replace more than 70 pieces of previous legislation. The Regulatory Reform (Fire Safety) Order 2005 3 – commonly known as the Fire Safety Order or FSO – now firmly places responsibility for fire safety in buildings to whoever has day-to-day control of the premises<sup>4</sup>.

Although there are regulations such as these in place, awareness of fire safety responsibilities is still low. When a study conducted in 2014 asked respondents with formal responsibility for fire safety in their organisations if they were fully aware of their legal obligations, almost half (46.5%) said they either did not know what they were, or admitted they were unclear<sup>5</sup>.

A similar proportion (45%) of people responsible for fire safety in their organisations said they would not know how to spot a 'dodgy' fire door – one of the most critical passive fire protection features in the buildings we use every day.

This is clear evidence that there needs to be more education and a higher priority placed on escape and fire door safety, and how to ensure the solutions specified are both safe and compliant.



## Setting standards

There are also a number of building regulation standards in place that relate to access control. It's essential that these are adhered to, in order to ensure safety and security.

These include BS179 Emergency Escape (for when the building occupants are aware of the building environment), BS1125 Panic Escape (for environments used by the general public) and the new standard BS13637 Electronically Controlled Escape Systems (for use on escape routes).

These standards state that even if a door is electronically controlled for access there must be a compliant mechanical means of escape in an emergency.

In the case of fire doors this is essential to provide fire protection, to compartmentalise a building and to protect the escape routes. This is also a critical function in a terror situation - offering the ability to shut off certain areas to terrorists and allow egress or access to ensure the safety of the public.

## CE marking

A CE mark should be present on locking devices too, confirming they comply with EU legislation. It is now a legal requirement for manufacturers of construction products in the UK to apply CE marking to items that are covered by harmonised European Norms (hEN).

A CE mark shows that the minimum performance requirements of the product have been met, however it is not always a sign of high quality. Alongside the CE mark, a Declaration of Performance (DoP) document has to be made available to the customer upon request.

DoP's are legal documents provided by the manufacturer stating that the product (or combination of products) meets the minimum performance criteria for the application in question. DoP's are only supplied for products that are covered by a Harmonised standard. Harmonised standards are known as hEN's, and in the case of fire and escape doors the scope concerns life safety.

Generally, manufacturers provide DoP's for products that are designed for use on fire or escape doors, but it is possible for distributors to 'CE' mark product combinations and create their own DoP's for the product (or combination of products), meeting the minimum performance standard of the relevant hEN. Legally, this document must be provided on request, and it is seen as a minimum requirement for legal compliance of the applications.



## Compliance and substitution

A compliant solution will consist of a number of products that are tested and CE marked to BS179 to form a complete package.

This package may include a tested lever handle set and spindle, a mortice lock case, and a striker plate. All of these items are tested as a complete set and cannot be substituted unless the DoP specifically makes reference to alternatives.

It is quite common for DoP's to list a number of alternative strikes that can be used, and the products can be mixed as required allowing flexibility and customer choice - as well as providing similar compliant solutions, allowing for different door types.

In some cases it is possible to make substitutions without affecting the compliance of a solution - this will be within a defined range, as identified on the relevant DoP.

However, the manufacturer or distributor placing the original product combination on the market confirms that it meets the minimum performance criteria - as long as nothing is substituted.

So there can be issues when replacing a product within a package that is not listed in the DoP. If any component is substituted (the lever handle, striker plate, or lock case) for one that is not specifically noted, the DoP is rendered invalid.

Therefore it will be the responsibility of the manufacturer or distributor supplying this product, assuming that they intend it to be used on a fire or escape door set, to provide on request a DoP covering this combination for 10 years post-sale.





## British standards

British Standards BS179 and BS1125 have been well-established for many years. Whilst it is possible to provide electric locking solutions that meet these requirements, the lack of an electric locking standard can cause confusion and incorrect specification.

Some clarity can be gained from BS13637 - Building hardware - Electrically controlled exit systems for use on escape routes – completing the package and providing a solution for applications. This standard describes methods of escape for escape doors and fire doors.

Non-escape fire door applications are covered from a locking perspective under BS14846 Electromechanically operated locks and striking plates, the sister standard to BS12209, covering the same application for mechanical locks.

Both of these standards BS14846 and BS12209 are hEN's, hence products fitted to fire door applications must be CE marked to the relevant standard. These products are not suitable for use on panic or emergency escape door sets unless they are also 'CE' marked to BS179 or BS1125 as part of a set of components.

The publication of BS13637 now completes the package in terms of escape door compliance, allowing a host of additional opportunities for electrically controlling escape applications. The standard will eventually become a hEN and it is expected that this will be fully in place this year.

Currently, it is not possible to 'CE' mark to this standard so it's not covered fully under the Constructions Product Regulations until this process is complete, however it is a published standard and as such considered as best practice.

BS13637 can be supplied as a single solution providing for fail unlocked electric locking on Escape doors sets, but is often combined with a mechanical BS179 / 1125 solution providing for both escape and security.



## Electric locking

In the event of an emergency such as a fire, there needs to be a reliable exit route that allows a quick and easy escape, so ensuring the correct locking solutions are installed at access points is crucial.

There are safety advantages to be gained by opting for an electric locking system – such as a motorised or solenoid lock – rather than choosing door magnets.

This is because there can be fire risks associated with installing a magnet on a door which is used as a fire escape, as they require special arrangements to guarantee they are fail-safe at all times in the event of an emergency.

For example, some door magnets require an alarm or 'request to exit' mechanism to allow someone to exit, so there could be delays for people needing swift egress in an emergency situation.

Electric locks are also a more energy efficient solution when compared with magnetic locks - 13 door magnets use around the same amount of electricity as a kettle being constantly boiled all day. In comparison, electric locks will only require around 10-20 per cent of this amount of energy to operate for the same amount of time.

## Abloy's Solutions

Abloy UK offers a selection of compliant security solutions that are ideal for panic and escape doors.

The market-leading Abloy range of electric locks includes motor and solenoid locks, which are the most effective forms of electric locking, and also ensure compliance to the mandatory fire and escape standards.

Solenoid locks, like the Abloy EL560, work by controlling the handle and are suitable for internal doors of public buildings, offices, schools or hospitals, and external doors of apartments and detached houses.

Motorised locks, like the Abloy EL520, work by drawing the bolt back once a proximity card or device is presented. Both locks automatically secure a deadbolt upon closing, and can be used with escape mechanisms as appropriate to the environment and application.

## Conclusion

Compliance is a vast subject and keeping up to date with ever evolving standards should be an important part of our daily work, allowing specifiers to maintain a high level of professional standing and differentiate themselves from competitors.

Ensuring compliance means customers will feel safe knowing they will be able to escape from a building through emergency doors as required, and that the fire doors will function as they were designed – which in some circumstances could save their life.



## About

Abloy UK is the UK's leading expert on high quality door locking and functionality.

Its product range includes electric locking, cylinder, padlocks, door operators and more. Together, the solutions offer secure, compliant and lasting solutions trusted by organisations throughout the UK, Ireland and worldwide, across a variety of industries – wherever compromise is not an option.

Abloy has the capability to offer you a complete security solution; from initial surveys and fact finding, to assessments, problem solving and planning through to specification.

All Abloy staff are friendly, fully engaged and willing to put in that extra commitment to find the correct solution to suit your needs.

## Sources and Additional Resources

1 – Between 2013-14

2 - <https://www.gov.uk/government/statistics/fire-statistics-monitor-april-2014-to-march-2015>

3 - 2014 - [http://www.london-fire.gov.uk/news/AC1B4F18D05A4D82B52979C6465BBFE5\\_22804B80F85148BFBA15726034A0E9E5.asp#.VdW6tPIVikoww.london-fire.gov.uk/news/AC1B4F18D05A4D82B52979C6465BBFE5\\_22804B80F85148BFBA15726034A0E9E5.asp#.VdW6tPIViko](http://www.london-fire.gov.uk/news/AC1B4F18D05A4D82B52979C6465BBFE5_22804B80F85148BFBA15726034A0E9E5.asp#.VdW6tPIVikoww.london-fire.gov.uk/news/AC1B4F18D05A4D82B52979C6465BBFE5_22804B80F85148BFBA15726034A0E9E5.asp#.VdW6tPIViko)

4 - <http://www.legislation.gov.uk/uksi/2005/1541/contents/made>

5 - Survey carried out 27-29 August 2014 by Atomik Research on behalf of the BWF-CERTIFIRE Scheme. The sample consisted of two groups: a 500 individuals group responsible for fire safety in a variety of organisations, and a 500 consumers group aged 18-65 and nationally representative.





## Training opportunities

Abloy offer Academy and approved CPD training to help educate those responsible for making sure compliant products are correctly specified and installed.

For more information, go to  
**[www.abloy.co.uk/academy](http://www.abloy.co.uk/academy)**

## Further information

If you would like further information about products and services available from Abloy UK, please call **01902 364 500** or email **[marketing@abloy.co.uk](mailto:marketing@abloy.co.uk)**, visit **[www.abloy.co.uk](http://www.abloy.co.uk)**, or visit the Abloy London Showroom at The Building Centre in London.



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**[abloy.co.uk](http://abloy.co.uk)**

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