



EDUCATION

FIRE DOOR SAFETY IN REVIEW

INSIGHT, COMMENTARY, AND SPECIFICATION GUIDANCE
FOR PROFESSIONALS IN THE EDUCATION SECTOR

Briton



THE CURRENT ENVIRONMENT: EDUCATION BUILDINGS

Fire safety plays an integral role in academic environments.

Our Briton experts have extensive experience within the education sector, working alongside people like you to maintain meticulous safety and security standards in learning environments. With reliable fire door hardware and trusted advice on specification, installation and maintenance, we aim to protect your buildings and those who use them.

We understand that for many of those responsible for fire safety in education environments, whether that be architects and specifiers, installers, facilities managers or local authorities, the crucial role of fire doors and fire door hardware is complex. Throughout this guide we aim to highlight some of the key fire safety issues and concerns in UK education settings and provide answers to how we can tackle them together.

Goals and guidance.

We recognise that no educational facility is the same, from small, self-contained primary schools to sprawling university campuses. However, many of the key challenges and concerns associated with fire safety are common.

This guide is focused on fire safety in educational settings; our findings emphasise the key challenges and concerns that must be addressed. Our intention is to provide you with a broader understanding of fire safety and the guidance and legislation you must adhere to, before offering

appropriate advice and suggesting solutions to the problems you may be facing.

For over 115 years, our goal at Briton has been to provide world class door control solutions to ensure safe and functional building environments. Should you need further information on fire door hardware and its specification, installation and maintenance, you can contact our expert advisors or simply head to our website [briton.co.uk](https://www.briton.co.uk).

75% OF FIRE DOORS INSPECTED BY THE FDIS IN 2021 FAILED TO MEET THE REQUIRED STANDARDS.



RESEARCH FINDINGS: SPEAKING TO YOU

Why we've conducted research.

Alarming, the latest investigation from the BWF Fire Door Alliance has revealed almost a third of those responsible for fire door safety do not understand their fire door responsibility under the revised Building Safety Act 2022.

Our experience within the education sector tells us a similar story, with many confused by the latest regulations and unclear on their responsibilities regarding fire doors and fire door hardware. We believe it is important to seek out the opinions that matter - finding real information from real sources, dealing with the reality of operating in live environments.

And so, we set out to speak to a wide range of people within relevant education sector roles. During our research we heard from teachers, building managers and product experts. We spoke to people through in-depth, qualitative research interviews designed to dig deeper into fire safety within these environments. We then supplemented this information with online questionnaires to a wider sample group, helping us gain a deeper understanding of the complex nature of fire safety in education.

HERE'S WHAT WE FOUND:

**OVER
50%**

**ARE NOT AWARE
OF FIRE DOOR
MAINTENANCE
PROCEDURES IN
THEIR BUILDING**

1 IN 10

**DO NOT
KNOW WHO'S
RESPONSIBLE FOR
FIRE SAFETY IN
THEIR BUILDING
OR WHAT THEIR
DUTIES ARE**

2 IN 5

**AREN'T AWARE
OF THE LATEST
IN FIRE SAFETY
LEGISLATION**

**ONLY
52%**

**UNDERSTAND THE
IMPORTANCE OF
RETROFITTING
HARDWARE
PRODUCTS
CORRECTLY**

DIGGING DEEPER: THE IMPORTANCE OF FIRE DOOR SAFETY



//
**WHEN CLOSED, FIRE
DOORS FORM A
BARRIER TO STOP
THE SPREAD OF FIRE.**
//

A fire door is an important element of your building's passive fire protection system, designed to compartmentalise and delay the spread of smoke and fire, protecting property and providing occupants with an opportunity to escape.

Certified fire doors are given a fire-resistance rating, which details the length of time the door and its components can withstand smoke and fire – for example a fire door that provides 30 minutes of resistance will be rated FD30. The rating of the door should reflect the environment where it is fitted. It is therefore critical that each, and every person involved in the process of specifying, installing, and maintaining fire doors understands the importance of fire doors so not to compromise fire safety.

Types of fire doors:

- 1. Fire Door Keep Shut** - self-closing doors used for the passage of people.
- 2. Fire Door Keep Locked** - doors used occasionally and mainly kept locked, such as cleaning supply cupboards.
- 3. Automatic Fire Door Keep Clear** - doors held open or swing-free, but revert to self-closing when the fire alarm sounds.

Types of escape doors:

Usually found on the perimeter of the building, exit or escape doors are the last doors you pass through on the escape route to a place of safety.

- 1. Panic Exit Doors** - found in public buildings with 60+ users (without prior knowledge of operation), operated by a panic device that covers 60% of the width of the door. Tested to BS EN 1125.
- 2. Emergency Escape Doors** - found in non-public buildings with less than 60 users (trained and familiar with the escape drill), operated by push pad or lever handle. Tested to BS EN 179.



IN THE PAST YEAR,
FIREFIGHTERS
RESPONDED TO **907**
FIRES IN COMMUNAL
LIVING FACILITIES,
86.9% OF WHICH
WERE ACCIDENTAL.



FIRE SAFETY RESPONSIBILITY

Damaged, faulty or misused fire doors may not operate as intended and can present a risk to fire safety.

Ultimately, everyone has a part to play in the role of fire safety in a building. However, under the Regulatory Reform (Fire Safety) Order 2005, all educational facilities must designate a Responsible Person (RP) for matters associated with fire safety to ensure the safety of occupants. In most schools, this is the fire safety officer, the head teacher often assumes this role, but



A STAGGERING 40 SCHOOLS A MONTH SUFFERED FIRES IN 2019.



responsibility can be shared between a single person and the local authority or the building's owner. To be responsible for fire safety means providing an in-depth transparent overview of the condition of the building and ensuring all necessary steps have been followed to reduce the risk of fire. This includes maintaining fire detection and alarm systems and familiarising building occupants with emergency evacuation procedures. As part of their obligations, a RP must possess robust knowledge of fire safety.



THE UK FIRE SERVICE IS CALLED OUT TO EXTINGUISH FIRES IN APPROXIMATELY 1500 SCHOOLS EACH YEAR.



In England and Wales, the Responsible Person must be familiar with The Fire Safety Act 2021. In particular, sections one and three of the legislation and update fire risk assessments accordingly.

Section 1 of The Fire Safety Act amends article 6 of the Regulatory Reform (Fire Safety) Order Act 2005, and clarifies that should a building contain two or more sets of domestic premises, the RP must take account of structure, external walls and flat entrance doors as part of their fire risk assessment.

Where as, Section 3 of the Fire Safety Act makes clear that if a RP has followed the article 50 commencement guidance, then they may be able to use evidence of this compliance to demonstrate that they have met their obligations under the Fire Safety Order.

For universities specifically, the Building Safety Bill, passed in April 2022, is designed to raise fire safety standards in multi-occupancy buildings, such as halls of residence. The new bill gives residents more power to hold responsible persons to account for fire safety failings and encourages building occupants to report any faults or damage to fire doors.



ESSENTIAL HARDWARE

In the event of a fire, your buildings fire doors will not perform as intended unless all essential hardware has been correctly specified, installed and maintained.

Fire door components:

A fire door is not just the door leaf. It is a complete assembly comprising:

- > The frame
- > Intumescent fire and smoke seals
- > Glazing
- > Signage
- > Door Hardware - such as hinges, door closers, locks and latches



When it comes to door hardware, the Responsible Person should consider the following:

Hinges:

- > Fire doors must be hung on a minimum of 3 fire certified hinges
- > Hinges must comply to BS EN 1935 and be CE / UKCA marked with a fire identification stamp clearly visible
- > Hinges must be securely held in place with appropriately sized screws
- > Rising butt or spring hinges are NOT permitted for use on fire doors
- > There should be no sign of metal fragments, or oil leakage, these indicators point to worn hinges that will not perform as required and need to be replaced

Locks and Latches:

- > Locks and latches must be fitted with intumescent protection to maintain the integrity of the fire door
- > Latch should hold the door firmly in place without rattling
- > Latch/deadbolt should engage fully into the strike plate
- > Latch bolts or strike plates with metal dust deposits indicate wear and tear and should be replaced

Door Closers:

- > **All fire doors, except those to locked cupboards and service ducts should be fitted with a fire door closer**
- > Fire door closers must be capable of closing the door from any angle of opening and strong enough to overcome the resistance of any latch or seal
- > Door closers should close the door in no longer than 20 seconds
- > Door closers must confirm to BS EN 1154 and/or BS EN 1155 and be UKCA / CE marked
- > Fire doors can be fitted with Concealed, Overhead or Floor Mounted door closers
- > Concealed closers are fitted within the door leaf and frame and use a spring to close the door. It must be fitted with the correct intumescent material
- > Overhead door closers are fixed to the face of the door or frame and close the door from a fully open position

- > Floor spring closers are mounted into the floor screed to close the door
- > Electromagnetic fire door closers hold a fire door in the open position with an electrically powered magnet. Linked to the buildings fire alarm system, when the alarm is activated, the door automatically closes
- > Door closers must be free from damage and not leaking oil



IT IS RECOMMENDED
THAT **ALL ESSENTIAL
IRONMONGERY
SHOULD BE TESTED
BY A THIRD PARTY
SUCH AS CERTIFIRE**



RESEARCH FINDINGS: WHAT ELSE WE FOUND

Understanding fire door safety.

One of the issues the education sector faces, is the misconception towards fire door safety. Our research shows fire doors are often not recognised as part of a building's fire protection system. Fire doors are used without consideration, yet they are much more than a simple piece of furniture and are in fact a critical element of passive fire protection - alongside active fire protection methods such as alarm systems and extinguishers.

Like fire doors, emergency evacuation procedures play an important role in education buildings, where an escape door is the final exit on designated escape routes. As such, all doors found throughout these routes should be 'fire rated' to delay the spread of fire and smoke and allow safe evacuation.

A fire door consists of many components (see page 8), but when it comes to its operation, a fully functioning door closer is essential, as an open door will not contain fire. As such, door closers must pass a series of standardised tests to confirm certification and reliability.

The building's responsible person should always verify accreditations at the product specification stage.

Responsible persons must also understand the needs of the building's users when considering fire door safety. In some cases, in education establishments it is important that fire doors are held open, but in a safe and secure way. With a high volume of staff and students travelling through corridors, the busy nature of schools, colleges and universities can often

lead to fire doors being wedged open to improve ease of access, preventing them from fulfilling their primary function of stopping the passage of smoke and fire and providing an escape route. For high-use areas such as these, the use of electromagnetic hold-open devices that allow fire doors to shut once a fire alarm is activated is recommended. Linked to the building's fire detection system, an electromagnetic door closer will automatically release the door in the case of a fire allowing it to shut firmly into the frame. Cam-action closers with slide arms on the other hand are designed to require minimum effort when opening and closing, easing operation for users, and dramatically reducing the risk of vandalism to ensure a fire door remains functional.



ALTHOUGH OUR HARDWARE
HAS BEEN INSTALLED PROPERLY,
IT IS NOT PRACTICAL IN AN
EDUCATION SETTING **WHERE LARGE**
NUMBERS OF STUDENTS ARE
USING TIGHT CORRIDORS.

DAMAGE AND REPAIRS

Fire doors are just like any other door and often treated as such. Used 100's to 1000's of times each day doors in education settings are subject to high levels of traffic and, as a result, higher levels of misuse and abuse.

Daily use will inevitably lead to wear and tear and damage to fittings or door elements such as the seals, frame and edges, all of which are a vital part of any fire door to prevent the passage of fire and smoke.

Our research found almost half of respondents have encountered issues with fire doors in their buildings, with wear and tear being a common feature. As part of regular fire risk assessments, fire doors should be routinely checked to ensure they continue to function correctly. See our simple, eight-step checklist on page 15 for guidance.



DAMAGED FIRE DOORS ARE A CONSTANT ISSUE; IT COSTS A LOT OF MONEY IN TERMS OF TIME AND MATERIALS.



In education environments, door hardware is often sourced based on cost rather than quality, and this can lead to ongoing maintenance and performance issues. With many students and staff moving throughout the building during the day, poor quality or incorrectly specified door hardware can be prone to damage and abuse. At the beginning of breaks or at the end of the school day, doors found in school corridors and stairways are put to the test as occupants aim to leave the premises quickly. In doing so, doors are often flung open without care causing damage to both the door, its hardware and surrounding walls and frames. Hinges can become loose, overhead door closers can be damaged and doors can be broken – potentially injuring students or teachers in the process. In this situation, when a door is opened quickly, a door closer with backcheck control will slow the door down prior to making contact with a door stop or the fully opened position to prevent or minimise damage.

School corridors can also benefit from electromagnetic hold-open devices, or by combining wall magnets and existing door closers to aid ease of access, reduce unnecessary roughness and safeguard operation in a fire emergency.

Concealed door closers offer aesthetic benefits and are particularly suitable for school environments as they eliminate the possibility of children swinging on them.

The use of higher quality, correctly specified and installed products will not only lower the rate of damage and the costs and time associated with maintenance periods, but also enable buildings to meet the growing demands associated with sustainability, by reducing the rate hardware is damaged and needs replacing.



ALMOST HALF OF RESPONDENTS HAVE ENCOUNTERED ISSUES WITH FIRE DOORS IN THEIR BUILDINGS, WITH WEAR AND TEAR BEING A COMMON FEATURE.



COMPROMISED EVACUATION ROUTES

Escape routes play a vital role in fire safety. Encouragingly, throughout our research, we found all respondents had a clear understanding of the fire evacuation procedures within their buildings and evacuation plans were well documented, communicated and rehearsed.

As outlined in the Regulatory Reform (Fire Safety) Order 2005, there should be one or two alternative short escape routes in a building, leading to a final exit door. It's important to note that the fire exit regulations recommend that there are at least two escape routes in a building, that are completely

independent of each other, as this will ensure there is always a route that occupants can take to evacuate the building safely.

Throughout designated escape routes, the use of fire exit signage is vital as it indicates the quickest route out of the building during a fire. The importance of fire door signage should also not be understated. 'Fire Door Keep Shut' signs must be fitted to both sides of fire doors to ensure they are kept shut. When fire doors are left open - a common occurrence in education settings, where teachers encourage an open environment – if a fire breaks out, they will not prevent the spread of smoke and fire and the safety of pupils, staff and occupants becomes compromised. 'Fire exit keep clear' and 'fire door keep locked' signs are also mandatory where applicable, and 'automatic fire door keep clear' signs are required if a fire exit door opens automatically.

Final exit doors are often fitted with panic exit devices, designed to provide safe and effective escape through the doorway with minimum effort, and without prior knowledge of its operation. Throughout fire risk assessments, responsible persons must ensure that fire doors and their hardware are operating correctly, and escape routes and emergency exits are kept clear and without obstruction, as failing to do so could jeopardise a quick escape.

**OUR EXTERNAL
FIRE EXIT DOORS
FELL OUT OF
THE FRAME.
THE DOORS WERE
NAILED CLOSED
FOR OVER
6 WEEKS BEFORE
REPLACEMENTS
WERE INSTALLED.**



RETROFITTING IN EDUCATION ENVIRONMENTS: HOW TO APPROACH A RETROFIT PROJECT

In busy education settings, where fire door equipment is misused and abused, door hardware can become damaged, risking the integrity of the building's fire safety.



Karen Trigg Dip GAI
Business Development Manager,
South East and specialist on door
hardware specification.

Approached professionally, a retrofit project can make a considerable difference to a building's operation, but only when completed with high quality, like for like alternatives.

Retrofitting with sub-standard door hardware components may result in:

- > A fire door not performing as intended or as it did when it was originally fire tested;
- > A breach of Regulatory Reform (Fire Safety) Order; and/or
- > A rise in additional costs - associated with replacing the upgraded component that performs worse than the original hardware.

Here's how we recommend approaching a retrofit project:

1. Identify the problem: Understand why your hardware needs replacing. Is it damaged? Or perhaps unsuitable in its setting? Your replacement hardware needs to act as a solution, so it's key to recognise the problem and how your replacement hardware will solve it.

2. Professional specification: When it comes to selecting new hardware, your decisions must be well informed. Recognise the weight of your choices and ensure your selected replacement is of high quality, durable and suitable for application.

3. Precise installation: In accordance with standards, your new product must be fitted to the manufacturer's instructions and not just the existing fixing positions. For example, fitting to the same plane as the closing device will prevent the door leaf from warping.

4. Follow the Golden Thread: Throughout your project, refer to the Code for Construction Product Information (CCPI) for clear, accurate and up-to-date product information. Your selected door hardware must conform to UKCA and CE certifications and the associated declaration of Performance (DOPs) to show the product conforms to the correct standards.

If you have any doubt or are uncertain about retrofitting, speak to one of our experts for assistance.



78% OF OUR EDUCATION RESPONDENTS STATE SUSTAINABILITY AND PRODUCT TRACEABILITY IS IMPORTANT TO THEM AND THEIR BUILDING.



HOW TO SELECT THE RIGHT DOOR CLOSER



1. Establish whether your door is a **fire** or **non-fire** door

For fire doors, it's required that the door closer is fire tested to EN 1634, and UKCA & CE marked to EN 1154 for mechanical variants and EN 1155 for electromagnetic hold-open variants. It's also key to ensure you are making your selection based on the needs of your application.

If the door is a non-fire door, any closer can be selected. However, it's important to ensure the operation of the door is controlled, as this will prevent future damage to the door and frame. If the door is slamming, make sure the door and frame are installed correctly as door closers will not overcome a poor door installation.



2. Look for the **fire rating**

This is a vital step in the process. If you're installing a unit on a fire-rated door the closer must also be fire-rated. Look for a door closer that's UKCA & CE marked. This shows the product is fit for purpose and meets all of the legal fire safety requirements.



3. Determine the **size of door closer** that you need based on the **height and weight of the door**

Unusually high and heavy doors, or doors located in windy or draughty environments will require a closer with a higher power size in accordance with EN 1154. If you're unsure about sizing, it's best to choose a unit that can be adjusted during installation. It's also key to remember that fire doors must have a minimum Power Size EN 3 to conform to EN 1154 standard.



4. Decide whether you need a **surface-mounted** or **concealed** unit

Surface mounted closers are the most durable and common type of door closer. Mounted to the surface of the door or frame, they are simple and easy to install. Concealed door closers on the other hand, provide the functionality of a surface mounted closer, but are fitted within the door leaf and frame, and hidden from view enhancing aesthetics.



5. Review the **mounting** requirements

Door closers can be mounted in different ways depending on the applications for which they are being used. The 4 most common ways in which to fit a door closer are:

- Figure 1 Regular fixing (where the closer body is mounted on the pull face of the door).
- Figure 61 Transom mount push side (where the closer body is mounted on the push side of the door).
- Figure 66 Parallel mount push side (where the closer body is mounted on the push side of the door).
- Slide track fixing (where the closer with slide arm and track is door on the pull or push side of the door).



6. Evaluate whether **backcheck** is needed

Door closers with adjustable backcheck control the speed of the door slowing it down prior to making contact with a door stop or the fully opening position. Essentially, the function prevents or minimises damage to the door, hardware and adjacent walls caused by the door being flung open or caught by a gust of wind. Always check the Declaration of Performance (DoPs) and certification to make sure the closer has passed UKCA & CE standard EN1154.



7. Decide whether your closer should have **delayed action**

A delayed action closer offers a period of delay (which can be set for a maximum of 25 seconds) from when the door is opened to when it begins to close. This makes them ideal for environments that require easy passage, such as doors used by children, the elderly or wheelchair users.

Again, always check the DOPs to make sure that they have passed UKCA & CE Standard EN 1154 or EN 1155 for electromagnetic hold-open variants.



8. Compare **finish** options

Look for a closer that matches or complements the rest of your hardware. By matching your hardware selections you can add to the visual aesthetics of the room and the building.

For further support on selecting or installing Briton door closers email: technicalsupportuk@allegion.com

4 THINGS TO CHECK FOR FIRE DOOR CLOSERS

1



Certification

It is recommended that a minimum **power size 3** door closer is used on a fire door and the closer is **UKCA / CE marked and fire rated**.

Remove the cover or slide the trimplate to check for the UKCA / CE logo and EN 1154 classification code marking.

Make sure the closer has been tested and UKCA / CE marked in the position it is fitted (ALWAYS refer to manufacturer instructions).

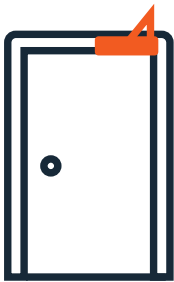
2



Operation

Release the door from the fully open position and ensure the door closes correctly into the frame.

3

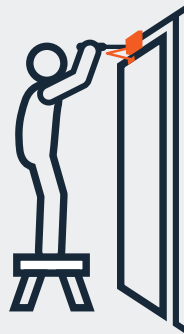


Latching

Open the door to 5 degrees or 75mm (3 inches). Check that the closer **shuts the door onto the latch**.

If necessary:
- check closing and latching speeds are correctly set.

4



Maintenance

Door closers should be checked weekly and adjustments made where necessary.

Still in doubt, or in need of replacement hardware?

Call us on **0330 8080 617**

ARE YOUR FIRE DOORS SAFE

THESE **SIMPLE CHECKS** COULD SAVE LIVES



1 Door Furniture

- Is the door handle loose or missing?
- Are all screws present and tight?
- Does the handle operate smoothly and freely return to horizontal position?
- If on an escape route does the door open in the direction of travel and without the use of a key?

2 Hinges

- Are there a minimum of 3 hinges with all the screws fitted securely?
- Are the hinges free of metal fragments and oil leakage which could be signs of wear?
- Are the hinges marked with a UKCA / CE stamp or BS EN 1935?

Note! Make a note of any fire door that is only hung on two hinges.

3 Locks and Latches

- Is the door furniture firmly fixed and working correctly?
- Does the latch hold the door firmly in place without rattling?
- Does the latch/deadbolt engage fully into the strike plate?
- Are there any metal dust deposits on the latch bolt or strike plate?

4 Door Closers

- Does the door fully close and shut tight by use of its own self closing device?
- Open the door to 5° or 75mm. Does it close and engage the latch?
- Is the closer correctly fitted to the door and frame?
- Is the closer free from damage and not leaking oil?
- If unlatched, does the closer hold the door in line with the frame and intumescent seal?

5 Hold Open Devices

- Is the electromagnetic hold open device operating correctly and releasing the door when the fire alarm is activated?
- Make sure that door hold open devices is not straining the door against its self closing device.

6 Signage

- Are 'Fire Door Keep Shut' (or Closed) signs fitted to both sides of the door?
- Are 'Automatic Fire Door Keep Clear' signs fitted to all fire doors with hold open devices linked to the fire alarm system?
- Are 'Fire Door Keep Locked' signs fitted to doors without self-closing devices such as cleaner's cupboards, store rooms and service ducts?

7 Exit Devices

- Is the panic or emergency exit device functioning correctly?
- Are all exits free from ties or restrictions of escape?
- Are the fixings of the operating device, bolts and strikes tight?

8 Door Seals

- Are the intumescent and/or smoke seals in good condition, intact and undamaged?
- Are the seals continuous around the frame or door leaf?
- Are the seals well attached inside the groove in the frame or door leaf?

**Still in doubt, or in need of
replacement hardware?**

Call us on 0330 8080 617

A FOCUS ON SCHOOL BUILDINGS

WHY FIRE SAFETY SHOULD BE A PRIMARY CONCERN FOR SCHOOLS.

The UK Fire Service is called out to extinguish fires in approximately 1,500 UK schools per year, disrupting the education of thousands of students, causing economic strain through physical building damage and, most significant of all, compromising safety.

In line with this, in 2021 the government began a period of consultation on proposed revisions to its non-statutory fire safety guidance in schools. The Building Bulletin 100 (BB100), first introduced in 2007, gives thought to school building design and advises on how to minimise the spread of fire and make the structure adequately resistant to fire.

Many have raised concerns towards the guidance, specifically for “falling short” on active fire protection methods such as sprinklers - which in newly built school facilities have seen a reduction in installation from 70% in 2007 to around 15% today. With this renewed focus on legislation, passive fire protection methods, such as fire doors and their hardware, must also be

considered as part of a complete, fire safety package.

Legislation and liability.

As the Department of Education seeks views on the revised BB100 reform, decision makers must be proactive in improving the fire safety standards within their own school buildings. Fires are unpredictable, beginning in and out of school hours and across various areas of the premises, from food tech rooms to chemistry labs where combustible materials are held. Arson is also a common offence, accounting for up to 70% of incidents in school environments for some local authority fire brigades.

In the event of a fire, should a school be considered unsafe or in breach of the Regulatory Reform (Fire Safety) Order 2005, it is in danger of receiving heavy penalties and fines. Not to mention the risk of a damaged reputation.

To remain compliant, decision makers must approach fire safety

as a continuous process, routinely managing all areas of fire safety within their facilities to be prepared for all contingencies.

This is demonstrated in the Regulatory Reform (Fire Safety) Order 2005, where it's stated all workplaces must designate a Responsible Person (RP) to ensure their building is prepared in the event of a fire. Often, within education environments, this responsibility can be shared. In local authority schools for example, accountability can be shared between headteacher and the authority, and in private or independent schools, the responsibility often lies with the building owner. As part of their obligations, the RP must manage the ongoing compliance with fire safety legislation, while ensuring fire systems and procedures, including fire drills, are uncompromised. Additionally, the RP must possess a robust knowledge of fire safety to manage and perform regular fire safety risk assessments.





Sue Corrick
UK Product Marketing Manager
and key advisor on specification
and compliance in education.

Ongoing protection.

Good management of fire safety is essential to ensure that fires are unlikely to occur, and if they do, they are controlled or contained quickly so that everyone in the building is able to escape safely.

A fire safety risk assessment is designed to help identify fire hazards within educational premises. As part of the risk assessment, the RP must inspect everything from fire-fighting equipment and fire doors to staff training and pupil understanding towards fire procedures. As highlighted by the Cheshire Fire and Rescue Service, a fire risk assessment consists of five steps:

1	Identify the people at risk
2	Identify all potential fire hazards
3	Evaluate the risk
4	Record the findings
5	Review and revise

Under 'Step 3', fire protection systems are assessed, including fire detection methods and emergency escape routes. Escape routes are fundamental in the event of a fire and rely upon passive fire protection methods, such as fire door sets, that require ongoing assessment and maintenance to ensure they are working correctly.

Under The Fire Safety Order 2005, fire doors in the education sector are a legislative requirement and form a critical role in providing a safer educational environment. Emergency exits conclude escape routes and

should be assembled with 'fire rated' doors, which can be rated to FD30 or FD60, and will delay the spread of smoke and fire by 30 and 60 minutes respectively. As part of the risk assessment process, the correct location of all fire doors - whether FD30 or FD60 - is determined based on the risk of the area (FD60s are more likely to be installed in kitchen areas for example).

All fire doors should also display the appropriate signage, with a British Standard sign attached to the face of the door on both sides for Fire Door Keep Shut and Automatic Fire Door Keep Clear signage (1.5m from the floor). Above all else, they must operate as intended. Should a fire break out, it's vital that fire doors close fully independently, and their hardware - including hinges, handles, door closers, locks and signage - is correctly installed and maintained. Upon inspection of a fire door, the RP must review the certification, gaps, seals, hinges and the closing elements to ensure all is functioning appropriately. Passive fire protection is described as the backbone of fire safety, and so, should a fire door be identified as defective, it's imperative that the issue is resolved swiftly and professionally to retain the integrity of the escape route and compartmentation.

Fire doors and their hardware are just one element of a successful fire safety strategy, and thus one stage of a fire risk assessment. Yet, these simple, routine checks can help save lives and livelihoods. It's true, fire safety is a significant responsibility, and it's one that should never be overlooked.

SPECIFICATION GUIDANCE FOR EDUCATION BUILDINGS

THE KEY TO SAFE **DOOR CLOSER** SELECTION

Every educational establishment needs to offer safe, accessible buildings for its students and staff. When it comes to door closing, controlled door closers are the ideal solution, delivering a host of benefits that make them particularly suitable for fire doors and general application in schools, colleges and universities. They are also ideal for student accommodation buildings.

For education facilities looking to foster an open environment, holding doors open allows restriction-free movement through corridors and helps to prevent fire doors getting damaged. An electromechanical hold open closer is designed to keep fire doors open in a safe manner and linked to the building's fire alarm system, in the event of a fire, if power is cut, the closer firmly shuts the door into its frame.

For this, we recommend:

BRITON 2700BD.TE

Cam action track closer



- > Adjustable power size EN 2-5
- > Door mount Pull side/Transom push side mounting (2720B) and Door mount Push side/ Transom pull side mounting (2721B)
- > Adjustable closing speed and FAST power adjust dial to allow easy power adjustment to suit door conditions
- > UKCA & CE marked to EN 1154 & EN 1155
- > Built-in adjustable backcheck, delayed action and hold-open functions
- > Self-adhesive fitting template to ensure a quick, simple and accurate installation
- > Suitable for doors up to 1250mm and 100kg



In pre-school and primary school settings, where students are smaller and require ease of operation, a cam action closer is ideal. Cam action closers are designed to require minimum effort when opening and closing the door and can assist in the ease of movement for younger students.

For this, we recommend:

BRITON 2300

Cam action track closer



- > Adjustable power size EN 2-4
- > Door mount Pull side/Transom push side mounting (2320B) and Door mount Push side/ Transom pull side mounting (2321B)
- > Adjustable closing speed and FAST power adjust dial to allow easy power adjustment to suit door conditions
- > UKCA & CE to EN 1154 & EN 1155
- > Built-in adjustable backcheck to prevent damage to the door and frame
- > Self-adhesive fitting template to ensure a quick, simple and accurate installation
- > Suitable for doors up to 1250mm and 100kg



Concealed cam action closers allow easy access for less able users whilst maintaining the closing forces needed for fire safety. Hidden from view these closers are ideal for applications such as school corridors as they reduce the temptation for tampering or vandalism.

For this, we recommend:



BRITON 2420B.T

Concealed closer

- > Adjustable power size EN 2-4
- > UKCA & CE marked to EN 1154
- > Capable of meeting BS8300 requirements for use on accessible routes
- > Adjustable closing speed and latch action

- > Suitable for doors up to 1100mm and 80kg



Door size chart - EN 1154

It's important to select the right door closer for your application. For fire door usage refer to Certifire certificates for details.

EN Closer Size	Recommended Door Sizes	
	Maximum Door Width	Maximum Door Weight
1	750mm	20kg
2	850mm	40kg
3	950mm	60kg
4	1100mm	80kg
5	1250mm	100kg
6	1400mm	120kg
7	1600mm	160kg

IMPORTANT: For fire door applications, power size 3 is a minimum requirement.

	UKCA Marked to EN 1154 & EN 1155.		CE Marked to EN 1154 & EN 1155.
	Certifire approved.		Capable of meeting BS8300 approved Document M requirements.
	Fire tested to EN 1164 to achieve a rating on timber and metal doors.		Tested to ISO 14025 and EN 15804 environmental product declarations.
			

Fixing Applications Guide

Most Briton door closers are supplied Tri-pack with the necessary brackets and fixings to enable them to be fitted in any of the applications below.

Figure 1 Regular fixing**

Closers are door mounted on the pull or opening face of the door.

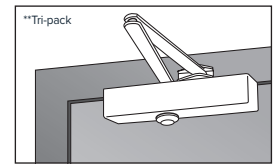


Figure 61 Transom mount push**

Closers are transom mounted on the push or closing face of the door.

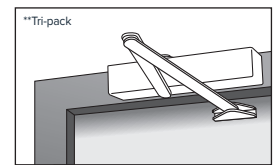
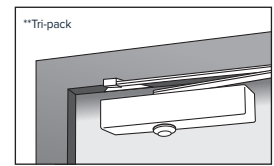


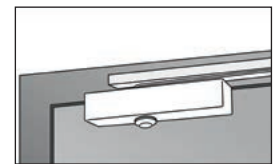
Figure 66 Parallel fixing application**

Closers are mounted on the push or closing face of the door.

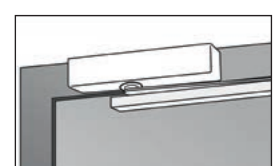


Slide Track Fixing

Closers with slide arm and track can be door or transom mounted on the pull or push side of the door.



Tracks can be mounted on the face or underside of the transom when mounted on the push side of the door.



When it comes to educational facilities, budgets can sometimes feel all-encompassing. If your budget is tight, consider opting for a cheaper finish on your door hardware. A silver finish is more cost effective than stainless and the quality of your closer is not compromised. For any fire rated rebated double doorsets, you will also require a door co-ordinator.

SPECIFICATION GUIDANCE FOR EDUCATION BUILDINGS

THE KEY TO SAFE **EXIT HARDWARE** SELECTION

In an emergency, evacuating a building needs to be as simple as possible. Once building users have found an emergency exit, it is essential that they can open doors easily so that everyone can leave safely.

Panic hardware is designed to provide safe and effective escape through doorways with minimum effort and is used in facilities where building users may not be familiar with exit routes.

Panic bars, covering at least 60% of the overall door width and certified to EN 1125, are very effective in education establishments where large numbers of people are attempting to travel at speed through a fire exit.

For this, we recommend:

BRITON 377

Push bar panic exit device



- > Suitable for use on fire & smoke doors 1330mm to 2600mm wide and up to 2500mm high
- > Comprises of Briton 376 vertical panic bolt, 378 reversible rim panic latch and 378DDS double door strike in one convenient pack

- > Three-point locking for extra security
- > Anti-thrust device, prevents forced latch retraction
- > Adjustable top & bottom shoots



For this, we recommend:

BRITON 378

Push bar rim panic latch



- > Suitable for use on fire & smoke doors 665mm to 1300mm wide and up to 2500mm high
- > One point locking for security
- > Rim panic latch with single point locking

- > Suitable for single doors and double rebated doors when used in combination with Briton 376 panic bolt and 378DDS double door strike



In spaces where opening width is limited, a non-intrusive touch bar can be practical. Its application is ideal for sports halls where minimal protrusion is required to prevent injury to anyone who is using the sports facility.

For this, we recommend:

BRITON 570

Touch bar panic exit latch











- > For single and double non rebated doors
- > Suitable for use on fire & smoke doors up to 1300mm wide (minimum clear opening width down to 500mm – can be reduced to 350mm where side latches are not required)
- > Non handed for maximum flexibility
- > Grip on touch bar to allow the door to be pulled closed
- > Push bar and shoots can be cut on-site to suit door width and height



In education environments, you may also wish to gain access from the outside of any panic escape door.

Outside access devices can be installed with Briton panic hardware, with cylinders suitable for any existing system within the building.

 Located in a PUBLIC AREA - Certified to EN 1125.	 Located in a NON PUBLIC AREA - Certified to EN 179.
 UKCA Marked to relevant BS EN Standards.	 CE Marked to relevant EN Standards.
 Certifire Approved.	 Fire tested to EN 1634 to achieve a rating on timber and metal doors.
 Tested to ISO 14025 and EN 15804 environmental product declarations.	 Level of security (1-3) 1, 2 or 3 point locking.

Need Access from Outside?

For single and double doors (fitted to the first opening leaf)

- > Lever or knob operated version.
- > Supplied with 40mm euro profile cylinder as standard (available masterkeyed or keyed alike).
- > Self-handed or site reversible.



1413.LE



1413.KE



OUR EXPERTISE

Since 1907, Briton has been synonymous with trusted door control performance, delivering unrivalled consistency and convenience to customers.

Over a century later, Briton continues to provide safe and functional building environments, offering customers true peace of mind with highly durable, highly engineered solutions, each designed to endure constant use in demanding settings.

Today, Briton is proudly evolving, building upon its trusted heritage, with a group of trained experts who are skilled in guiding you to the most appropriate hardware solutions for the education sector, considering performance, certification, aesthetics and budget.

Through innovation, our solutions continue to expand on the brand's core principles of trust, performance and convenience – providing lasting quality and reliability where it truly matters.

Briton has a wealth of resources to help professionals undertake product selection, installation and maintenance checks on fire doors and their hardware. For further guidance on product selection and installation, please speak to our trusted advisors by calling **0800 834102**, emailing technicalsupportuk@allegion.com or visiting briton.co.uk.



About Allegion

Allegion (NYSE: ALLE) is a global pioneer in seamless access, with leading brands like CISA®, Interflex®, LCN®, Schlage®, SimonsVoss® and Von Duprin®. Focusing on security around the door and adjacent areas, Allegion secures people and assets with a range of solutions for homes, businesses, schools and institutions.

For more, visit www.allegion.com

AXA ■ Brio ■ Briton ■  CISA ■ LCN ■  SCHLAGE ■ VON DUPRIN

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