



Fact Card 5 – Maintenance

Fire Door Maintenance and Inspection

The Importance of Fire Door Inspections

Just like any passive or active fire protection system, it is essential for a fire door to perform its vital task in the event of a fire. As with any similar life-saving product, a fire door should be regularly checked to ensure it functions properly and is ready to use. It is exactly the same as testing the battery of a smoke alarm or having the pressure of a fire extinguisher checked regularly.

Most of the time, a fire door is used like any other door, and is subject to the day-to-day wear and tear of opening and closing as people pass through. The building and the surrounding environment can also change and affect the door. It is important to check if regular use or changes to the surroundings affect it in any way.

Periodic checks should be carried out at least once every six months. Newly occupied buildings may require more frequent checks in the first year of use. Where a door is heavily used, it should be checked more frequently than other doors in the building. E.g. once per week/month (depending on usage).

Any slight alteration to the door or its surroundings can affect the performance of the door. This can result in a half-hour fire door lasting a lot less.

The Regulatory Reform (Fire Safety) Order 2005

Article 17 of the Regulatory Reform (Fire Safety) Order 2005 (RRO/FSO) makes it a legal requirement to ensure that fire resisting doors and escape doors are correctly installed and adequately maintained in order for them to be fit for purpose.

The Regulatory Reform (Fire Safety) Order 2005, often referred to as the RRO or FSO, applies to all buildings other than domestic housing, and replaces 118 pieces of previous fire legislation, including the old fire certificate. The law now shifts responsibility from the fire authorities for fire safety to whoever has day-to-day control of premises.



Each business must appoint a “responsible person”, whether it be the owner, manager, facilities manager or an expert consultant to manage the fire risk to the building, including those using the premises and its immediate surroundings.

The emphasis of the RRO/FSO is on preventing fires and reducing risk. The Department for Levelling Up, Housing and Communities (DLUHC) which is responsible for the legislation, divides all non-domestic buildings in to 11 sections, producing a detailed guide for each. The guides are developed to inform the responsible person how to comply with the RRO/FSO by helping to carry out a fire risk assessment of the building and identifying the fire precautions which need to be implemented. They have been written for people who have limited training and experience in undertaking a risk assessment, but if you are unsure on how to complete it, you should contact a trained professional.

The authorities have the power to enforce the RRO/FSO and do prosecute or even close buildings down where breaches are discovered. Building owners need ‘competent persons’ as referenced in the RRO/FSO to help them comply with fire door regulations.

Failure to comply with the FSO or RRO can place property and lives at risk and is likely to result in criminal prosecution.

For further information on the Regulatory Reform (Fire Safety) Order refer to our Fire Safety Order Fact Card 2

Fire Door Maintenance Checklist

Door leaf and frame

The door and frame must remain square and should not be able to distort between the stiles, top and frame.

The gaps must not be greater than those specified in the manufacturer’s installation instructions. This is also true for the meeting stiles of double doors.

If the door leaves have minor surface damage, then these can be repaired. However, if there are any major defects in either the door leaves or the frame, they must be replaced by a certificated manufacturer.

Glazed apertures

If the glass is cracked or broken, then it must be replaced immediately. This operation should only be carried out by a trained and competent individual, with a good working knowledge of the specific materials and glazing system required. If it is not replaced then in the event of a fire, the smoke and gases will travel through the glass, which means that the fire door will not last its fire rating.

Intumescent fire and smoke seals

If seals have been badly fitted or are damaged, then they must be replaced with the same type that was originally specified. If the smoke seals have to be replaced, then they should be fitted in one continuous length if possible. If fixed piecemeal, they could potentially leak at the joints. You must remember that loose smoke seals left flapping can damage a fire door beyond repair.

Closing and opening devices

With a self-closing device, open the door fully and check it closes without binding on the floor. Open the door to approximately 5 degrees and again check that it closes fully, overcoming any latch or seal. Check door closing speed to be approximately 10 seconds from 90 degrees and ensure that the door does not slam. Adjust speeds as necessary. Ensure that doors are not being wedged open.

Make sure that door hold-open devices are not straining the doors against their self-closing devices. A closer fitted at the top of the door should have the hold-open device fitted at the top of the door. A floor spring at the foot of the door should have the hold-open device fitted at the bottom.

Check that mechanical hold-open devices have not been fitted. Hold-open devices on fire doors should be electro-magnetic and connected directly to the fire detection and alarm system, so that they can be released automatically if there is a fire. If fitted, make sure that any electro-magnetic hold-open device is operating correctly and releases immediately when power is removed. Doors with hold-open devices need to be checked daily.

All ironmongery

Make sure that all fixings are secure. Some hinges, closer arms and locks might require lubrication. REMEMBER, where required YOU MUST REPLACE COMPONENTS LIKE-FOR-LIKE, ACCORDING TO THE ORIGINAL SPECIFICATION.

- Hinges – Check that there is no visible wear. Any dark marks or stains around the hinge knuckle could indicate wear and impending failure, meaning the hinges should be replaced as soon as possible.
- Locks and lever handles – Check that the levers fully return to the horizontal after use and that the latch bolt is engaging smoothly and completely into the strike. Wipe any metal dust deposits off the latch bolt and strike plate. Adjust, lubricate or replace as required.

Mandatory safety signs

BS5499-4:2013 lays down standards for the size and siting of Fire Door Safety Signs. Signs should be fitted on all non-domestic fire doors and be visible at eye level.

Disclaimer:

Note: Whilst every effort has been made to ensure the accuracy of advice given, the BWF cannot accept liability for loss or damage arising from the use of the information supplied in this publication.



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If these have been tampered with or removed, they must be replaced.

Cleaning

Fire doors are finished with a variety of facings which require different methods of cleaning. The manufacturer's instructions will give full details. You must ensure that the certification bodies certification mark such as a label, plug or tag is visible on the door. You will find it either on top of the door, or just below the bottom hinge if it is a doorset. This must never be tampered with in any way, including painting over it, as doing so will invalidate the certification. In this situation, contact the manufacturer directly and inform them so they can act accordingly. The building managers should have their details on record.

Fire Door Installation - Follow the instructions

- Every fire door produced by a BWF Fire Door Alliance Fire Door Scheme Prime Door Manufacturer is supplied with the Installation, Care & Maintenance Instructions. These instructions will tell you how and when to maintain that particular door.
- As a helpful guide to some of the most important points to be considered, in this Fact Card we have the key areas you should include in your periodic maintenance checks.
- Where there is a high occupancy use in buildings, the BWF recommends the setting up of a team to carry out regular inspections on the issues raised by this Fact Card.