



Update on Recent Government Notice on Fire Doors from MHCLG

The current situation

We are aware that Ministry of Housing, Communities and Local Government (MHCLG) have written to Heads of Local Authority Building Control and Approved Inspectors regarding fire doors advising that they seek confirmation that "test evidence is presented of exposure to fire for both sides of the door, to demonstrate compliance with the requirements of Approved Document B".

This has caused some confusion and many projects have been delayed, or deliveries have been returned, as members are tasked by their customers to provide evidence in accordance with the Government's statements. We are concerned that this is not only delaying projects, but also putting members of the public at risk as critical fire safety improvements are being prevented.

Firstly, we believe that concerns raised by MHCLG that have resulted in the production of this advice note are based on a limited amount of testing on predominantly composite doorsets. The letter issued by MHCLG does not give detail on the specification of the doors that have been tested or the mechanism of failure. We have been advised that it is the intention of MHCLG to do some testing on timber doorsets as a next stage of their investigation.

What has changed?

MHCLG are requesting that Building Control Bodies check that test evidence is presented of exposures to fire for both sides of the door in order to demonstrate compliance with requirements of Approved Document B. MHCLG have not, clearly, limited the advice to any one particular type of door construction.

In raising this note MHCLG have called into question the widely adopted methodology of testing any symmetrical timber door from the most onerous side and extending the scope of application of the test evidence, to cover the door designs for fire resistance from both sides by way of assessment.

How does this impact timber doors and my certification?

This methodology of testing and assessing fire resisting doors has been in place for many years and is given as an approach in BS 476: Part 22: 1987 and BS EN 1634-1 when deciding on what direction to test a particular design of fire door (so it is the standard in the UK and across Europe). It is most clearly stated in Annex C of BS EN 1634-1, composite doors are specifically excluded from the rules for direct application.

Assessments of performance are listed as an acceptable approach to supporting the performance of products in Appendix A paragraph 1b in Approved Document B.

All of the testing bodies and certification bodies (to our knowledge) have to date assessed systems using the methodology described above, and therefore the vast majority of assessments supporting the scope of application for fire resisting doors are based on exposing the most onerous side of the door, so as to determine whether the fire resistance performance of the door assembly is adequate in both directions.

Certifire provide further clarity on the Fire Resistance Test Requirements in Technical Schedule 10 (see clause 6 Pg 13). This document is available for <u>public download here</u>.





What are we doing?

We have been in close dialogue with MHCLG since the issue of this note and a number of other industry groups and we continue to press for greater clarity ensuring that MHCLG have a fuller understanding of the technical basis of the established approach. At this stage we recommend engaging with Building Control Bodies as early as possible in the project to confirm that the supporting test evidence and Certifire documentation is sufficient to substantiate the fire resistance of the product being supplied to site.

We remain of the view that relying exclusively on a test report is a retrograde step. Third party testing of fire performance as part of a UKAS accredited and transparent certification process that demands, audit testing and regular factory audits of your manufacturing facilities (with clear traceability to provide an effective safety net), is the way forward in terms of seeking to ensure that compliant products are placed on the market, and offering added assurance to all parties, including consumers.

Dealing with enquiries

Following an enquiry regarding the Government's announcement refer the enquirer to a copy of your corresponding CERTIFIRE certificate and datasheet which are designed to demonstrate that your doors have been rigorously tested and assessed via a transparent criterion to demonstrate compliance with BS476 Part 22 and that your production has been independently audited and products supplied subjected to regular audit fire tests to demonstrate consistency of manufacture.

We should never forget that Fire Doors are potentially lifesaving products – all members should continually conduct a risk assessment of any products that you are supplying (or have supplied in the recent past) to ensure that the products are fully compliant with supporting test evidence.

Further information

Government announcement can be found here https://www.gov.uk/government/news/action-to-address-recent-fire-door-issues

The circular letter to Heads of Building Control in England can be found here https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/731053/Fire_door_tests_circular_letter.pdf

The modified letter to Heads of Building Control in Wales can be found here https://gov.wales/topics/planning/buildingregs/circulars/building-regulations-circular-wgc-009-2018/?lang=en





Annex C from BS EN 1634-1 C.2.2 Timber leaves hung in timber frames

C.2.2.1 Integrity performance

C.2.2.1.1 Leaf/frame interaction

As timber shrinks when it burns, the fire side of the leaf attempts to shrink in relation to the non-fire side resulting in a timber leaf tending to bow towards the fire at the top and bottom edges. The door frame will attempt to behave similarly, but because it is fixed to the supporting construction and is generally of thicker and/or larger section timber and therefore stiffer, the frame may not move as much as the leaf in a test. See Figure 34.

If the door leaf opens towards the fire, then as described above, the top and bottom edges of the leaf will attempt to bow towards the fire and thus away from the door stop. This provides the opportunity for the passage of flames and hot gasses from the furnace to escape, aided by positive pressure from within the furnace causing integrity failure. If the door opens away from the fire, then the top and bottom edges tend to bow towards the fire and towards the stop which tends to aid the performance of the doorset.

C.2.2.1.2 Supporting construction

A rigid supporting construction such as described in EN 1363-1 will tend to restrain any bowing of the door frame, whereas a flexible supporting construction such as that described in EN 1363-1 will attempt to distort a timber doorframe in the opposite direction from which it would naturally want to move as discussed above. However, because most timber doorsets have a frame which is of sufficiently large cross section so that they do not bow in their own right and are strong enough to resist the forces induced by a flexible supporting construction, the choice of supporting construction is of less importance when considering the weakest direction in test.

C.2.2.2 Insulation performance

The dominating factor on the insulation performance will be that timber based leaves and frames are inherently insulating and therefore the insulation performance is unlikely to vary significantly whichever way the leaf opens.

C.2.2.3 Summary

For evaluating a timber leaf hung in a timber frame, a test with the leaf opening towards the fire is the most onerous condition for the integrity criterion. There is no particularly onerous direction with respect to the insulation criterion.

The effect of rigid versus flexible supporting constructions is not significant with this type of door assembly. It therefore follows that tests in rigid standard supporting constructions are applicable to flexible constructions and vice versa

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