

# Removal of BS 476 Are we awake to the implications?



Without any fanfare, in December 2022 the Government made an announcement of real significance to the construction industry – the proposal to axe BS 476 from the updated Approved Document B and replace it in all legislation with its European counterpart, BS EN 1634. It's a proposal that has significant implications for

many supply chains and we thought it warranted closer examination via one of our webinars. We are clearly not alone in our concerns, as over 250 people tuned in to listen to industry experts discuss the implications of removing the BS 476 standard.

## Webinar panel



**Neil Smith**  
Technical & Compliance  
Associate Director, Rutland



**Ben Bygrave**  
Commercial Business  
Development Manager,  
Rutland



**Chris Waterman**  
Public Policy Advisor to the  
House of Lords



**Jerry Quayle**  
Specialist Consultant:  
Passive fire resistance



**Richard Kowalski**  
Technical Manager,  
Stairways Group



**Russell Day**  
CEO, Association  
of Composite Door  
Manufacturers (ACDM)

## What are BS 476 and EN 1634?



British standard 476 dictates the appropriate fire tests for the elements of structure and materials that make up a building and grades the level of fire resistance. Different parts of the standard relate to different elements or performance characteristics, e.g. part 22 has particular relevance to fire doors.

EN 1634-1 is a European standard that is applicable to fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware. It has been adopted within British Standards and, as such, is referred to (ingeniously) as BS EN 1634-1.

To watch the highlights, visit:  
[www.tinyurl.com/bs476highlights](http://www.tinyurl.com/bs476highlights)

Webinar highlights:  
Exploring the implications  
if BS 476 is removed



## What exactly is being proposed?

The Government is proposing to remove the national classification system for construction products (BS 476 series) - including Class 0 – and require all relevant construction products to be tested to the British Standard version of the European Standard instead. It is proposing a 12 month transition period following the implementation date, to allow for disruption to businesses and capacity issues around testing, and has estimated that it will cost £9m across an identified range of construction products over ten years. The proposal is currently under consultation, with interested parties being asked to submit their views by 17th March.

## History of BS 476 and the rationale for removing it

Since the early 2000s, England has been following a dual approach to performance classification for reaction to fire and fire resistance of construction products, with BS 476 running alongside BS EN 1634. The Government rationale for discarding BS 476 is that the longstanding use of the European Classification EN 1634 (known as BS EN 1634 within the British Standards framework) has effectively removed the need for the national classification to remain in use, and that it would be simpler to use what it says is the more robust and internationally recognised European Standard, EN 1634. In addition to this, the national standards came under considerable scrutiny during the Grenfell Tower Inquiry (particularly the BS 476 series) and were deemed to have “potential flaws”.

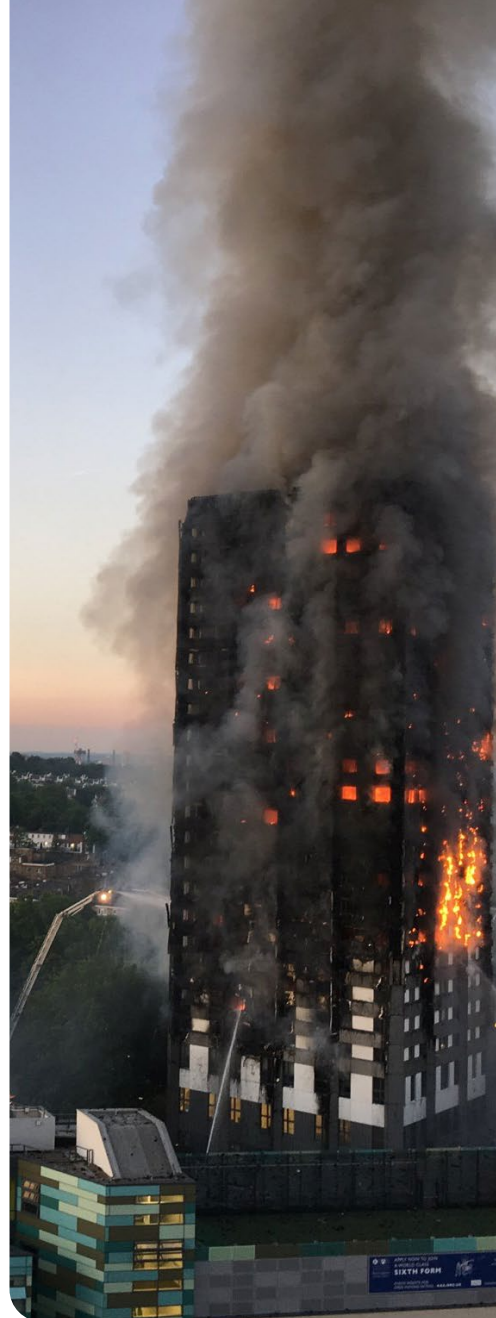
The Government points to the fact that the BS 476 series standard has not been reviewed in detail for about 30 years and that running a dual system was, in effect, a transition of sorts. Recent changes to Approved Document B have also emphasised the use of the BS EN 13501 series of tests over the use of national classes (BS 476).

Although the Government states that most businesses currently have their products tested to the international standard, they have identified some construction products that tend to still use national classification, and one of these is fire doors. The proposed changes will mean that those manufacturers not currently testing to BS-EN standards will need to complete product re-tests and relabelling to ensure that they meet the new standards.

## Is there any difference between BS 476 and EN 1634?

It's important to note that BS 476 and EN 1634 are both credible standards that aim to achieve the same objective: higher standards of fire safety in building construction. You may want to refer to our White Paper, Fire testing doorsets: BS 476 versus EN 1634, for more detail about the difference between the two, but the long and the short of it is that BS 476 is generally recognised as being a slightly easier test to achieve the desired results. One difference is the way that the air pressure is set in the

furnace for this test compared to EN 1634, which results in less arduous testing, especially around the threshold are. We should add that BS 476 is still a rigorous test, despite this difference, and some feel that it is more realistic to real-life conditions in the event of a fire. Indeed, during the webinar, Jerry Quayle shared statistics that show that the UK has, on the whole, a good track record where fire safety is concerned when compared to other European nations.



## What does this mean for the fire door manufacturing market?

The Government's proposal was published just before Christmas on 23 December, so it is not surprising that it has taken some time for industry feeling to gather momentum. But several concerns around the proposals are being raised across the industry.

## The costs of re-testing will be significant

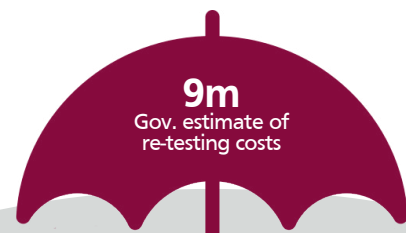
The ramifications of removing BS 476 are far-reaching. Any manufacturer currently using BS 476 as a standard will have to re-test across the board. Richard Kowalski pointed out that it's not just fire testing, but smoke too – both will require expensive re-testing and all the associated certification, fire test reports, fire engineering assessments and Field of Application reports that go with it. The £9m that the Government has estimated is not just for fire doors – other products that rely extensively on BS 476 have been identified and include roofing materials, cavity barriers and smoke extraction.

"We know from working with our customers on testing that it is onerous and requires significant investment of time and money. It's easy to rack up significant costs testing one range of door sets alone. The financial and administrative burden [of invalidating BS 476] will be huge."

Neil Smith Technical & Compliance  
Associate Director, Rutland

## How will this affect the composite door market?

Russell Day spoke on behalf of the Association of Composite Door Manufacturers. A particular issue for the composite door market is that there is currently no extended application for composite doors (this is still being drafted). This means that under EN 1634 and EN 13501 part 2 classification, the only extension of scope within the testing would be from the direct applications within EN 1634 part 1. So, for this entire market, it becomes very limiting. For example, if a full scope is written for an external fire door but then the door letter plate needs to be removed, this can't be done without another full test because the DIAPs [Direct Applications] within 1634 part 1 do not allow that to happen. This is silly because the door is obviously less vulnerable without the letter plate, yet it has to be re-tested. An extended application would allow for this to happen, but the composite door industry is simply not ready for the timescale being suggested by the government.



Govt. identified range of construction products affected by BS 476

Industry's estimation of the number of products affected

## Capacity issues at test houses

The other thing to consider is capacity for testing. If the window for completing all the re-testing is quite small, it will result in a huge log jam in test houses – that has safety implications on the entire fire door industry. Extending the transition period would be a more sensible course of action, to allow a steadier flow of work through the test houses and allow more time to sort the associated paperwork properly.

"Fire safety is paramount - I'm a big advocate. But if we do go through with this change, it needs to be implemented correctly. The suggested 12-month transition period is not possible at all – it requires five years as a minimum. Test houses can only just cope with their workload at the minute – implementing something like this will absolutely cripple the industry."

Richard Kowalski Technical  
Manager, Stairways Group



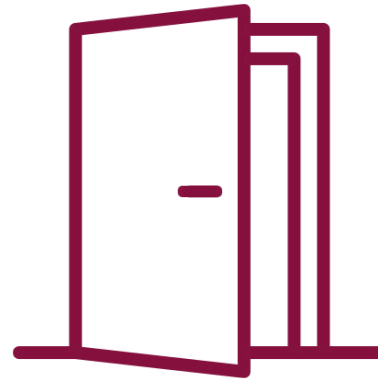
## What are the advantages of moving exclusively to EN 1634?

As part of our commitment to enhancing life safety at Rutland, we're always in support of positive moves forward within the industry, so it's important to explore the potential positives of moving to EN 1634.



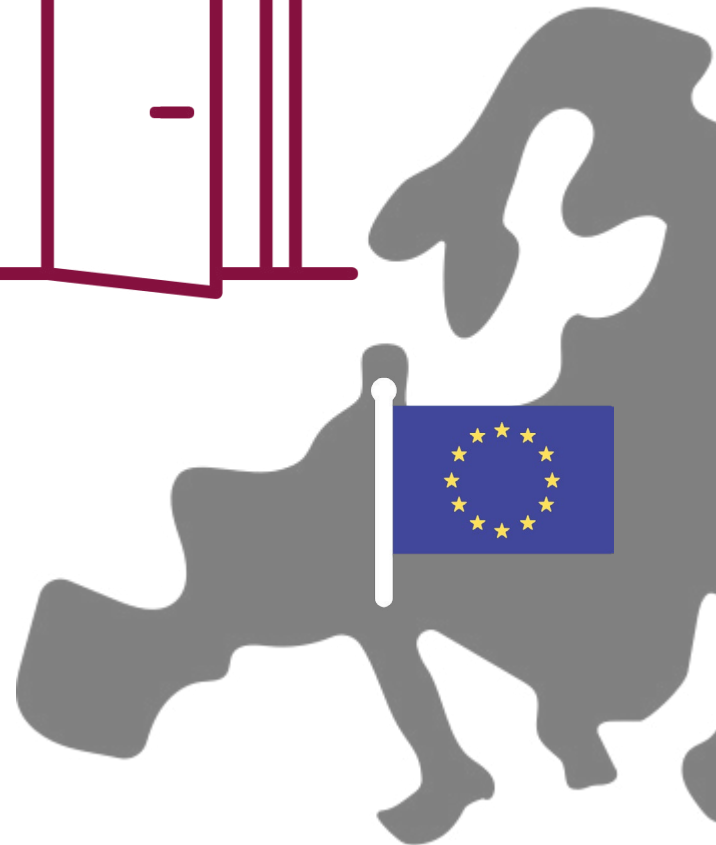
## BS 476 isn't recognised elsewhere in Europe

Perhaps the most significant difference between BS 476 and EN 1634 is that BS 476 isn't recognised within CE or UKCA marking, and this means that it isn't recognised elsewhere in Europe. Even if we have officially left the EU, it makes sense to be closely aligned on all performance standards if we wish these markets to remain open to us in the long term. However, implementation of any transition should be approached with proper care and consideration for those it will affect.



## More clarity and consistency around standards

In the interest of clarity, having two methods of complying to a single requirement does not make sense – Dame Judith Hackett referred to the lack of consistency in Approved Document B in her report, 'Building a Safer Future'. Removing BS 476 would achieve clarity and consistency in standards, and make it far easier for the Office for Product Safety and Standards (OPSS), which regulates a wide range of products for safety and integrity, to assess fire performance for internal fire doors.



## So where do we stand on this at Rutland?

Whilst Rutland has been proactive on testing and certification, and the majority of our products are tested to EN 1634, we can see that this is going to have quite a severe effect on the industry as a whole. We have a lot of sympathy for anyone facing the requirement to re-test entire ranges in such a constricted timeframe. Testing is a significant investment in any budget and those who have already invested considerable sums in testing to BS 476 would be looking at having to do it all over again. We suggest that implementation of this transition needs careful consideration on the Government's part – it cannot be rushed. We are concerned that if sufficient time and resources are not provided for the transition

to EN 1634, this could result in the withdrawal of many fire safety products from the market – can we afford to let this happen as an industry? BS 476 is a rigorous test that has served the UK well, and there is little point in rushing anything through. Part of the solution must surely be to allow more time for the transition, and to reassess how much it will cost to implement.

**At the time of writing, this matter is under consultation by the Government. We hope that enough industry representation will be made to help the Government manage the implementation phase skilfully and without detriment to the many UK businesses affected.**