

# Fire testing doorsets: BS 476 versus EN 1634

When it comes to fire testing doorsets in the UK, there are two different standards that can be tested to. As is so often the case, one is a British Standard and the other is a European one. Both set out to achieve pretty much the same objective: higher standards of fire safety in building construction.



## BS 476

The BS 476 Part 20 and 22:1987 dictate the appropriate fire tests for elements of structure and materials. It also grades the level of fire resistance.



## EN 1634

EN 1634-1:2014 is a standard covering: Fire resistance and smoke control tests for door and shutter assemblies, openable windows and elements of building hardware. Fire resistance test for door and shutter assemblies and openable windows.

There is also a related standard that sets the criteria for the EN tests themselves that are carried out to establish compliance with and accreditation to the EN standards. This is EN 1363.

With these two standards both holding legitimacy in the UK, the question Rutland often gets asked in supporting customers with testing of doorsets, is, which test is most relevant for us? In this whitepaper, we aim to review the factors that contribute to making that decision.

## The requirement for CE marking (and now UKCA)

One of the most critical factors in considering fire testing of doorsets is whether wider accreditation is looked for. Since November 2019, the EU's harmonised standard EN 16034, which was accepted by the UK at its introduction a few years before, became mandatory. It stipulates that all external fire-rated doorsets and windows must be CE marked. This is something that had been spoken about within the industry for many years prior to it coming into force, and there was also talk (and still is) of internal doorsets following suit. However, there is no indication of this happening in the imminent future.

With the UK having now left the EU, the CE mark is no longer the recognised badge of certification within the UK. The UKCA mark has been introduced, and throughout 2021 is essentially operating alongside the CE mark, with both marks of accreditation being accepted as sufficient indication of a product's quality standards. However, from January 2022, 'only products with UKCA marking will be accepted in Great Britain'. It should be noted that this stipulation applies only to the 'Great Britain' part of the UK, as CE marking will continue to hold force in Northern Ireland.



## Does UKCA marking change fire testing requirements?

To all intents and purposes, very little has changed with the transfer to UKCA marking, as it largely just represents a new badge for the same performance standards. It is expected that all the requirements of the harmonised standards relating to this area will be adopted by the UK, and therefore external fire-rated doorsets will need to be UKCA marked for sale in the UK, in just the same way as they must be CE marked for the EU market.



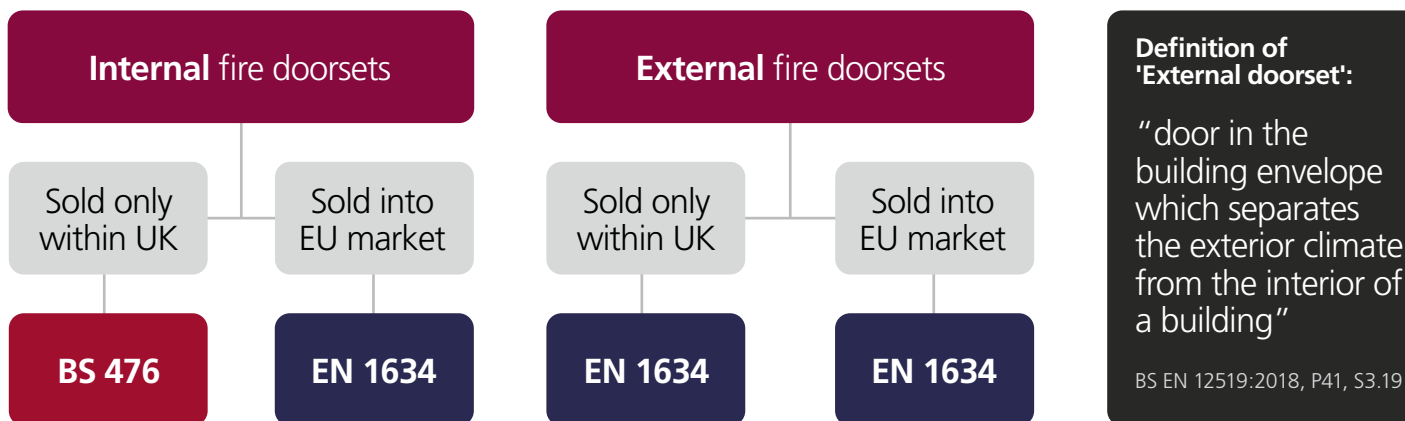
### Getting down to the nitty gritty: BS 476 or EN 1634?

When considering which standard to test your doorset to, it's important to note that both standards are credible and referenced in UK Building Regulations.

BS 476 is generally recognised as being a slightly easier test to achieve 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 rigorous testing, especially around the threshold area.

The main shortcomings of BS 476 are that it doesn't support CE or UKCA marking, and it isn't recognised elsewhere in Europe. As all fire-rated external doorsets must now be UKCA/CE marked, this makes BS 476 an inappropriate standard for any external doors, and also for any external fire doors that are intended to be sold into the EU market.

The following graphics aim to illustrate the decision criteria for choosing the relevant test.



## Predicting the future

As with all standards, things evolve over time. While the UK is breaking away fully from the EU, it would seem that it will, nonetheless, remain closely aligned on all performance standards, as these underpin confidence in trading between the UK and the EU bloc.

If the requirement were to be introduced for internal doorsets to also be CE/UKCA marked, BS 476 would almost cease to have relevance when it comes to testing the fire resistance of doorsets, unless the UK Government updated the UKCA marking of doorsets to include BS 476 as an accepted test performance in the designated standard.

### Get in touch:

Our technical team at Rutland is always available to advise on specific project requirements or to help solve particular challenges you may face with fire door adjustments. Simply give us a call on 01246 261491, or email [sales@rutlanduk.co.uk](mailto:sales@rutlanduk.co.uk).

The information contained within this whitepaper is Rutland's opinion/interpretation of the standards. It is not to be taken as legal advice.  
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