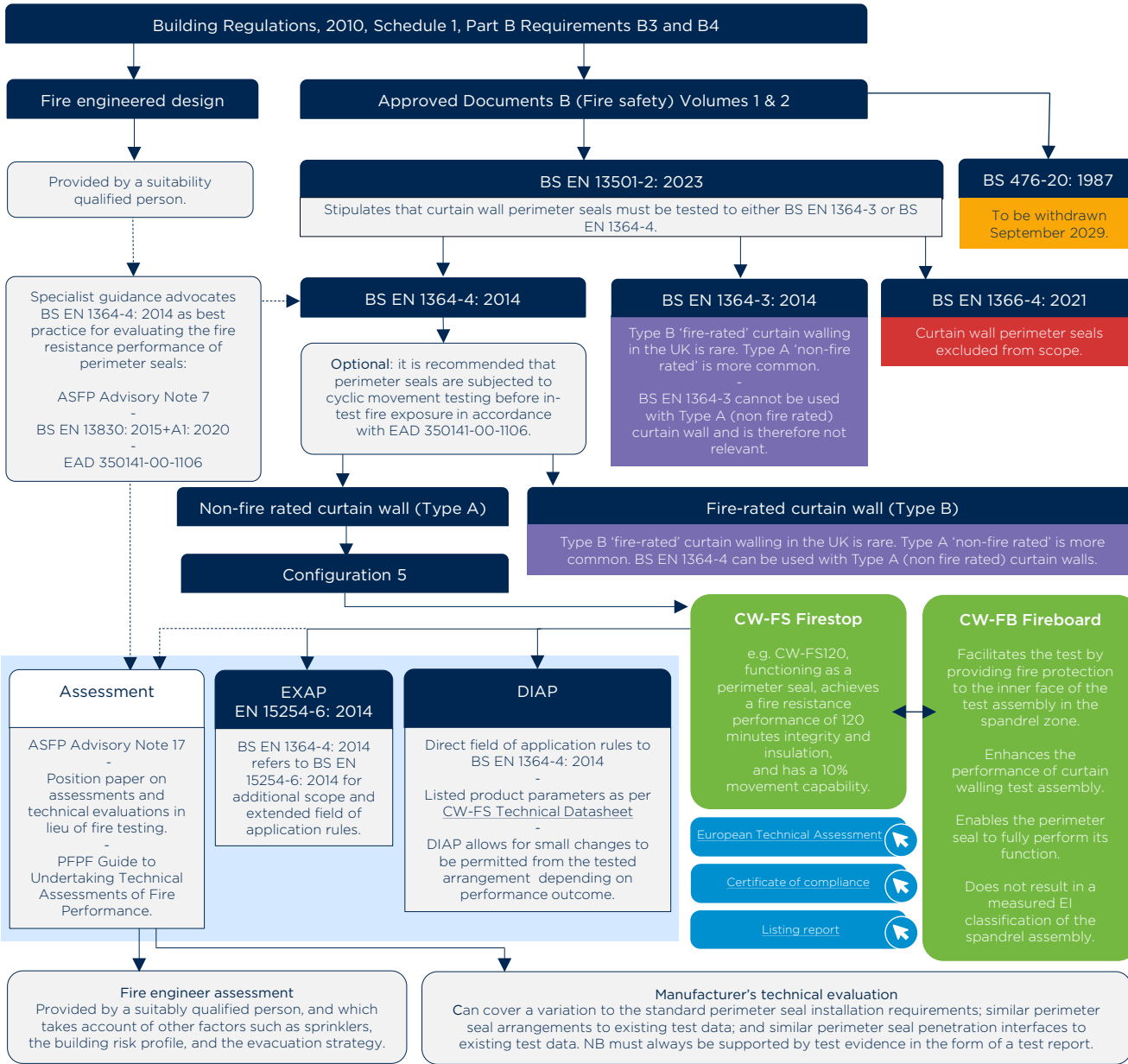


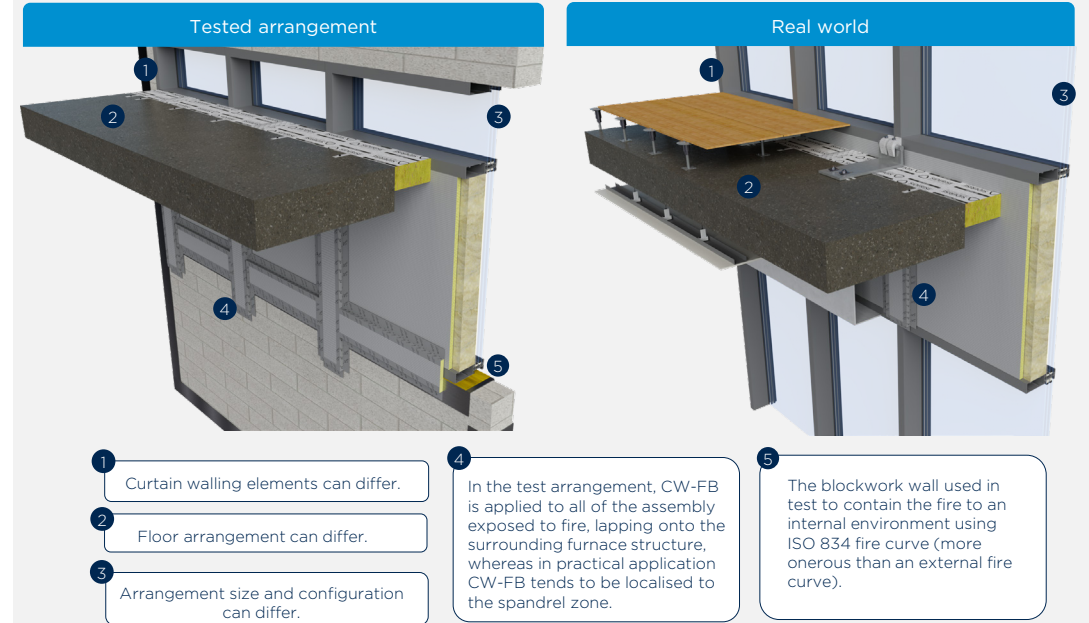
Compliance paths - Fire resistance of horizontal perimeter seals in curtain walling

Satisfying the functional performance requirements of the Building Regulations in England and Wales



Additional considerations

It is important to note the differences between tested arrangements and real-world conditions. Key variables are highlighted below.



Do I need to protect the spandrel? (UK Documents)

Approved Documents B do not prescribe a protected spandrel.

However, they do lead to BS EN 1364-4: 2014 via BS EN 13501-2: 2023 where fire protection of the inner face of the curtain wall in the spandrel zone is required to allow the test to be conducted.

Supplementary test data

Test standards used in other global jurisdictions that are designed to replicate a fully developed fire, subject the spandrel assembly (including the perimeter seal and the lower transom) to fire exposure from inside and outside the compartment, emulating break-out through the window and leapfrog to the floor above.

CW-FS120 in a protected spandrel construction has demonstrated its ability to maintain its fire resistance for over 2 hours in these conditions.

Leapfrog - break-out / break-in

When using a non-fire rated façade with aluminium profiles and non-fire resisting glazing, there is risk of fire break-out through the spandrel panel at the underside of the firestop and subsequent break-in above if the spandrel is not protected.

Through this mechanism there is the potential for fire to spread vertically over the façade exterior to a room's interior on the floor above the compartment of origin.

Siderise position

Due to the above we recommend following the tested detail as closely as possible including protecting the spandrel zone.

The responsibility of Siderise as a product manufacturer is to provide guidance and information.

Designer duties

Designers are expected to take every reasonable step to ensure the design work on a project demonstrates compliance with the Building Regulations and that the design is robust.

It is a legal requirement to satisfy the functional requirements of Schedule 1 'B3 - Limit internal fire spread' and 'B4 - Limit external fire spread'.

In addition to the legal requirements, designs must comply with the project specific fire strategy in consideration with the relevant passive and active protection systems.