

Understanding The Evidence Behind Compliant Fire-Rated Glazing Systems.

Overview

When specifying fire-rated glazing, one of the most common questions is:

“How do I know the system is compliant?”

The answer is rarely found in a single certificate.

Compliance is built on a combination of fire resistance testing, classification, product certification, quality-controlled manufacturing and correct specification. Understanding how these elements fit together helps project teams make informed decisions and avoid assumptions that can lead to delays or non-compliant installations.

Fire Testing

Testing is carried out under controlled conditions using recognised standards such as:

- **BS EN 1364-1** – Glazed screens and partitions.
- **BS EN 1634-1** – Doorsets and openable windows.
- **BS EN 1363-1** – General fire resistance testing principles.

Importantly, the complete assembly is tested—not simply the glass. The frame, glazing materials, fixings and installation method all contribute to the final result.

Classification Reports

Following successful testing, a **Classification Report** may be produced in accordance with **BS EN 13501-2**.

This confirms the fire classification achieved by the tested system, for example:

- E30.
- EW60.
- EI60.
- EI120.

The report also defines the scope and limitations of the classification, making it one of the key technical documents supporting a fire-rated glazing system.

Extended Application (EXAP)

Testing every possible variation of a system would be impractical.

In some cases, an Extended Application Report (EXAP) allows certain changes to be justified using established technical rules without carrying out another full-scale fire test.

This may include changes such as:

- Increased dimensions.
- Alternative glazing layouts.
- Different frame arrangements.
- Additional design variations.

An EXAP extends existing fire test evidence—it is not a substitute for fire testing.

UKCA Marking

Where required by legislation, products placed on the UK market must carry UKCA marking.

UKCA marking demonstrates that the product complies with the relevant legislation and is supported by documented evidence, including product testing and Factory Production Control (FPC).

However, UKCA marking does not confirm that a product is suitable for every project. It remains the responsibility of the designer or specifier to ensure the selected system is appropriate for its intended application.

Third-Party Certification

Many manufacturers also obtain independent third-party certification through organisations such as IFC

Certification, Certifire or Warringtonfire certification schemes.

These schemes provide additional confidence that products continue to be manufactured in accordance with the tested specification through ongoing assessment and surveillance.

While not always mandatory, third-party certification is often viewed positively by clients and specifiers because it provides an additional layer of assurance.

Factory Production Control

Consistent manufacturing is just as important as successful fire testing.

Factory Production Control (FPC) helps ensure products continue to be manufactured to the same specification as the tested system through documented quality procedures and routine production checks.

Without consistent manufacturing, the value of the original fire test evidence is significantly reduced.

Common Specification Mistakes

Many compliance issues arise long before products arrive on site.

Common examples include:

- Selecting products before understanding the fire strategy.
- Assuming the highest fire rating is always the correct choice.
- Providing incomplete information when requesting quotations.
- Assuming similar-looking systems are interchangeable.
- Focusing solely on initial cost rather than long-term performance and technical support.
- Making design changes after manufacture has commenced.

Most of these issues are avoidable through early planning and technical engagement.

In Practice

It is not unusual for project teams to request copies of fire test reports when assessing products.

While these reports are important, they should be considered alongside Classification Reports, UKCA documentation, EXAPs (where applicable) and any third-party certification.

Looking at the complete package of evidence provides a much clearer picture of whether a system is suitable for the intended application.

Key Points

- Compliance relies on more than a single certificate.
- Fire testing assesses the complete glazing system, not individual components.
- Classification Reports, EXAPs and UKCA documentation each serve different purposes.
- Third-party certification provides additional independent assurance.
- Early technical engagement helps avoid specification errors and project delays.

Relevant Standards

- **BS EN 13501-2** – Fire classification of construction products and building elements.
- **BS EN 1363-1** – Fire resistance tests – General requirements.
- **BS EN 1364-1** – Fire resistance testing for non-loadbearing glazed elements.
- **BS EN 1634-1** – Fire resistance testing for doorsets, shutters and openable windows.
- **BS EN 15269 Series** – Extended Application (EXAP).
- UKCA legislation and manufacturer technical documentation.

Disclaimer

This guide provides general guidance on UKCA marking, fire testing and supporting technical evidence for fire-rated glazing systems. Product approval requirements vary depending on the application and applicable legislation. The suitability of any system should always be confirmed against the project's fire strategy, statutory guidance and the manufacturer's supporting documentation before specification or installation.