

# FPA expands its fire research testing capabilities with dedicated Research Testing Facility and team of Fire Research Engineers

**Press release – for immediate release**

**X April 2025**

The Fire Protection Association has been conducting fire research since 1946 and its Fire Testing Laboratory in Gloucestershire is UKAS accredited to test to several British Standards including BS 8414 Cladding Testing, BS 8458 Watermist Systems Testing, and a range of fire resistance test standards for building products and systems.

In addition to offering tests to British Standards and sprinkler head testing, the FPA delivers a wide range of fire research tests, reconstructions, and simulations to address emerging risks and enhance industry standards and has recently expanded its capacity for this work to meet the needs of governmental and regulatory bodies, manufacturers, insurers, trade associations, academics, fire and rescue services, and the fire safety engineering community.

George Edwardes, the FPA’s Technical Director, who heads up the Research department commented: “*Research and experimental fire testing plays a critical role in shaping fire safety strategies, improving building resilience, and informing regulatory and insurance practices. We are pleased to have further expanded our capabilities with our purpose-built Research Testing Facility where we can support the needs of the industry by evaluating the ability of non-standard systems and applications to perform as intended through the design of unique fire tests for both R&D and demonstration purposes.”*

The FPA’s new Research Testing Facility is capable of withstanding 8 MW fires, with integrated suppressing fire systems and overpressure vents for handling any fires that become unsafe. The facility is connected to a smoke extraction system that removes harmful gases, filtering and cleaning them to protect the environment. A drainage system surrounds the floor, connected to an oil separator for removing any wastewater, oil, aqueous film forming foam (AFFF) etc. These features enable the facility to be used for applications where high intensity fires demand a sterile and easily controlled environment.

**Milestone research projects and publications**   
The FPA’s research projects are primarily conducted through its annually funded [RISCAuthority](https://www.thefpa.co.uk/membership/riscauthority-membership) research scheme which comprises a group of UK insurers that actively support several working groups to develop best practice guidance for the protection of people, property, business, and the environment. Two recent milestone projects include:

[**Green and Living Walls as External Cladding - A Joint Guide to Managing Risk**](https://www.thefpa.co.uk/advice-and-guidance/free-documents?q=Green%20and%20Living%20Walls%20as%20External%20Cladding%20-%20A%20Joint%20Guide%20to%20Managing%20Risk)

With green and living walls becoming a familiar feature of the built environment, this research into the implications that the provision of living walls may have for the resilience of the building, and the continuity of business or provision of services that are provided from it, resulted in the publication of a joint industry guide. The guide was produced collaboratively between key living wall providers and UK insurers, and endorsed and supported by several organisations, including Vertical Meadow, Viritopia, ABI, Biotecture, Growing Revolution, and Scotscape.

[**RISC 501: Fire Test and Assessment Method for External Cladding Systems**](https://www.thefpa.co.uk/advice-and-guidance/free-documents?q=RISC%20501:%20Fire%20Test%20and%20Assessment%20Method%20for%20External%20Cladding%20Systems)

Combustible cladding systems are approved on high-rise buildings in the UK by the performance-based route to compliance, using the BS8414 test method and BR 135 assessment criteria. However, a number of limitations have been identified with this route in relation to the appropriateness of the fuel source, test construction, construction detailing, assessment criteria, and availability of test results. Following an extensive research project involving the University of Central Lancashire, external consultants, and insurers, the FPA developed a new fire safety assessment test to address these limitations; going beyond the basic life safety standards with the aim of ensuring resilient systems that can effectively prevent vertical spread.

**The future of the built environment**   
With its additional research testing capability, the FPA is committed to a number of research initiatives throughout 2025 and beyond to continue to improve building resilience by:

* enabling the wider use of timber in construction by developing strategies to maintain and improve fire safety
* reducing the heat loss from buildings by fire-safe installation of insulation in new and retrofitted construction projects
* enabling the widespread deployment of photovoltaic panels (PVPs) by designing installations that maintain fire safety
* enabling the transition from masonry to steel by improving the fire safety of traditional and lightweight steel framed buildings
* facilitating the inclusion of green and living walls into city settings in fire-safe form to promote biodiversity, ameliorate urban heat islands, and reduce building energy use
* creating a generic database of reaction-to-fire behaviour of those combustible construction products which could make a significant contribution to a fire
* using these results to develop the methodology to devise a fire-safety classification for individual buildings, going above and beyond the regulatory requirements, and to integrate this rating scheme into Building Information Modelling (BIM) systems, to the point of providing a working demonstrator to show the ‘art of the possible’
* undertaking horizon scanning to identify new and emerging threats.

**Find out more  
You can the FPA’s fire research testing here.** To learn more about the key findings from the FPA’s latest research projects and future research initiatives, register for this webinar hosted by George Edwardes on x May: The critical role of research and experimental fire testing in shaping the future of fire safety.

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**About the Fire Protection Association (FPA)**The FPA is the UK's national fire safety organisation. We work to identify the dangers of fire and the means by which potential for loss is kept to a minimum. Since 1946 we have attained an unrivalled reputation for quality of work and expertise in all aspects of fire including research, consultancy, training, membership, publications, risk surveying and auditing.