



# Timber Frame Fire Safety in Use Guidance

Launch of the STA Research



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The latest launch by the Structural Timber Association (STA) of their fire safety in use guidance marked another milestone in the extensive and ongoing body of work the STA have been undertaking over the last 10 years to enhance quality, improve safety and drive product innovation in the sector.

Its launch coincided with a noticeable sea change in the attitude towards timber frame amongst real estate owners and developers in the UK due to the risks associated with combustibility of construction materials. Conflicted with this is a clear recognition that the real estate and construction market, one of the largest producers of CO2 in the UK, has a major challenge ahead in order to reach carbon zero by 2050 – and building in timber, due to its embodied carbon, has to play a huge role in reaching that target.

### **What is the STA's Fire Safety in Use Guidance?**

The STA's fire safety in use guidance document, freely available to all, is the latest in a long line of technical guidance documents providing best practice to those in the industry. This document is the product of almost 18 months and nearly GBP250,000 of work, researching, testing and analysing huge amounts of data on the behaviour of fires in occupied buildings.

### **What did the tests involve?**

The STA ran multiple full-scale fire tests to EN1365; the European Regulatory Standard for fire resistance testing for load bearing elements. Each test was conducted on different timber frame systems; comprising walls with insulation and plasterboard variability and even penetrations in the walls for sockets. The European standard was chosen as it is seen within the industry as the 'gold standard' of fire testing, and more onerous than the BS (UK Regulatory Body) Standard. Included in this testing regime the panels tested were also run with the systems under maximum load designed to replicate the conditions they would be under when part of a larger building.

### **What was the outcome?**

The outcome resulted in a robust comprehensive suite of evidence-based solutions for timber framed systems that will deliver high levels of resilience and quality of fire safety, all comfortably complying with EN Standards.

### **What other activity has been undertaken to support this research?**

Simultaneously to this document, the STA has also released a supporting document in regard to build quality. The STA recognised that the correct application of fire stopping is critical to the building performance regardless of the materials used. Responding to this need the STA are also providing extensive guidance on the compliance with regulations on the installation



of cavity barriers for both internal and external wall systems, including differentiating between fire stopping and cavity barriers, as too often these terms are used interchangeably, when they are not the same thing. Furthermore, it gives the reader guidance about which system and barriers are best suited for which type of timber frame systems. The STA have also gone one step further by highlighting where additional resilience can be achieved by exceeding minimum regulatory requirements, advising members to adopt this where possible.

Both these documents are inherently intertwined with STA Assure – a quality assurance scheme involving independent audits of all STA members to ensure compliance with standards set by the STA on competency and quality.

### **What does this mean for insurers and the insurance industry?**

All this provides further evidence that the STA and their members are leading the way when it comes to fire protection, fire stopping and regulatory compliance. Whilst it is unclear ultimately where building regulations may land following the Government's review, the STA and the timber industry are taking a proactive view, ensuring their buildings go above and beyond BS standards, as well as continuing to raise the bar in terms of fire safety and compartmentalisation.

As the approved broker to the Structural Timber Association, Gallagher is constantly looking for ways to educate insurers and to help assist in improving the image of the sector amongst the insurance market. Should you wish to learn more about what the STA are doing, or to understand further about the engineering timber sector, please do not hesitate to get in touch.



## About the Structural Timber Association (STA)

Representing over 700 members across the structural timber industry and associated supply chain, the STA has an objective to enhance quality and drive product innovation through technical guidance and research. The Association's independently assessed membership and quality standards scheme - STA Assure, is recognised by the NHBC and six leading warranty and building control bodies. This scheme ensures all manufacturing members meet or even exceed current legislation and regulatory requirements.

As part of their continual development programme, the STA has been collaborating with the Construction Scotland Innovation Centre, the University of Edinburgh and BRE to produce fire safety in use guidance for timber frame buildings. Fire safety in use effects all forms of construction. All buildings must be designed to comply with the functional protocols of the building regulations for fire safety requirements, as a minimum standard.

The STA has invested in an industry leading fire in use research project to test and prove commonly used timber frame wall, floor and roof make ups used in the UK marketplace.

The output of this research, a pattern book of EN tested systems, is believed to be the first of its kind in the UK timber frame sector. This research now forms part of the STA's best practice guidance and is free to download from [www.structuraltimber.co.uk/links/research-documents](http://www.structuraltimber.co.uk/links/research-documents).

To find out more about the STA and locate members go to:  
[www.structuraltimber.co.uk](http://www.structuraltimber.co.uk)

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Founded by Arthur J. Gallagher in Chicago in 1927, Gallagher has grown to become one of the leading insurance brokerage, Risk Management, and human capital consultancy firms in the world. With a truly global reach, our organisation employs over 33,000 people and our international network provides services in more than 150 countries. Our people partner with businesses around the world to provide relevant and impactful professional advice. We continue to build on 90 plus years of expertise that spans a huge range of industries.

No matter the size of the organisations we partner with, their specific risks and human capital challenges, we work tirelessly and utilise our industry expertise to provide best in class solutions that maximise value for our clients and to deliver them with our world-class service. Our values are core to our culture. Passionate Service, Strategic Innovation, and Ethical Behaviour form the basis of how we do business.





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