

Insulated Panels

UK & Ireland

Technical Update: TU038

Capable Member & Load Path Requirements

Kingspan Insulated Panels – Fire-Rated Wall Applications

Tech-eXchange



CAPABLE MEMBER & LOAD PATH REQUIREMENTS

DATE: JULY 2025

The purpose of this Technical Bulletin is to raise awareness of the newly released [BCSA Technical Specification](#) which came into force 1st of July and also the subsequent [NSC Article – Supporting a boundary elevation](#).

Kingspan Insulated Panels were active participants in the industry-wide steering group, alongside the BCSA and SCI and fully agree with these new developments and have since adopted the guidelines within our Kingspan Integrated Firewall. To address some common questions about terminology and to add further guidance on our approach, please see below.

Capable Member

For any Kingspan insulated panel system* used in a firewall application, it is essential to install a capable member at the head of the cladding or elevation. This component is critical in supporting the panel system during a fire event.

- The capable member will typically be a hot-rolled steel section, protected to meet the required fire resistance duration (commonly 60 minutes) – typically using an intumescent coating.
- The design, protection method, and specification of the capable member must be confirmed by the project's structural engineer.
- The limiting temperature of the capable member should also be provided to Kingspan to allow accurate fixing design. If not specified, a default design assumption of 600°C may be used, but this must be verified by the engineer responsible for structural fire design.

Additional capable members might be required on taller elevations and where heavier cladding is used.

Vertical Cladding

In vertically installed Kingspan panel systems:

- During a fire scenario, the panels are designed to hang from the capable member.
- At any location where the panel continuity is interrupted, such as at:
 - panel end laps and stack joints;
 - door and window openings;
 - changes in panel orientation or layout;

an additional capable member must be installed to support the portion of the wall system below the cladding break.

Fixing requirements:

- The quantity and specification of fixings at the capable member must be based on:
 - weight of the individual panel;
 - panel height or panel length;
 - limiting temperature of the capable member.
- Kingspan can assist with guidance on fixing specification and with identifying where additional capable members may be required.
- All fixings into capable members must be evenly spaced across the panel width, i.e. not hidden within joints or secret-fixed, but may be covered with a flashing.

*For full range of fire-resistant panel solutions, please see the [Kingspan fire matrix](#).

CAPABLE MEMBER & LOAD PATH REQUIREMENTS

Horizontal Cladding (up to 60 minutes Period of Fire Resistance)

In Kingspan systems using horizontally laid panels fixed to secondary steelwork:

- The secondary steelwork must be designed to provide a load path to the capable member.
- This typically requires:
 - continuous vertical steel members; or
 - shorter vertical sections with engineered and verified connections that create a continuous vertical load path.

Responsibility for specifying the secondary steelwork and ensuring continuity of load path lies with the secondary steelwork supplier or designer.

Kingspan Structural Products offers dedicated solutions for use with horizontally installed insulated panels, specifically engineered to ensure a compliant and verifiable fire load path.

- These solutions include tested and coordinated steelwork components to simplify integration into Kingspan cladding systems.
- Kingspan Structural Products can provide:
 - detailed markups and layout advice;
 - guidance on secondary steelwork arrangements, and
 - support in verifying the continuity of the fire load path to the capable member.

Note: For horizontal cladding fixed back to primary steelwork or for period of fire requirements greater than 60 minutes please contact Kingspan Tech-eXchange.

Summary

Kingspan insulated panel systems used in fire-rated applications must include a fully engineered and protected capable member at the head of each wall elevation, along with appropriate fixing and secondary steelwork arrangements.

Kingspan can support design teams and contractors with:

- Fixing guidance;
- Fire load path design;
- Secondary steelwork advice (especially for horizontal panel systems); and
- System-specific technical assistance.

For further support or project-specific queries, please contact Kingspan Tech-eXchange.

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