

Insulated Panels
Ireland

Technical Update: EU128

Kingspan boundary wall guidance

Tech-eXchange



KINGSPAN BOUNDARY WALL GUIDANCE

DATE: AUGUST 2025

Technical Note: Capable Member & Load Path Requirements Kingspan Insulated Panels – Fire-Rated Wall Applications

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. This builds upon the earlier SCI P313 guidance for primary structural elements and extends the same analytical rigour to secondary steelwork.

To address some common questions about changes to recommendations and to add further guidance on our approach, please see below:

Previous Kingspan Guidance

Since its publication in August 2000 by IFC Ltd, the design of firewalls in Ireland with Kingspan insulated panels and Multibeam cold rolled products has been based on report L00146RevA.

Although L00146RevA contains no expiry date, it does make reference to BS 476 fire resistance testing. Due to the removal of the references to BS 476 fire resistance testing in the new TGD B 2024, and the ease of construction to BCSA guidance, we now recommend the BCSA guidance.

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.

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

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, a capable member must be installed to support the wall system below the cladding break.
- The quantity and specification of fixings at the capable member must be based on the weight of the panel and the limiting temperature of the capable member.
- Kingspan can assist with guidance on fixing specification and with identifying where additional capable members may be required.
- Horizontal secondary steel members can be double spanning with standard cleat connections.
- There are no restrictions on secondary steel member support centres. Please refer to the cladding's fire resistance test or classification report for maximum allowable spans. Please note that panel spans are subject to wind loads in normal conditions.
- It is not necessary to provide slotted connections between the secondary steel members and the primary steelwork.
- 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.

Horizontal Cladding (up to 60mins 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 members, or engineered connections between shorter sections to create a continuous vertical load path.
- Vertical members must be fixed to a protected capable member. The capable member must be designed to carry the vertical load from the wall system in the fire condition.

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 support in verifying the continuity of the fire load path to the capable member and guidance on secondary steelwork arrangements

NOTE: For horizontal cladding fixed back to primary steelwork or for period of fire requirements greater than 60 minutes please contact Kingspan Technical Services.

Summary

Kingspan now recommend BCSA guidance for firewall design. 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. To ensure that the above is communicated correctly throughout the project it is essential that the cladding designer, secondary steelwork supplier and passive fire protection supplier are engaged throughout the project starting at the strategic definition stage. The engineered solution must be approved by the design team and building control prior to manufacture.

Kingspan can support design teams and contractors with:

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

For further support or project-specific queries, please contact [Kingspan Tech-eXchange](#).

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