



ASFP Technical Guidance Document 8

Code of practice for junctions between different fire protection systems when applied to load bearing structural steel elements

June 2026



Association for Specialist Fire Protection (ASFP)

The Association was formed in 1976 and currently represents the majority of UK contractors and manufacturers of specialist fire protection products, with associate members representing regulatory, certification, testing and consulting bodies.

ASFP seeks to increase awareness and understanding of the nature of fire and the various forms, functions and benefits provided by passive fire protection.

It is willing to make available its specialist knowledge of all aspects of fire protection and can assist specifiers and main contractors in identifying products suitable for specific requirements, both in the UK and overseas.

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Compliance with this ASFP Technical Guidance Note does not of itself confer immunity from legal obligation.

Fire and your legal liability

The estimated total economic and social cost of fire in England in year ending March 2020 was £12.0 billion. That's why we must all play our part.

Why is this of relevance to me?

If you are involved in provision of a fire protection package, at any level, then you share liability for its usefulness and its operation when it's needed in fire, and that liability will still be there in the event of a court case.

I place the order; it is not my responsibility to install the works!

If it is your responsibility to specify the materials and/or appoint the installation contractor, it is also your responsibility to ensure that they can prove competency for the fire protection materials used, or the works to be carried out. It's no longer simply a duty of care or voluntary – it's a legal obligation.

If you knowingly ignore advice that leads to a failure in the fire performance of any element of installed fire protection within a building, then you are likely to be found to be just as culpable as the deficient installer.

You share liability for the provision of information required under Building Regulation 38 that tells the user of the building about the fire prevention measures provided in the building. For high-risk residential buildings in England, the requirements now go further due to The Higher-Risk Buildings (Keeping and Provision of Information etc.) (England) Regulations 2024, the underpinning legislation behind Golden Thread requirements. Without golden thread or regulation 38 information, the building occupiers responsible cannot obtain an effective risk assessment under the Regulatory Reform (Fire Safety) Order 2005, the Fire Scotland Act 2005, and the Fire & Rescue Services (Northern Ireland) Order 2006, and recent amendments of these laws.

What is expected of me?

In the event of fire, and deaths, a court will want to know how every fire protection system was selected; the basis for selection of the installer, whether adequate time was provided for its installation, and whether there was adequate liaison between the different parties to ensure it was installed correctly. No ifs, no buts – it's all contained in the Construction, Design and Management Regulations 2015.

The CDM 2015 regulations, enforced by Health and Safety Executive concentrate on managing the risk, and the health and safety of all those who build, those that use the building, those who maintain it and those that demolish it – cradle to grave. The Building Safety Act 2022 introduces further duties on individuals and organisations that commission, design and undertake the construction of new buildings to ensure that they comply with Building Regulations. Dutyholders are all the below:

- Client – Who commissions the building works
- Principal Designer – Who is in control of the design work
- Designers – Those who carry out design work
- Principal Contractor – Who is in control of the construction and refurbishment work
- Contractors – Those who carry out construction and refurbishment work

The regulations also set out the competence requirements (i.e. the skills, knowledge, experience and behaviours) that duty holders will need to have to undertake work or to ensure that those they appoint are also competent to carry out that work. Duty holders will need to work together to plan, manage, co-ordinate and monitor the design, construction and any refurbishment work, to make sure it complies with all relevant building regulations.

Finally, the building regulations, as amended in October 2023 now states that any person carrying out any building work or design must have the necessary competence (skills, knowledge, experience and behaviours or organisational capabilities), to ensure that the building work is carried out in accordance with relevant regulatory requirements.

Be aware – the time to consider the above is before the event, not after it!



Guidance on the junction between different fire protection systems when applied to load-bearing structural steel elements

1. General notes for all fire protection systems

ASFP considers it best practice to completely protect individual steel or structural elements of construction with the same fire protection system. Mixing of fire protection systems should be avoided on single steel elements. The fire testing of all possible interfaces is impractical. Manufacturers should be contacted for relevant advice on any system being added next to an existing system'

So, in general, the use of different PFP systems on individual steel or structural elements of construction should be avoided.

- Note that off-site sprayed beams are not treated at the connection point, and care with interfaces will be needed. See general comments and [a] to [j] below.
- The failure temperatures in fire are different for universal beams, cellular beams and universal columns. The abutting systems should be suitably selected.
- The existing fire protection system, to be abutted or overlapped, must be fully cured and chemically compatible with any other system to be in contact with .
- Overlapping or abutting different systems needs careful consideration since they may behave in different ways in fire. For example, shrink back' of any system in fire, at junctions.
- The specific procedure will be affected by whichever fire protection system is first applied on site, and by the interval before a 2nd system can be added.

The types and sequence of installing PFP systems can be illustrated by the following table.

Existing type of fire protection system on the steelwork	Product being considered for adding to steelwork where [x] refers to the notes below the table		
Reactive coating	Reactive coating [a]	Spray [d]	Board / Batt [g]
Spray	Reactive coating [b]	Spray [e]	Board / Batt [h]
Board / Batt system	Reactive coating [c]	Spray [f]	Board / Batt [i]

For definitions of reactive coatings & passive fire protection systems, see ASFP publication 'Fire protection for structural steel in buildings: 6th Edition

2. Guidance for generic types of fire protection systems

The guidance provided for the next 3 systems are common to each of them:-

[a] Adding a reactive coating next to an existing reactive coating system.

[b] Adding a reactive coating next to an existing sprayed system.

[c] Adding a reactive coating next to an existing board / batt system.

Where a reactive coating fire protection system is to be added next to an existing fire protection system to form a junction, ASFP reactive coating specialists consider that the best guidance is to

have a simple butt joint between the two different fire protection systems. Where this is not possible then independent advice should be obtained from the fire protection system manufacturers involved, based on the test information available, or from independent consultants as described in government guidance documents.

[a] Adding spray coating adjacent to reactive coating

Where the spray meets a reactive coating, the spray should overlap the reactive coating by a minimum of 100mm.

[b] Adding spray adjacent to an existing spray system

Different spray systems may have different chemical compositions. Contact the manufacturers concerned to confirm the chemical compatibility between the two systems. Once compatibility is established, a tight butt joint between the two systems should be used.

If compatibility is not established, do not use the intended spray system

[c] Adding spray adjacent to existing board/batt system

If this addition sequence is required, contact the spray system manufacturer for the detailed procedure to be followed.

[d] Adding a board system adjacent to reactive coating

Where a board meets a reactive coating, the board system should overlap the reactive coating by 100mm, and then be capped off, noting the need for chemical compatibility of any materials/adhesives with the reactive coating system.

[e] Adding board adjacent to spray

Where a board system meets a spray system, the existing spray should be cut back to provide a flat edge, the board system should be capped off at the junction, and a suitable overlap may need to be incorporated if advised by the manufacturer of the board system being added.

[f] Adding a board system next to an existing board/batt system

The board / batt systems may be of different thickness and joints may be complex. It is recommended that the web of both board protection systems should be capped off, using the relevant protection material, to prevent the passage of fire into the web.

NOTE 1: Alternative methods may be available from manufacturers for specific products. For example, manufacturers may advise that cover strips with a minimum specified overlap should be used.

NOTE 2: For any situation or scheduling not covered by the guidance above, consult the manufacturer of the fire protection system to be added/abutted to the existing protection system

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3. Guidance on the junction between protected structural steelwork & unprotected secondary steelwork

The potential for heat transfer from unprotected secondary steelwork into protected structural steel must be considered. This topic is explained in detail in Advisory Note 21, available for download at www.asfp.org.uk.

In the case of boxed systems, the end of the system should be capped off to prevent passage of fire into the web of a beam or column. This means filling the end of the boxed system with at least the same board thickness, as used for the primary protection of the steel element, using tested fixing systems.

In the case of profiled spray systems, the unprotected steel should be masked prior to application of the spray such that a clean edge is achieved for the full depth of the sprayed system. Profiled board systems will be expected to have a square edge.

It should be noted that the protection distances explained in ASFP Advisory Note 21 and referred to here are solely in consideration of the effects of thermal transfer into a primary structural steel member and the consequent effect this would have on structural fire resistance. It is wrong to use this guidance when considering thermal conduction along a beam or column that passes through a compartment wall, in respect of the insulation criterion. Advice to deal with this scenario should be sought from the system owner of the penetrated wall design.

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