

AVB & Fireproofed Steel

Fireproofing, either Spray Fire Resistive Materials (SFRM) or Intumescent Fire Resistive Materials (IFRM), is **not a suitable substrate** for air/vapor barrier or Spray Polyurethane Foam (SPF) insulation.

The incompatibility poses a significant challenge for maintaining continuity in the air/vapor barrier (AVB) or spray foam (SPF) systems when fireproofed structural steel extends beyond the exterior wall (line of AVB). The team must find a solution to ensure the AVB or SPF remains continuous in this scenario.

Fireproof manufacturers have not tested their products to meet the air barrier requirements.

UL has stated, "Unless otherwise noted in the individual design or certification published in UL's Online Certifications Directory, the application of SPF or other insulation over Sprayed Fire Resistive Materials (SFRM) or Intumescent Fire Resistive Materials (IFRM) costing has not been investigated...which according to FCIA, "When UL states it has not been investigated, it likely means that there is no data to prove that the assembly will perform under fire conditions.



The AVB & SPF cannot be installed on or under fireproofing because it is not a proper substrate as indicated by AVB manufacturers. It has not been fire-tested to be on top or under, and cannot achieve the adequate pull-off strength.

So, if the soffit has fireproofed steel,

One solution is to install a secondary soffit to create a proper substrate.

Take lights into account as well.



When the design includes fireproofing on the exterior, ensure a solution to the AVB or SPF continuation challenge by including a soffit or a secondary soffit above the architectural soffit in the Architectural design and bidding documents.