

FIRETEX® Technical Bulletin

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### **Items in Close Proximity to FIRETEX® Protected Steelwork**

Items not attached to a fire protected element but located within the expansion gap (see FTB 001 for further information on expansion gaps), have the potential to impact the fire protection afforded by the intumescent coating.

Designers or contractors installing items in close proximity to steelwork protected with intumescent coatings should consider the potential effects on the fire protection performance, using this document for reference, and take any necessary actions to maintain the specified fire protection.

Where an item is within the expansion gap, a judgement will need to be made by a competent person or persons (e.g., the project's fire engineer) regarding whether the item will reduce the structural stability period of the construction element in the event of a fire.

The aspects which need to be considered are to what extent is the expansion restricted and the size of the restricted area. Where the majority of the expansion can occur, and the restricted area is small (e.g. a 15mm diameter pipe passing 40mm below a beam) the project authorities may decide that this will not impact the fire resistance period of the beam. On the other hand, where little expansion space exists, and the restriction is large (e.g. a 200mm wide cable tray running up a column with only 10mm of expansion space) some further actions may be required to ensure the intended fire protection is achieved.

It may be helpful in considering the above to bear in mind the Fire and Blast Information Group (FABIG Technical Note 13) recommends that no fire protection is needed for a secondary attachment with a contact area of no greater than 3000mm<sup>2</sup> per linear metre or per square metre of surface area. Similar guidance is given by UL in their Best Practice Guide for Passive Fire Protection for Structural Steelwork - FIRE RESISTANCE AND EXTERNAL EXPOSURE CHARACTERISTICS.

If an item was deemed to be likely to reduce the period of structural stability of a structural element, remedial action could include applying intumescent coating to the encroaching item or the installation of a suitably rated non-reactive fire protection product e.g., mineral wool or board.

### **Fire Resisting Elements or Constructions**

Where a fire resisting element or construction is in close proximity or direct contact with a structural component protected with an intumescent coating, no further protection may be required as long as the fire resisting element offers the required fire resistance protection time.

For example, if a blockwork wall is in intimate contact or within the required expansion space of a column protected with FIRETEX, the intumescent on the adjacent face(s) would be prevented or restricted from expanding fully however the blockwork will serve to protect the adjacent face(s) of the column in a fire. Intumescent coating applied to this face or faces would close off any gaps to the wall.

The information herein is subject to revision as a result of additional information or test evidence becoming available, please consult Sherwin-Williams to ensure you have the latest version.

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