



Intumescent Fire Seals Association

REFLECTIONS FROM AN IFSA ENQUIRY

A recent enquiry received *via* the website from a leading multi-national M&E company highlighted an issue which few surveyors or fire risk assessors recognise as a special case.

The questions related to fitting fire and smoke seals to door assemblies opening into a computer facility which is protected by a gaseous fire protection system. Before prescribing a set of fire and smoke seals for doors in this highly specialist area, it is critical to fully appreciate the processes involved. Obviously, if the detection system has performed its design function and set off the gaseous suppression system as soon as even an incipient fire was detected in the computer suite/rooms, there will be no fire in the suite itself during the proposed/planned normal operation. Should the suppression system malfunction or generally be overcome by the fire, then the door to the room may well have a normal fire separation function, especially if opening onto a protected corridor. However, the door has a primary function of retaining the suppression gas concentration for a duration sufficient to prevent fire development. This means fitting seals, similar to smoke seals but which might need to resist the higher pressures used with gas suppression systems, especially near the release nozzles, depending upon their location. When the door in this situation is a double leaf assembly, then the meeting stile will certainly benefit from double astragals at the meeting stile joint and incorporate an intumescent seal specification to suit this demanding configuration.

In this case, the IFSA secretariat were able to recommend a suitable specification once they were aware of all of the facts, but it so happens that this was not the normal single acting, double leaf 'recipe' and the guidance given in Information Sheet Nos. 1 and 5 is not wholly applicable. This is particularly so at the threshold where sealing is necessary for retaining the suppression gases, unlike Building Regulations where threshold sealing is not generally required. Therefore, if the doorset that you are specifying, or upgrading, is a door enclosing a computer facility which is itself protected by a gaseous suppression system, we suggest that you discuss your requirements with your IFSA fire seal supplier of choice, or failing that, the Secretariat on contactus@ifsa.org.uk

Computer suites are generally expensive installations and it is vital that an incorrect specification is avoided which either fails to contain the gases for long enough for them to be effective, or for an external fire to burn through the door too easily, thereby allowing smoke and hot gases to prematurely enter the computer suite and trigger the release of expensive suppression gases unnecessarily.

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