



16 March 2021
(by email)

Mr Carl Sherwood
Ministry of Housing, Communities & Local Government
2 Marsham St
Westminster
London SW1P 4DF

**Clarification on the possible requirement for an Insulation (I) classification
for Fire Dampers and Smoke Control Dampers**

Dear Mr Sherwood,

There is some confusion in the marketplace as to the interpretation of the requirements in Approved Document B (ADB) (volumes 1 and 2) for Fire Dampers (EN15650, EN1366-2, EN13501-3 and EN15882-2) and Smoke Control Dampers (EN12101-8, EN1366-10, EN13501-4). Therefore, clarification is required.

The most recent issue of ADB has extended the first clause associated with protection at compartment boundaries.

The word "integrity" found in the previous version (ADB 2006: rev 2018: V2 clause 10.8) has now been expanded to "load-bearing capacity, integrity and insulation" (ADB 2019: V1: clause 9.12, ADB 2019: V2: clause 10.12). Is this an intended technical change in the application of ADB to fire dampers and smoke control dampers? It is ambiguous and unclear to suppliers and users alike.

Traditionally, fire dampers and damper products used for smoke control in the UK have been steel based and do not provide an Insulation (I) characteristic. It has not been a requirement. If the UK damper supply industry is to adjust to the requirement for insulation, there must be a sufficient transition period to allow for the development of satisfactory products to meet a possible insulation requirement.

Both the original and current versions of ADB, provide requirements for Integrity (E) and for integrity and reduced smoke leakage (ES). But at no other point is an insulation requirement (e.g. EIS) requested (ADB 2006: rev 2018: V2 clause 10 etc and ADB 2019: V1: clause 9 etc and ADB 2019: V2: clause 10 etc. respectively).

Whilst EN13501-3 and EN13501-4 both provide information relating to insulation as an apparent requirement, the information provided later in the standards for both Fire dampers and smoke control dampers allows time intervals for both E and EI, thus appearing to allow either specification E or EI to receive a classification.

It is right to point out that this is different for multi-compartment smoke control ducts (EN1366-8, EN13501-4) which allows EI classifications only, but not for fire resisting ducts (EN1366-1, EN13501-3) which allows both E or EI. These are both supported in turn with an S classification. Both fire resisting and smoke control duct can have smoke control dampers associated with them.

Please could you confirm with some explanation whether the insulation (I) classification is required at all, or if it is, in what specific applications.

Please can this be done separately for both:

- 1) Fire dampers
- 2) Smoke control dampers

Please let us know how this clarification information will be provided to the regulators and other interested parties going forward.

Thank you,

Michael Duggan

Technical Manager

On behalf of:

HEVAC Air Distribution Manufacturers Group, and
HEVAC Fire & Smoke Damper Committee

From: [Carl Sherwood](#)
To: [Mike Duggan](#)
Subject: Smoke and fire dampers
Date: 19 May 2021 16:15:00

Mr Duggan

Thank you for your recent correspondence on fire dampers and the interpretation of paragraph 10.12 of ADB Volume 2. Specifically, whether fire dampers and also fire and smoke dampers now require performance in terms of insulation (I) following the updates made to Approved Document in 2019.

The updated ADB 2019 edition sought only to clarify the existing provisions in ADB and reduce the potential for mis-understanding. There are no changes to the technical requirements, including for fire dampers or fire and smoke dampers. The provisions in paragraphs 9.18-9.22 (ADB 2019 Volume 1) and paragraphs 10.17-10.21 (ADB 2019 Volume 2) set out the fire resistance requirements for fire dampers and fire and smoke dampers used within ventilation ducts and flues passing through fire-separating elements as described in Method 1 and 4 of paragraph 9.12 (ADB Volume 1) and paragraph 10.12 (ADB Volume 2):

10.19 Fire dampers should meet both of the following conditions.

- a. Conform to BS EN 15650.*
- b. Have a minimum **E classification** of 60 minutes or to match the integrity rating of the fire resisting elements, whichever is higher.*

10.20 Fire and smoke dampers should meet both of the following conditions.

- a. Conform to BS EN 15650.*
- b. Have a minimum **ES classification** of 60 minutes or to match the integrity rating of the fire resisting elements, whichever is higher.*

The minimum guidance set out above does not include an insulation (I) classification requirement.

You also ask about the fire resisting requirements of ventilation ductwork and flues where passing through fire-separating elements. For ducts passing through protected escape routes, as shown in diagram 10.2 (ADB Vol 2 2019), both integrity and insulation fire resistance classifications should be achieved. In all situations, the passage of ductwork through a fire separating element should seek to maintain fire separation of the element.

ADB sets minimum guidance for common building situations, and in all cases those undertaking building work should ensure the functional requirements of the Building Regulations are met when considering the necessary performance.

Please feel free to share this email.

Kind Regards



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