



## **ADCAS Guidance - Fire Rated Ductwork (FRD)**

References :

- A. DW144 (2013)
- B. B&ES Guidance Note

### **1. The Construction Products Regulations (CPR)**

Under the requirements of the Construction Products Regulation 2011 it has become mandatory for manufacturers supplying products into the construction industry to draw up a declaration of performance and apply CE marking to any of their construction products which are covered by a harmonised European standard (hEN) or conform to a European Technical Assessment (ETA), since 1 Jul 13.

By definition a construction product is any product, which is produced and placed on the market for incorporation in a permanent manner in construction works and the performance of which has an effect on the performance of those works. This is a major change, as CE marking under the provisions of the previous Construction Products Directive (CPD) was voluntary in the UK until 1 Jul 13.

In addition, Approved Document 7 of the Building Regulations provides further clarification as far as the UK is concerned, by stating that any projects started before 1 Jul 13, or work subject to a building notice, with full plans application or initial notice submitted before 1 July 13 can still be constructed either to the old BS, or to the new BS EN Standards.

### **2. Fire Rated Ductwork (FRD)**

For the purposes of this guidance note, FRD is categorised as follows:

- a. Ductwork for smoke extract
- b. Ductwork (fire rated)

Currently, smoke extract ductwork must be CE marked (within the field of application) to fully meet the legal requirements of the CPR, because BS EN 12101 applies.

For fire rated ductwork however, the key document, draft BS EN 15871 – Fire resistance tests for service installations – Ducts - has not been finalised and ratified.

The current status of EN 15871 is that it is under review by the various EU countries, including the UK. The draft calls up EN 1366 as the relevant testing standard. Members are advised that once draft EN 15781 becomes a European Standard, the existing BS 476 Part 24 will be superceded and withdrawn by BSI.

### 3. Formal Position

- 3.1 Members who manufacture smoke extract ductwork must ensure that it has been tested in accordance with the requirements of BS EN 12101 and is CE marked.
- 3.2 Members who manufacture FRD should ensure that any ductwork placed on the UK market has been tested in accordance with either the current British Standard BS 476 Part 24 or BS EN 1366-1

As no harmonised European Standard currently exists, products cannot be CE marked.

Once the draft harmonised European Standard EN 15871 is completed and ratified by CEN, there is likely to be a period of time, typically 1 year, to allow industry to make the transition to the new arrangements.

It will then become mandatory under the CPR to only supply CE marked product into the market, that has been tested to EN15871.

- 3.3 If they have not already done so, members are advised to use the time available to them before the draft EN 15871 is ratified to have their fire rated products tested to BS EN 1366.

### 4. Relevant European Standards

Standard	Title	Reference
EN12101-7	Smoke and heat control systems. Smoke duct sections	Smoke control ductwork
prEN15871 (draft)	Fire resistance tests for service installations – Ducts	Ducts for ventilation, pressurisation and kitchen extract

The above Standards require that fire rated duct is tested to at least one of the following Test Standards.

Standard	Title	Reference
EN1366-1	Fire resistance tests for service installations - Ducts	Ducts for ventilation, pressurisation and kitchen extract
EN1366-5	Fire resistance tests for service installations - Service ducts and	Ducts for cables, pipes

	shafts	and other service
EN1366-8	Fire resistance tests for service installations – Smoke extraction ducts	Ducts for multi compartment smoke extraction
EN1366-9	Fire resistance tests for service installations. Single compartment smoke extraction ducts	Ducts for single compartment smoke extraction

Ducts larger than 1000 x 1250mm rectangular or 1000mm circular are of a different pressure class than defined in the Direct field of Application, and will need to be tested in accordance with the extended field of application test procedures below.

## 5. Extended Fields of Application Standards for FRD

5.1 Extended field of application standards (EXAPs) define how test results may be extended by a notified body to allow other applications and design changes. They are very limited and cannot simply be applied by a manufacturer.

<b>Standard</b>	<b>Title</b>	<b>Reference</b>
EN15882-1	Extended application of results from fire resistance tests for service installations - Ducts	Ducts for ventilation, pressurisation and kitchen extract
prEN15882-5	Extended application of results from fire resistance tests for service installations – Smoke control ducts?	Smoke control ducts etc.

5.2 Classification Standard for ducts tested to BS EN1366- 1, 5, 8 or 9 & BS EN 15882 – 1 or 5, define how products may be classified following successful testing.

Standard	Title	Reference
EN13501-3	Fire classification of construction products and building elements. Fire resisting ducts and fire dampers	Ducts for ventilation, pressurisation and kitchen extract
EN13501-4	Fire classification using data from fire resistance tests on	Smoke control ducts etc.

	components of smoke control systems	
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