ARTICLE (IFP MARCH 2015)

CE marking explained

Niall Rowan, technical officer for the European Association of Passive Fire Protection and the Association for Specialist Fire Protection investigates the impenetrable world of CE marking, explaining its jargon and acronyms and providing an informed view of the process

The Construction Products Regulation (CPR) is intended to provide for the free movement of construction products across EU countries. It can be summed up in the following statement:

"Manufacturers who have had their products successfully evaluated against a European Technical Specification, which covers all the parameters to ensure that the products is fit for purpose, can CE mark them demonstrating that the declared product performance has been obtained".

It sounds so easy doesn't it? Do a few tests; have somebody take a quick look round your factory and a market of 450 million consumers is ready for the taking. If only… in reality there are a number of hoops to jump through depending on whether CE marking is possible (it isn't in some cases) or mandatory (it is in some cases) and what type of European Technical Specification is used. So what do you need to know?

European Technical Specifications – what are they?

European Technical Specifications are the 'common technical language' of the CPR and the route to CE marking. They are NOT fire test standards or indeed any other type of test method. They are the specification which contains all the product characteristics necessary to determine a product's fitness for purpose in its intended use. So, for example, , the European Technical Specification for a flooring material, will include recommendations for its reaction to fire performance, but more importantly, it will also contain recommendations for resistance to abrasion, hard and soft body impact and other necessary floor characteristics . Some of these products characteristics e.g. reaction to fire are legislated by Member States and, in these cases, the European Technical Specification must address them adequately.

There are two types of European Technical Specification:

1. **European Product Standards (hENs)** which are drafted by CEN the European Standards body; and
2. **European Assessment Documents (EADs)** which are written by EOTA, the European Organisation for Testing and Assessment.

Which type of European Technical Specification is used was decided by the European Commission some time ago but unfortunately, there was no logic to the process. For example, doors are covered by hENs, but the wall into which they are fitted is covered under an EAD. This curious dual system is probably the single most confusing and annoying aspect of the CPR and the one which gives rise to whether CE marking is mandatory or not.

What is in the European Technical Specification?

Each European Technical Specification lays down the characteristics that the product must satisfy including the pan-European test methods such as fire tests that are used to measure them. The characteristics are grouped under the following Basic Works Requirements:

- Mechanical resistance and stability
- Safety in case of fire
- Hygiene, health and environment

- Safety in use
- Protection against noise
- Energy economy and heat retention
- Environmental Product Declarations
- Sustainable use of natural resources (new)

Assessment of Verification of Constancy of Performance AVCP

The European Technical Specification also includes the system of Assessment of Verification of Constancy of Performance (AVCP) for each product. These systems vary from, at the lowest rigour, system 4 (Manufacturer's declaration – "I say my product is ok so it is ok") through to, at the most rigorous end, system 1 (third party product certification – "the certification body I have used who is totally independent of me has said my product is ok, so it is really ok").

Most fire resisting products such as fire doors etc. are system 1 (highest rigour), while most products with a reaction to fire performance are system 3; unless e.g. a flame retardant is added or there is some other process used to improve the fire performance, in which case they also become system 1. What do these systems mean? Take a look at the table below:

System of AVCP	**Tasks for the Manufacturer**	**Tasks for the Certification body, Technical Approval Body or Test laboratory**
System 1	Factory Production Control (FPC) Make Declaration of Performance CE Mark product	Initial Testing Initial inspection of factory & FPC Issue a Certificate of Conformity Continuous surveillance
System 3	Factory Production Control (FPC) Make Declaration of Performance CE Mark product	Initial Testing
System 4	Initial Testing	Nothing

So, for a product that is system 3, all that a manufacturer needs to do is organise the relevant tests with an independent laboratory, document his factory production control system, make a declaration of performance and then he can CE mark his product.

However, for a product that is system 1, the manufacturer has to involve a third party body (certification body or technical approval body) in the process. This is a crucial difference – not because it makes it more complicated and expensive – but because it brings in the involvement of an independent third party to ensure the quality of the product. It is a crucial difference and is why most fire products are system 1 because they are deemed to be critical products for life safety.

For a product that is system 1, the third party body will select the test specimens and organise the relevant tests with an independent laboratory. Assuming the test results are ok and that the manufacturer has an acceptable factory production control system, the third party body will issue a certificate of conformity of the product with the European Technical Specification. Then the manufacturer can make a declaration of performance and CE mark his product accordingly.

Timescale

The CPR came into force in April 2011 and its provisions became effective in July 2013. This means mandatory CE marking for some construction products is already in force.

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CE marking – is it mandatory, voluntary or even possible?

If the product is covered by a published and available European Product Standard (hEN), then CE marking is mandatory. However, many of these hENs have simply not been written yet or have not been completed, so while they are still being written, CE marking is not yet possible.

If the product is covered by a published and available European Assessment Document CE marking is possible but is only voluntary; it will not and will never be mandatory. Many stakeholders in the construction industry are labouring under the misunderstanding that CE marking is mandatory for all construction products. This is not the case.

So, what the product is determines whether CE marking is mandatory or not. By any reasonable consideration, this is a nonsensical situation and is the result of a previous decision by the European Commission to remove mandatory CE marking under the predecessor to the CPR. It surely makes no sense to make CE marking mandatory for e.g. fire dampers and fire door ironmongery, but not structural fire protection products or penetration seals. On what basis is one more important than the other?

Industry initiatives on mandatory CE marking

In order to create a level playing field in the European market by making CE marking mandatory for all passive fire protection products, the European industry has been in dialogue with the European Commission. Representatives from the European Association for Passive Fire Protection (EAPFP, of which the ASFP is a member, and the European organisation for paints and printers' inks and varnishes (CEPE) have met with the European Commission over the last two years. The aim of the meetings was to explore the possibility of making CE marking mandatory for all products by 'converting' the European Assessment Documents (EADs) into product standards (hENs). To do this requires a mandate (an instruction) from the European Commission to CEN to draft appropriate product standards to cover these products.

The meetings have by and large been successful and a draft mandate covering the products manufactured by EAPFP and CEPE members is now slowly working its way through the Commission and CEN. However, progress has not been smooth, with some objections, particularly from some bodies who work with European Assessment Documents. However, the industry remains undeterred and will be successful in its endeavour to obtain a mandate for CEN to produce hENs which will make CE marking mandatory for all passive fire protection products and thus create a level playing field.

What is the situation for each type of Passive Fire Protection Product?

The state of play for each passive fire protection products as at December 2014 was as follows:

Product	**CE Marking status (December 2014)**	
	European Technical Specification	
	EAD*	**hEN**
Reactive Coatings for Fire Protection of Steel Elements	**Voluntary** under ETAG* 18-2	EN 16623 prepared by CEN TC 139 WG 13
Renderings and Rendering Kits intended for Fire Resisting Applications	**Voluntary** under ETAG* 18-3	To be prepared in CEN once a mandate for these products is agreed
Fire protective board, slab and mat	**Voluntary** under	As above

products and kits	ETAG* 18-4	
Fire Stopping and Fire Sealing Products Part 2: Penetration Seals	**Voluntary** under ETAG* 026-2	As above
Fire Stopping and Fire Sealing Products Part 3 : Linear Joint and Gap Seals	**Voluntary** under ETAG* 026-3	As above
Reactive & Mechanical Air Transfer Grilles, (Fire Resistant and Cold Smoke Control Fire Resistant Types)	**Voluntary** under ETAG* 026-4	As above
Cavity Barriers	**Voluntary** under ETAG* 026-5	As above
Fire Resisting Duct Sections	**Voluntary** under ETAG* 018-4	prEN 15871 agreed to go for CEN Enquiry
Smoke Control Duct Sections	**N/A**	**Mandatory** from 1 July 2013 under EN 12101-7
Fire Resisting Dampers	N/A	**Mandatory** from 1 July 2013 under EN 15650
Smoke Control Dampers	N/A	**Mandatory** from 1 July 2013 under EN 12101-8
Fire Doors	N/A	**Mandatory from 2019** EN 16034 now available
Fire Door Hardware	N/A	**Mandatory** under several standards
Gypsum Boards	N/A	**Mandatory** under EN 520

EAD* European Assessment documents have been developed from ETAGs which were used under the predecessor to the current Construction Products Regulation. All ETAGs will be changed to EADS in the next year or so.

How can the EAPFP/ASFP help?

The EAPFP/ASFP have published a short (6 page) guide to the Construction Products Regulation for the benefit of its members and other stakeholders. The document is free to download from the EAPFP and ASFP websites (see http://is.gd/F4pmhu). It contains an expanded version of the table above and is updated regularly.

The ASFP/EAPFP will continue to work to make CE marking mandatory for passive fire protection products to create a level playing field in the European market.
For further information on passive fire protection in the UK and Ireland, visit www.asfp.org.uk; for information on European issues relating to passive fire protection visit www.eapfp.org

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Notes to Editors

EAPFP was formed in 1988 to act as a European voice on behalf of national associations representing manufacturers, contractors and other institutions involved in the fire protection to steelwork, timber, and other passive fire protection applications, including penetration seals and ductwork.

Countries represented by EAPFP members include Austria; Belgium; Cyprus; Denmark; France; Germany; Ireland; Italy; Netherlands; Norway; Russia; Spain; and UK.

The Association campaigns to raise the standard of fire safety in buildings and offers a range of publications and guidance notes in several languages. The EAPFP also has representation on the European Union Technical Committees involved in developing product standards across Europe.

For further information:

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