

## Fire testing, fire classification and CE-marking of building products in accordance with the new European Fire Classifications



## Testing, certification and type approval of building products

● Major changes are taking place in testing and certification / type approval. The present Swedish system of approval is changing to a European system according to the EU Construction Products Directive. One of the effects will be that the building products industry will have access to a much larger market, although this will also mean that there will be competition with and from manufacturers in other countries. We have prepared this guide to help you in marketing your products in the EU. In addition to common questions and answers, we have included a glossary and several useful links. We hope that you find the material useful.



## **What does the Euroclass fire classification system involve?**

The Euroclass system means that there are now common test methods and common fire classes of building products throughout the EEA, i.e. the EU plus Norway, Lichtenstein and Iceland.

## **What changes will there be to fire classes?**

The Swedish requirements are set out in the National Board of Housing, Building and Planning's Building Regulations, BFS 1993:57, with amendments up to and including 2002:19. Another revision is planned to finish in 2011.

**? Which products are covered by the new regulations?**

All products covered by the EU Construction Products Directive including signal and power cables.

**? What do the new fire classes in the new Swedish Buildings Regulations look like?**

**Examples of classes for materials, cladding and surface linings**

A1 (non-combustible materials)

A2-s1, d0 (non-combustible materials)

B-s1, d0 (Class I surface linings)

C-s2, d0 (Class II surface linings)

D-s2, d0 (Class III surface linings)

A1<sub>fl</sub> (non-combustible flooring materials)

C<sub>fl</sub>-s1 (floors in escape routes, Class G)

D<sub>fl</sub>-s1 (floors in public assembly halls etc., Class G)



## What fire test methods are involved?

### **The Euroclass-system**

EN 13823 (SBI)  
EN 9239-1  
ENV 1187 test 2  
EN ISO 1182  
EN ISO 1716  
EN ISO 11925-2

### **The Swedish system**

NT Fire 004  
NT Fire 007  
NT Fire 006  
SS-ISO 1182

There are also standards for fire classification of building products, EN 13501-1 and EN 13501 - 5, which describes the Euroclasses. SP Fire Technology can issue classification reports for your products.

## **?** Can Swedish fire classes be compared with the European classes?

SP Report 2001:29 presents a comparison between Swedish and European fire testing methods, and is included in SP's information package on EU fire testing.

## **?** What documents can be helpful?

- Product standard for each product.
- Classification standards, e.g. EN-13501-1.
- Commission Decision 96/603/EEC.
- SP's EU-package on fire certification and fire testing.

## **?** Where can I find these documents?

- [ec.europa.eu/enterprise/construction](http://ec.europa.eu/enterprise/construction)
- [Ec.europa.eu/enterprise/newapproch](http://ec.europa.eu/enterprise/newapproch)
- [www.cenorm.be/](http://www.cenorm.be/)
- [www.sis.se](http://www.sis.se)
- [www.sp.se](http://www.sp.se) (see Fire Technology)

## **?** What will happen to my national type approval certificates?

When CE-marking of products is introduced, there will be a transition period during which

both the old-style type approval certificates and the new CE-marking procedure will exist side by side. As the product standards, on which CE-marking is based, will be published at different times, CE-marking for the particular products concerned will also start at different times.

**?** **What will happen with my national type approval certificates if there are no standards for the particular products?**

For these products, you can choose the Euroclass system or national classes. Products cannot be CE-marked if there is no product standard.

**?** **Who has developed the Euroclass system?**

The work has been carried out in co-operation between fire technical experts and regulators from the members states of the EU.

SP Fire Technology made a special contribution in the development of measurement technology and the interpretation of measured data.

## **What are the benefits of the CE symbol?**

The system of common product marking throughout the EU considers the following aspects:

- Mechanical resistance and stability
- Safety in case of fire
- Hygiene, health and the environment
- Safety in use
- Protection against noise
- Energy economy and heat retention

CE-marking opens the way to the EU market. CE-marked products meet the specifications in the EU Construction Products Directive.

## **What testing is needed for CE-marking?**

- Fire testing
- Testing of other properties etc. as given in the relevant product standards.

## **How is compliance with the CE-marking requirements monitored?**

In various ways, including a quality control scheme monitored by the manufacturer himself or by a third party (e.g. SP). The required procedure is specified in each product standard.

## **Who can provide assistance with CE-marking?**

SP and SITAC are Notified Bodies, and in many cases can provide all the technical and formal services needed for CE-marking.

**SP Certification:** Contact Lennart Aronsson,  
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## Glossary

Euroclass	The European fire classes for construction materials.
Harmonised standard	A standard published by CEN.
Construction Products Directive	EU legislation that sets out important requirements that must be incorporated in national legislation.
Type approval certificate	National proof that a product fulfils requirements in the national building regulations.
Product standard	Specific standard for particular products or groups of products, setting out all relevant required properties.
Classification standard	Standard for classification, e.g. EN 13501-1
SS	Swedish standard
CEN	European Committee for Standardization
EN	European standard issued by CEN
ISO	International Organization for Standardization
CE-marking for the EU	Common (EU-wide) product marking.
Manufacturer's own inspection	Product quality control performed by the manufacturer.

## **Contact persons**

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## **General matters relating to the Euroclassification regulations system**

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**If you are selling your products  
on the European market – get them  
fire-tested to the Euroclass standards  
as soon as possible.**

**[www.sp.se](http://www.sp.se)**



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