

# UNDERSTANDING **EUROCLASSES** FIRE CLASSIFICATIONS

### and PERFORMANCE DECLARATIONS





# **PREAMBLE**

The purpose of carpets' fire classification is not to check the resistance to burning of cigarettes, but to calculate, in case of fire, the flammability and the speed of propagation of the flame in a material laid on the ground.





# REQUIREMENTS



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**At the European level**, the decree of 21 November 2002 on the reaction to fire of construction and planning products now introduces the "euroclasses" of reaction to fire.

These are more complete than the old French classification, taking into account the fumes released as well as any projected droplets.

This regulation on the reaction to fire of construction products requires performance evaluation according to the new Euroclasses system, once the CE marking of the product has entered into force.

Carpets and textile floor coverings are classified as 'construction products' by Council Directive 89/106 of 21 December 1988. Since 2013, the Construction Products Regulation (CPR - no. 305 / 2011) replaces the Construction Products Directive (DPC - 89/106 / EEC).

The CPR promotes the placing on the market and free movement of construction products, and meets the basic regulatory requirements of construction works by CE marking. This regulation is applicable by all member states of the Union. It imposes multiple obligations on the part of manufacturers, distributors and importers. For example, providing useful information on the essential characteristics of the product (**Declaration of Performance**) becomes essential to comply with this new legislation. The CE marking on the product or packaging also becomes proof that the product complies with the Community requirements by manufacturer's commitment.





European harmonization of building products reaction to fire tests

# **EUROCLASSES**

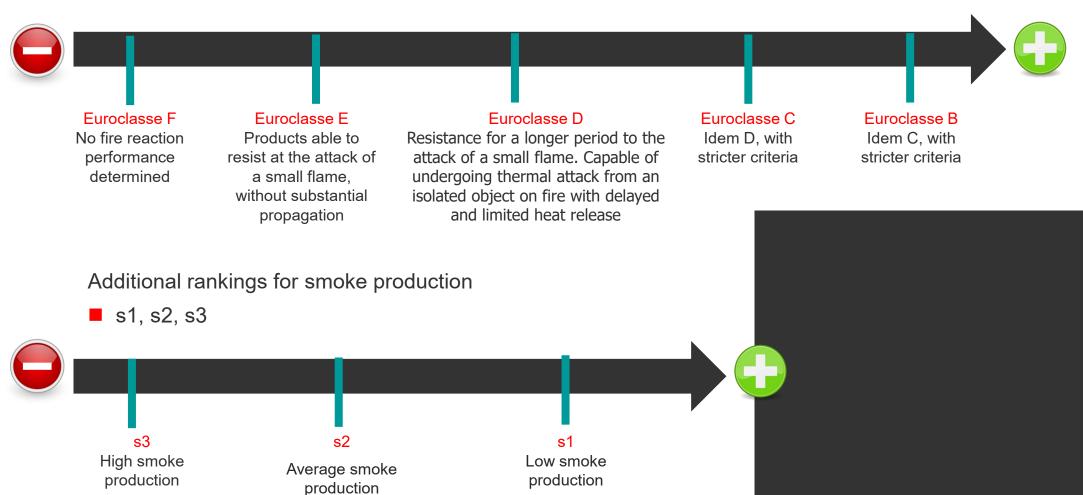
7 categories of classification relate to the fire reaction of floors from A1fl (fl for floor) to Ffl. Only the first 6 categories correspond to an M classification.



### 5 concern the carpet

Energy contribution / Gradual thermal demand

■ B, C, D, E, F





### Equivalent

Classification in accordance with NF EN 13501-1 Table IV-1 taken from the decree of 21 November 2002 on the reaction to fire of construction and landscaping products

|     |    | Requirement |
|-----|----|-------------|
| Bfl | s1 | M3          |
| Bfl | S2 | M3          |
| Cfl | s1 | M3          |
| Cfl | s2 | M3          |
| Dfl | s1 | M4          |
| Dfl | s2 | M4          |

**German standard**: Classes Cfl and Bfl-s1 meet class B1 of German standard DIN 4102



#### Test methods

To assign the Euroclasses, 2 tests are carried out:

#### ■ the small flame test (NF EN ISO 11925-2):

The objective is to evaluate the ignitability of a product exposed to a thermal solicitation weak and localized, simulated by a small flame.

#### european radiant panel test (NF EN ISO 9239-1) :

The objective is to determine the critical radiant flux from which a flame front stopp to propagate on a horizontal surface consisting of a flooring sample.





#### Colors tested

The test is carried out on **one color** of the range but is, of course, **valid for all the colors of the range**.

European Standard NF EN 14041: "the color and type of design of a floor covering have no influence on the fire behavior, unless their modification causes a change in the composition or other parameters, as mentioned above ".







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#### **RAPPORT D'ESSAI 10-907**

Rapport de classement - Adaptation

#### Echantillons recus :

Tapis aiguilleté plat avec couche d'usure 100% solypropylène avec imprégnation à base de latex SBR. Référence commerciale: Expostyle Coloris: bleu

Date de production 22/10/2010, nº 1915785, n° bobine mère: 100193900

Reçu le 29/10/2010

But de l'essai : détermination du comportement au feu

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### Validity limit

**No validity limit** on fire classification reports for a floor covering subject to CE marking under the life of the product, and as long as the product composition remains unchanged.



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# ABOUT THE DOP...

#### **DOP**: declaration of performance

As of 1 July 2013, under the Construction Products Regulation (CPM - No. 305/2011), the manufacturer has the obligation to draw up a declaration of performance, leading to CE marking any product covered by a harmonized European standard,

Textile floor coverings show a harmonized standard: EN 14041.

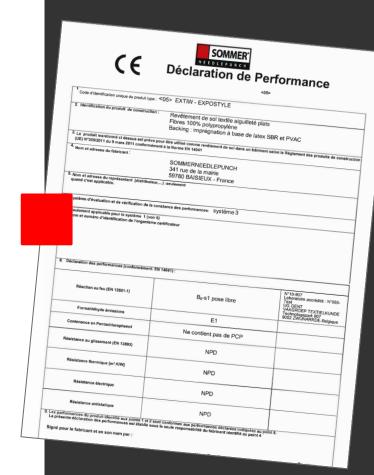
The essential characteristics for Sommer products are:

- Fire classification
- Emission of formaldehyde
- PCP (PentaChloroPhénol) content

The DOP, which has been mandatory since 2013, is being put on the market without any limit of validity.

This is a statement made by the manufacturer.

To prove a fire performance, you need the ranking and the DOP (since 2013).



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