## **EUROPEAN STANDARD**

European Standard EN 13501-1 provides the reaction to fire classification procedure for all products and building elements. According to this Standard, reaction to fire is the response of a product in contributing by its own decomposition to a fire to which it is exposed, under specified conditions (not to be confused with the fire resistance).

Products are considered in relation to their end use application, here divided into the main categories:

- construction products;
- flooring;

Construction products are classified according to harmonized test methods in Euro classes A1, A2, B, C, D, E and F. Products classified in a given class are deemed to satisfy all the requirements of any lower class.

Products classified in A1 and A2 classes are non-combustible (cement, concrete, minerals, glass, fiberglass, rock wool, ceramic, etc.), materials certified from B to F are combustible in ascending order. Flooring materials are classified according to the same classes A1, A2, B, C, D, E and F followed by the abbreviation "fl" flooring.

|   | Classification according to European Standard EN 13501-1 |  |  |                       |                       |
|---|--|--|--|-----------------------|-----------------------|
| Definition  | Construction products                                    |  |  | Floorin<br>gs         |                       |
|   | A1   |  |  | A1 <sub>fl</sub>      |                       |
| non-combustible materials                                 | A2 - s1<br>d0 A2 -<br>s2 d0<br>A2 - s3<br>d0             | A2 - s1<br>d1 A2 -<br>s2 d1<br>A2 - s3<br>d1 | A2 - s1<br>d2 A2 -<br>s2 d2<br>A2 - s3<br>d2 | A2 <sub>fl</sub> - s1 | A2 <sub>fl</sub> - s2 |
| combustible materials - very limited contribution to fire | B - s1<br>d0 B -<br>s2 d0<br>B - s3<br>d0                | B - s1<br>d1 B -<br>s2 d1<br>B - s3<br>d1    | B - s1<br>d2 B -<br>s2 d2<br>B - s3<br>d2    | B <sub>fl</sub> - s1  | B <sub>fl</sub> - s2  |
| combustible materials - limited contribution to fire      | C - s1<br>d0 C -<br>s2 d0<br>C - s3<br>d0                | C - s1<br>d1 C -<br>s2 d1<br>C - s3<br>d1    | C - s1<br>d2 C -<br>s2 d2<br>C - s3<br>d2    | C <sub>fl</sub> - s1  | C <sub>fl</sub> - s1  |
| combustible materials - medium contribution to fire       | D - s1<br>d0 D -<br>s2 d0<br>D - s3<br>d0                | D - s1<br>d1 D -<br>s2 d1<br>D - s3<br>d1    | D - s1<br>d2 D -<br>s2 d2<br>D - s3<br>d2    | D <sub>fl</sub> - s1  | D <sub>fl</sub> - s1  |
| combustible materials - highly contribution to fire       | Е  |  | E -<br>d2                                    | E <sub>fl</sub>       |                       |
| combustible materials - easily flammable                  | F  |  |  | F <sub>fl</sub>       |                       |