European requirements for testing and classification of the burning behavior of floor coverings

Testing and assessment of reaction to fire performance of construction products (including, but not limited to, floor coverings) is uniformly regulated within the European Union (EU) and the European Economic Area (EEA), whereby the testing of floor coverings is in accordance with EN ISO 9293-1 (Radiant Panel Test) and / or EN ISO 11925-2 (Single Flame Test) and the classification is to be carried out in accordance with EN 13501-1. This invalidated the former national rules in these areas and replaced them with this European regulation.

The burning behavior of floor coverings is expressed in classes A to F, with subscript fl (fl stands for flooring), where classes A (A1 and A2) are "nonflammable", classes B and C are "hard flammable", classes D and E "normal combustible" and class F is "easily combustible". In addition to the fire behavior, an indication of the development of smoke (smoke emission) is also made in the classification; the suffix "s1" means "low smoke emission", the suffix "s2" stands for "strong smoke emission". The former designation "hard-to-burn / low-smoke" (B1/Q1) in Austria, fire index 5.3 in Switzerland and B1 in Germany is thus now expressed by the European classification "Cfl-s1" or "Bfl-s1".

Regarding the required fire classes for the individual types of buildings and areas of application, there is no unique European regulation; here, the respective national regulations still apply. However, it can be assumed that for most public areas at least a classification Cfl-s1 is required, while for private areas the fire classes Dfl and Efl are usually sufficient enough. In that context, it should also be noted, that construction products with the fire classification F are generally prohibited or severely restricted in some Member States.

All described tests and classifications are carried out by OETI, Vienna.

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