

Fire Protection Standards for Interior Decoration Austria

When talking about materials for interior decoration, a general distinction must be made between

- **building products** (building materials and components; this includes e.g. **floor, wall and ceiling coverings**), and
- **other furnishing materials** such as **table and bed linen, curtains and drapes, upholstery fabrics or loose carpets** ("fitted carpets"), which are not building products.
-

Building regulations or technical building regulations relating to the building regulations of the building regulations (i.e. the OIB guidelines) only contain specifications on the fire behaviour of building products. The basis for this is the Construction Products 2013 and the requirements according to the OIB Guideline 2, Table 1a. -Guideline 2, Table 1 a.

(Note: in Lower Austria and Upper Austria the OIB guidelines 2011 are still in force, in all other federal provinces the OIB guidelines 2015 apply).

The Construction Products Regulation requires manufacturers of construction products to draw up a declaration of performance for each product for which a harmonised standard (hEN) has been published in the Official Journal of the EU - and for which the coexistence period referred to in this notice has expired. The same applies to construction products for which a European Technical Assessment has been issued. Construction products for which a declaration of performance has been drawn up must be CE marked. This has also changed slightly. **Construction products that were already CE marked before 1 July 2013 must also bear the new declaration of performance and CE marking if they are placed on the market after 1 July 2013.**

However, the previous test certificates, attestations and European technical approvals can be used as a basis for this.

Construction products that were already placed on the market (i.e. supplied by the manufacturer for distribution or use against payment or free of charge) before 1 July 2013 can continue to be made available on the market by distributors with the "old" CE marking in accordance with the Construction Products Directive.

ÖNORM EN 13501-1, which applies to the classification of the fire behaviour of building products, **replaced the former ÖNORM B 3800 Part 1**. With the adoption of this European standard, in addition to new test methods, new designations were introduced instead of the previously used classifications, such as B1/Q1/Tr1 (hardly combustible/low smoke/non-dripping):

Thus, **fire behaviour is now indicated with letters from A (equivalent to non-combustible) to F (equivalent to easily combustible), smoke formation with s1 (low smoke development), s2 or s3 (strong smoke development) and drip formation with d0 (non-drip), d1 (drip) or d2 (ignition-drip).** The equivalent of the original B1/Q1/Tr1 classification is C-s1-d0 according to EN 135011.

Note: Classifications for floor coverings are indicated by the subscript "fl", e.g., Cfl-s1 (= successor to B1/Q1; drop formation not relevant for floor coverings).

These new designations thus replace the indications of reaction to fire contained in the withdrawn ÖNORM B 3800 Part 1 (flammability: e.g. "hardly flammable - B1", smoke formation: e.g. "weakly smoking - Q1" and drop formation: e.g. "not dripping - Tr1").

The respective requirements for the fire behaviour of building products are specified in Table 1 a of OIB Guideline No. 2 "Fire Protection" depending on the respective building class. For building products, in addition to the requirements for fire behaviour, requirements for fire resistance are also regulated by building law (Tab. 1 b of OIB-RL 2).

For furnishing materials, such as curtains, upholstery fabrics or decorative materials, other standards apply, such as EN 13773, ÖNORM B 3825, ÖNORM B 3822 or ÖNORM A 3800-1. In some cases, the "old" designations (Q1/2/3 or Tr1/2/3) are still used; the designation "B1" no longer appears in this standard, only the term "hardly combustible", which repeatedly causes confusion in practice.

The respective requirements for these interior furnishing materials are defined apart from building specifications: e.g. in social regulations for care facilities, event laws or fire regulations. For example, special requirements for textiles can be specified for use in care facilities or for decorations at events. Precise requirements are generally laid down in the notice of use for the respective object or event. for the respective object or event.

These regulations and specifications can naturally vary from "object to object", but also from "federal state to federal state".

Table 1: Applicable classification/testing standards for interior furnishing materials

Interior finishing materials	Fire behaviour	Smoke behaviour	Drip behaviour
Building products ¹⁾	EN 13501-1	EN 13501-1	EN 13501-1 ²⁾
Curtains and curtain-like products	EN 13773	ÖNORM A 3800-1	EN 13772
Upholstery fabrics	ÖNORM B 3825	ÖNORM A 3800-1	nicht zutreffend
Decoration materials	ÖNORM B 3822	ÖNORM A 3800-1	ÖNORM B 3822
Other materials	ÖNORM A 3800-1 ³⁾	ÖNORM A 3800-1	ÖNORM A 3800-1 ³⁾

This also includes all floor, wall and ceiling coverings 2) Not applicable to floor coverings 3) Excluding construction products and product types for which there are specific standards for testing reaction to fire.

Since May 2010, the verification of a certain fire resistance class of materials has to be provided exclusively by test certificates according to European standards (EN). This change led to misunderstandings in practice, because the opinion was often established that all products must be tested according to EN - and EN 13501-1 was almost always mentioned here.

In reality, however, EN 13501-1 (former standard: ÖNORM B 3800 Part 1) refers exclusively to building products, but not to the testing and assessment of the fire behaviour of other interior furnishing materials (such as curtains, furniture fabrics or decorative materials).

Table 1 provides an overview of the classification (testing) standards currently valid in Austria for demonstrating the fire, smoke and dripping behaviour of the individual interior furnishing materials.

In addition, some of the regulations also vary by province. Therefore, there is no general standard that is generally valid for interior furnishing materials. This does not apply to building products - here the regulations are clearly defined in OIB RL-2 and EN 13501-1.

There is no CE marking for furniture fabrics, curtains and other furnishing materials. Here it was only partially possible to achieve a European standard (e.g. for curtains EN 13773 and EN 13772), but not for others (e.g. for upholstery fabrics).

Although there is a European test standard (EN 1021 Parts 1 and 2), there is no classification standard, so that in Austria the national ÖNORMEN B 3825 and A 3800-1 are still used for testing and assessing fire and smoke behaviour (see Table 1, applicable classification/testing standards for interior furnishing materials).

A striking example of this is the German standard DIN 4102, whose classification "hardly combustible" is the counterpart to "B1" in Austria.

However, in Germany, the assessment of "hardly combustible" does not take into account whether the material drips or not. In Austria, on the other hand, the dripping behaviour of certain materials (e.g. decorative materials, especially if they are arranged "overhead") is also included in the assessment. **A material that meets the conditions of ÖNORM B 3822 for decorative materials must also be "non-drip" and "low-smoke".** For example plastic-sheathed parts of a stage decoration may be "low flammability" but show "ignition dripping"; this is not accepted in Austria.

Previously, the period of validity was 4 years (ÖNORM B 3800 Part 2) and could be extended twice by two years each time after expiry (after 8 years, a complete retest had to be carried out).

With the new EN standards, there is no longer a period of validity, but as long as the material is not changed, it may be used on the market.

Only if something is changed in the material or "new" testing and/or classification regulations are implemented, a new test is necessary. For tenders, it is therefore recommended to demand proof by means of a test certificate that is not too old (e.g. not older than five years).

In practice, the approach of "impregnating" (easily) combustible equipment materials with flame retardants and thus making them flame-retardant is found again and again.

If these are professional suppliers or outfitters who process such materials in large quantities and have tested the respective material accordingly, there is no reason why they should not be used. Flame retardants used in this way are certainly effective.

On the other hand, the various agents available on the market for the "do-it-yourself" sector pose a great risk, because the source of error is correspondingly large here.

Furthermore, it is hardly possible to make a general statement about the effect of flame retardants, as a test then always refers only to the one tested material and in practice not all material combinations can be tested.

CONCLUSION:

Our tissue paper with the certificate ÖNORM B 3822 and the A 3800 Part 1 is ideally suited for the highest fire protection requirements in terms of flame-retardant AND dripping/smoking properties.