

# Fire Behavior

## Curtain and Upholstery Fabrics



### Curtain Fabrics

National AT – Ö-Norm A3800 Q1  
International Europe-wide – EN13773  
Especially DE – DIN4102-B1

### Upholstery Fabrics

National AT – Ö-Norm B3825  
(Fire Behavior) and A3800-1  
(Smoke and Fume Behavior)  
International Europe-wide – EN1021  
Especially DE – DIN4102-B1



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# Fire Behavior in General

The test for flame retardancy is generally set up so that test specimens of textiles in a precisely defined size are clamped into a device, and a source of fire (usually a gas flame) is applied to the edge or in the middle of the test specimen. After the sample ignites, the time or distance is measured until the flame extinguishes itself. In addition, droplet formation and smoke intensity are also assessed – no dripping/no fuming – TR1 and Q1.

| ÖNORM | FIRE BEHAVIOR      | EN     |
|-------|--------------------|--------|
| A     | non-combustible    | A1, A2 |
| B1    | flame-retardant    | B, C   |
| B2    | normally flammable | D, E   |
| B3    | easily flammable   | F      |

Classification according to EN DIN 4102 divides fire behavior into different classes:

A – non-combustible / subclasses 1 and 2

B1 – flame-retardant / subclass 1 / group A to C

B2 – normally flammable / subclass 2 / group D to E

B3 – easily flammable / subclass 3 / group F

A fundamental requirement for commercial object business in Austria is compliance with these standards – EN13773 for curtains, A3800 and B3825 for upholstery fabrics. Pictured on the side, you can see an overview of the derivation of the former Austrian standards (ÖNORMEN) into the currently valid European standards!

For curtain fabrics, harmonization of the fire standards between the individual European countries has been achieved – this corresponds to EN13773.

|                                |                        |                                                      |
|--------------------------------|------------------------|------------------------------------------------------|
| ÖNORM B 3820<br>ÖNORM B 3800-1 | Curtains               | EN 13773<br>ÖNORM A 3800-1                           |
| ÖNORM B 3825<br>ÖNORM B 3800-1 | Upholstery<br>Fabrics  | ÖNORM B 3825<br>ÖNORM A 3800-1<br>(EN 1021-1 and -2) |
| ÖNORM B 3822<br>ÖNORM B 3800-1 | Decoration<br>Articles | ÖNORM B 3822<br>ÖNORM B 3800-1                       |

For upholstery fabrics, harmonization of the standards regarding fire, dripping, and fuming behavior has not been successful. Therefore, only A3800 (dripping/fuming) or B3825 (fire test) applies exclusively in Austria.

Upholstery fabrics that do not comply with this standard or have not been tested analogously to this standard may not be used for commercial object business in Austria – as a supplier, you can be prosecuted.

Caution is also advised when subsequently applying an FR (Flame Retardant) finish to both upholstery and decorative fabrics. This is permissible, but only legally covered and safe if a separate test certificate from an accredited testing institute can be presented specifically for this finish. A blanket letter from the finisher stating "Goods are treated with a flame-retardant finish" is definitely not legally compliant and does not relieve the fabric supplier of their duty of care.

We also ask you to consider that every subsequent finishing process represents an additional environmental burden and that these chemicals (especially with curtains and decorative fabrics) disappear after the first cleaning or washing cycles, meaning that fire protection is no longer guaranteed.

At Englisch Dekor, we always strive to ensure flame retardancy from the fiber, i.e., the yarn used. We are talking about a permanent effect that lasts throughout the entire service life of a fabric and does not change even after various care cycles (especially for curtains and decorative fabrics). Especially in the healthcare sector, the use of permanently flame-retardant yarns that also withstand cleaning temperatures of 60 °C is state of the art.

Outside the German-speaking area, there are other standards, such as in:

UK – the British Standard BS5852 Part 0+1 Upholstery and BS5867 Type B+C Curtains

Italy – the Classe Uno 6729

France – M1 NFP 92503

International Maritime – IMO Part 7 Curtains and Part 8 Upholstery

Even if the European standard largely corresponds to these country-specific standards, these countries insist on an additional test in their own testing laboratories – only then will these certificates be accepted.

