

### Why is the SBI test so important?

Most construction products bought and sold in Europe need to be tested and classified using a test method called the Single Burning Item (SBI) EN 13823.

The construction products directive of the European commission require that all European member states use this, instead of the traditional regulatory methods used in each individual country, to classify the vast majority of building products.

The Commission defined the criteria for assessing building products into classes A-F. These are given listed in the table below.

Though other test methods are required, the SBI is needed to classify all non-flooring products into the classes A2, B, C and D which are the major classes inhabited by most products other than those that are principally inorganic classified as non-combustible.

### What is the SBI Test?

The Single Burning Item (SBI), is a testing method used to determine the reaction to fire behaviour of building products (excluding floorings) when exposed to the thermal attack by a single burning item (a sand-box burner supplier with propane).

The test subject is mounted on a trolley that is placed within a frame beneath an exhaust system. The reaction of the subject to the burner is monitored instrumentally and visually. Heat and smoke release rates are measured instrumentally and physical characteristics are assessed by observation.

### How is the SBI used to classify combustion products?

| Class | Criteria for Compliance                                                      | Other Classification                           | Other Test Method(s)       |
|-------|------------------------------------------------------------------------------|------------------------------------------------|----------------------------|
| A2    | $FIGRA \leq 120W/s$ ; and $LFS <$ edge of specimen; and $THR600s \leq 7.5MJ$ | Smoke production<br>Flaming droplets/particles | EN ISO 1182 or EN ISO 1716 |
| B     | $FIGRA \leq 120W/s$ ; and $LFS <$ edge of specimen; and $THR600s \leq 7.5MJ$ | Smoke production<br>Flaming droplets/particles | EN ISO 11925-2             |
| C     | $FIGRA \leq 120W/s$ ; and $LFS <$ edge of specimen; and $THR600s \leq 15MJ$  | Smoke production<br>Flaming droplets/particles | EN ISO 11925-2             |
| D     | $FIGRA < 750W/s$                                                             |                                                | EN ISO 11925-2             |