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## Curtain flammability test

Textiles in the home and public places are exposed to different fire hazards. Cigarettes and matches are the main cause of ignition to bedding and upholstered furniture.

Curtains and drapes are often ignited by flames spread from other sources such as a fire started on an armchair by a discarded cigarette. The British Standard BS 5867 does state that "A fabric complying with the requirements of the present Standard may not always withstand exposure to large sources of heat, but it should have some resistance to flame spread following accidental contact with small sources of ignition."

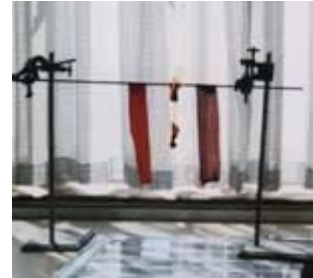
It is important to test all layers of the curtain or drape, as one unsafe fabric can transform a safe structure into a hazardous one. It must be understood that although as in industry you can test on a small scale, these tests do not assess fully the resistance to all ignition sources.

### Testing in industry

A sample of fabric is submitted to any cleaning or wetting procedures as stated on the care label. According to BS 5651 a total of 50 cycles of the laundry procedure is required.

BS5438 is divided into 3 tests. Each one has a vertical held specimen, pinned around its edge, to which a small flame is applied.

- Test 1 is used to see how long the sample takes to ignite.
- Test 2 is used to see which fabrics do not show flame spread beyond the edges of the fabric.
- Test 3 is used to show how fast the flame spreads in fabrics which fail test 2.
- A larger sample is used and timings over distance are calculated.



### Testing in school

Strips of fabric or filling should be securely fastened to a metal rod with a clip, which in turn is fastened securely to a stand. The stand should be placed on a metal tray.

#### **A TEACHER MUST BE WITH YOU !**

A flame is applied to the bottom of each sample for two seconds. The fabric is then observed as it burns to find out:

- How fast the flame travels
- Whether ash is formed or the sample melts into a hard ball
- How long each sample takes to burn
- How much smoke is produced

Your results should be recorded, a conclusion drawn and a decision made regarding the filling and/or material.