

The flame retardant
testing and
performance criteria of
Contract Curtains,
Upholstery, Beds and
Bedding

Panaz Limited 2010

Introduction

All non-domestic premises in England*, Wales* and Scotland** have to comply with the Fire Safety Order. Failure to meet these regulations could lead to prosecution, which could lead to hefty fines or even conviction. The order came in to effect in October 2006 and replaced any previous fire legislation.

This short guide is intended as a quick reference for Interior Designers and Architects to the flame retardant requirements applicable to drapes, upholstery, wall coverings, beds and bedding used in Contract applications or non-domestic dwellings. It should not be used in isolation when assessing risk, but should give a guide to the minimum technical performance required of contract drapery, upholstery, wall coverings, beds and bedding.

*Regulation Reform (Fire Safety) Order 2005

** Fire (Scotland) Act 2005

Source of Data www.opsi.gov.uk and www.communities.gov.uk - July 2006.

Drapes and Curtains

There are no requirements for flame retardant performance for any curtains used in a domestic or private residential environment.

All curtains used in Contract and Public sector properties are subject to flame retardant requirement.

BS5867 Part 2 Type B

Hotels, public buildings such as bars and restaurants including offices are required to meet the Fire Test BS5867 Part 2 Type B.

This test uses a flame application on the face of the fabric for 15 seconds, both warp and weft directions are tested.

A fabric will pass if the flame does not reach the edges of the 23 x 17cm test specimen and so long as there is no separation of flaming debris.

Inherently FR fabrics are tested directly however flame retardant treated fabrics are subjected to durability using washing or dry cleaning (according to fabric manufacturers care instructions)

BS5867 Part 2 Type C

Hospital and Healthcare environments particularly cubicle curtains are obliged to meet BS 5867 Part 2 Type C, this test includes criteria for 50 wash cycles at thermal disinfection temperatures of 75 Degrees Celsius

This test determines a pass using both face and back flame application with multiple flame ignition times of 5s, 15s, 20s and 30 seconds. In addition to the

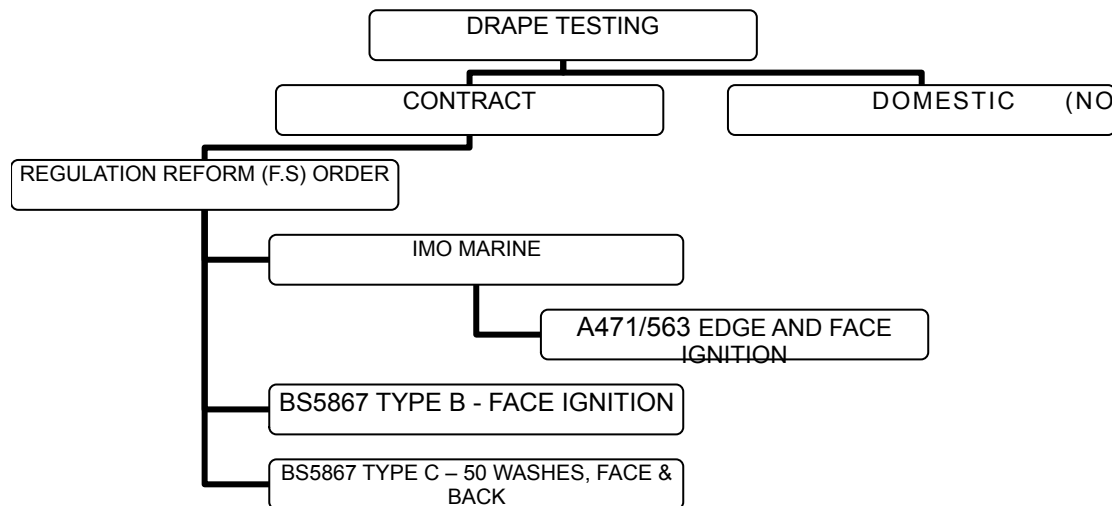
flame spread criteria meaning no flame can reach the edges, to confirm with Type C any resultant after flaming must cease within 2.5 seconds.

Marine - IMO

Fabric testing regulations for the Marine industry is checked using IMO standards the curtain and drape test IMO A471 (xii) /A563 (14) is similar to the BS 5867 however the IMO also includes a flame application to the bottom edge of the fabric which is more severe than the face test.

The flame application time of 5seconds and 15seconds and is applied to both the edge and the face of the specimen commanding that any resultant after flaming must cease within 5seconds.

Drapes and Curtain Test Tree



Upholstery

There are specific regulations for Upholstered Furniture used in Domestic environments. The regulations require a pass BS5852, Part 1 Cigarette and Match. The cigarette test (Ignition Source 0) maybe conducted over any grade of foam. The match test (Ignition Source 1) must be conducted over specific Non FR foam.

Contract environment upholstery should be tested using the same test method BS5852 with increased ignition source 5 and 7 (Crib 5, Crib 7)

BS7176 is often requested for upholstery fabrics – this is a performance standard using test method BS5852

Fabrics may be tested over Non-FR foam (Predictive testing)

Or a pre requested density CMHR (Combustion Modified High Resilience) Foam (Direct testing)

Performance Standard BS7176

Tested to method BS5852 Ignition Source 0 (Cigarette) and Source 1 (Match)
For “Low Hazard” areas (Domestic and some private residential areas)

Performance Standard BS7176

Tested to method BS5852 Ignition Source 0, 1 and Source 5 (Crib 5)

For “Medium Hazard” areas (General Contract: Pubs, Clubs and Hotels)

Performance Standard BS7176

Tested to method BS5852 Ignition Source 0, 1 and Source 7 (Crib 7)

For “High Hazard” areas (Severe Contract: Prisons and some hospital areas)

Marine - IMO A652 (16)

The Marine industry requires testing to IMO test method, resolution A.652 (16) this test uses a 20 second match flame application over Non-FR foam.



BS5852 Crib 5 Test – PASS

Beds and Bedding

There are no domestic requirements for beds except for the fillings used. For Contract there are two standards that may be considered.

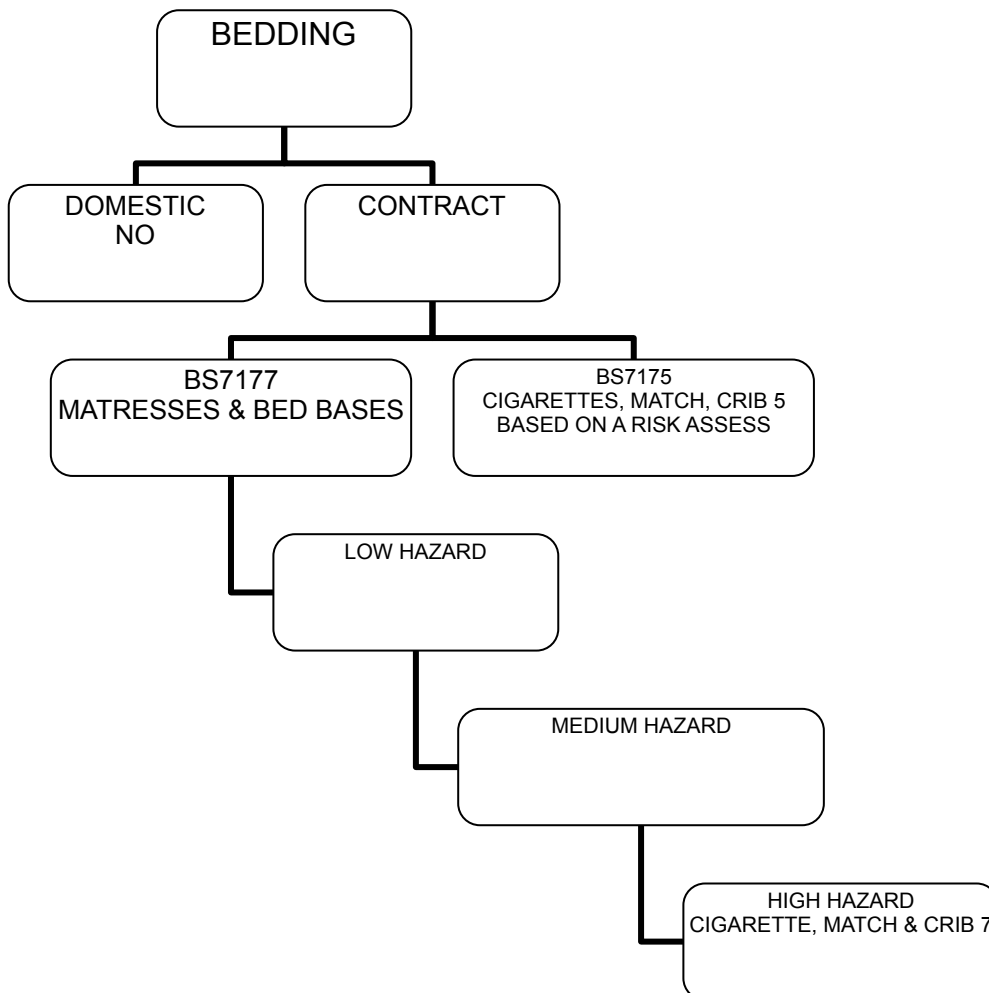
BS7175 - For Bedcovers

This test does not provide any classifications for typical end uses, but does use cigarette, match and crib ignition sources which may be employed to satisfy a level of safety based on the risk assessment.

BS7177 - For mattresses and Bed Bases

Classification standard tested against the following criteria:

- 'Low Hazard' – Ignition Sources 0 (cigarette) and 1 (match)
- 'Medium Hazard' – Ignition Sources 0, 1 and 5 (Crib 5)
- 'High Hazard' – Ignition Sources 0, 1 and 7 (Crib 7)



Should you require any more information please contact admin@panaz.co.uk

