

Specification for resistance to ignition of upholstered furniture for non-domestic seating by testing composites

ICS 97.140

Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee CCM/46, Flammability performance of furniture, upon which the following bodies were represented:

- Association of Consulting Scientists
- Association of Public Analysts
- Baby Products Association
- Bolton Institute of Higher Education
- Branded Furniture Society
- British Apparel Textile Confederation
- British Contract Furnishing Association
- British Furniture Manufacturers' Federation
- British Interior Textiles Association
- British Leather Confederation
- British Plastics Federation
- British Rubber Manufacturers Association Ltd.
- British Textile Technology Group
- Chemical Industries Association
- Chief and Assistant Chief Fire Officers' Association
- Confederation of British Wool Textiles Limited
- Consumer Policy Committee of BSI
- Consumers' Association
- Department of Health
- Department of the Environment (Building Research Establishment)
- Department of Trade and Industry (Consumer Safety Unit, CA Division)
- Federation of the Electronics Industry
- Furniture Industry Research Association
- Home Office
- Institution of Fire Engineers
- Leisure and Outdoor Furniture Association Limited
- Ministry of Defence
- National Bed Federation Limited
- National Fillings Trades Association
- National Wool Textile Export Corporation
- Northern Furniture Manufacturers' Association
- RAPRA Technology Limited
- Textile Finishers' Association
- Wools of New Zealand

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Foreword

This British Standard has been prepared by Technical Committee CCM/46. It is a new edition and supersedes BS 7176:1991, which is withdrawn. This edition introduces technical changes but it does not reflect a full review or revision of the standard, which will be undertaken in due course. The requirements, which relate to upholstered furniture for seating used in different areas of risk, are based on the methods of test given in Section 4 and Section 5 of BS 5852:1990.

The start and finish of text introduced or altered by amendment is indicated in the text by tags **A1** **A1**. Tags indicating changes to text carry the number of the amendment. For example, text altered by amendment no. 1 is indicated by **A1** **A1**.

The Technical Committee responsible for the publication of BS 5852 has recommended that ignitability performance requirements for defined end-use environments be produced by the selection of specific ignition sources related to the level of the fire hazard envisaged for that environment.

It is important to note that the test report in BS 5852 contains the statement that the test results relate only to the ignitability of the combination of materials under the particular conditions of test and are not intended as a means of assessing the full potential fire hazard of the materials in use.

The major changes in this new edition have been made to align this standard with BS EN 1021-1:1994 and BS EN 1021-2:1994, and are as follows:

- a) addition of an annex to cover predictive tests for small orders;
- b) revision of Table 1 for cigarette and match flame equivalent tests;
- c) a reference to the development of additional families of combustion modified (CM) foams;
- d) the redrafting of the hazard warning label to include additional sources of heat.

Although at present there is no legislation directly controlling the ignitability of contract and office furniture, there are statutory and other requirements in use as indicated in the important notes following Table 1.

Separate restrictions on the fire behaviour of materials used in domestic upholstered furniture for seating ordinarily intended for private use in a dwelling are imposed by the Furniture and Furnishing (Fire) (Safety) Regulations 1988 (SI No. 1324) [1], the Furniture and Furnishings (Fire) (Safety) (Amendment) Regulations 1989 (SI No. 2358) [2] and the Furniture and Furnishings (Fire) (Safety) (Amendment) Regulations 1993 (SI No. 207) [3]. However, this situation may alter on publication of the EC Directive relating to the fire behaviour of upholstered furniture, related articles and constituent products.

Attention is also drawn to the labelling requirements of Clause 6.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 11 and a back cover.

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1 Scope

This British Standard specifies requirements for the resistance to ignition of upholstered furniture used for seating when tested in accordance with BS 5852, BS EN 1021-1 or BS EN 1021-2, as appropriate. The levels of ignition resistance have been set after careful consideration of the fire risk of the particular end-use environment involved. These levels do not necessarily reflect the behaviour of the upholstered seating in a fully developed fire.

This standard includes advice on predictive tests for small orders in Annex A. This is included to extend the applicability of the standard to situations involving orders of 200 identical units or less where direct tests would be unduly onerous. The predictive test is not intended to be used as a screening procedure or a prerequisite for furniture or in the selection of covers for orders greater than this limit.

Upholstered seating for domestic use and transport are not covered by this standard.

NOTE Guidance on the applicability of hazard categories to particular premises is given in the Notes to Table 1.

2 References

2.1 Normative references

This British Standard incorporates, by reference, provisions from specific editions of other publications. These normative references are cited at the appropriate points in the text and the publications are listed on the inside back cover. Subsequent amendments to, or revisions of, any of these publications apply to this British Standard only when incorporated in it by updating or revision.

2.2 Informative references

This British Standard refers to other publications that provide information or guidance. Editions of these publications current at the time of issue of this standard are listed on page 11, but reference should be made to the latest editions.

3 Terms and definitions

For the purposes of this British Standard the definitions given in BS 5852 apply, together with the following.

3.1

fire hazard

potential for loss of life (or injury) and/or damage to property, by fire

3.2

fire risk

probability of fire causing loss of life (or injury) and/or damage to property

3.3

ignition risk

the probability that ignition will result if a source of heat is allowed into close proximity or contact with a combustible material

3.4

composite

a realistic model arrangement of the materials used in the finished product

3.5

predictive test

test of a composite of a cover with a standardized filling of known behaviour, or of a filling with a standardized cover of known behaviour, such that the expected behaviour of a composite of the same cover with related fillings, or the same filling with related covers, can be predicted