

Strength and stability of furniture —

Part 5: Requirements for strength, durability and stability of tables and trolleys for domestic and contract use

ICS 97.140

Committees responsible for this British Standard

The preparation of this British Standard was entrusted to Technical Committee FW/2, Domestic and contract furniture, upon which the following bodies were represented:

Association of Building Engineers
 Association of Manufacturers of Domestic Appliances
 Association of Suppliers to the Furniture Industry Ltd.
 British Coatings Federation Ltd.
 British Contract Furnishing Association
 British Furniture Manufacturers' Federation
 British Laminated Plastics Fabricators Association Ltd.
 British Plastics Federation
 British Retail Consortium
 British Shops and Stores Association (BSSA)
 British Woodworking Federation
 Castor Manufacturers' (UK) Association
 Consumer Policy Committee of BSI
 Co-opted Members
 DTI (Consumer Safety Unit)
 European Metal Sink Manufacturers' Association
 Federation of the Electronics Industry
 Flat Glass Manufacturers' Association
 Furniture Industry Research Association (FIRA)
 Glass and Glazing Federation
 ICE Ergonomics
 Kitchen Specialists Association
 Leisure and Outdoor Furniture Association Ltd.
 LHC Building Components and Services
 Mail Order Traders' Association
 National Bed Federation Ltd.
 SATRA Technology Centre
 Society of Glass Technology
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Foreword

This part of BS 4875 has been prepared by Technical Committee FW/2, Domestic and contract furniture. Together with BS EN 1730:2000, it supersedes BS 4875-5:1985 and BS 4875-6:1985, which have been withdrawn.

This revision has been prompted by the publication of BS EN 1730:2000 which now contains the test methods previously included in BS 4875-5 and BS 4875-6. BS 4875-5:2001 consequently cross-refers to the test methods given in BS EN 1730:2000, although it retains a test method for sustained load and horizontal impact and contains an additional drop test (none of which are included in BS EN 1730:2000).

The start and finish of text introduced or altered by Amendment No. 1:2007 is indicated in the text by tags **A1** **A1**. Minor editorial changes are not tagged.

The performance requirements are verified by tests that reproduce normal use and common types of misuse to which tables and trolleys can be subjected. The tests are designed to be applied to an article that is fully assembled and ready for use. Five test levels are given corresponding to the variations in severity of end-use to be expected for various types of seating, e.g. delicate styles, short-life furniture, robust serviceable styles. While the tests reproduce normal use and common types of misuse, they do not reproduce any abuse to which the article may be subjected.

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

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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 part of BS 4875 specifies performance requirements for the strength, durability and stability of the structure of tables and trolleys for domestic and contract use. It does not apply to kitchen furniture, which is covered by [BS EN 14749:2005](#).

NOTE 1 The requirements of this standard are intended to demonstrate the ability of the item to give satisfactory service in its intended environment. Conformity with the standard does not ensure that structural failure will not eventually occur as a result of habitual misuse or after an excessively long period of service.

NOTE 2 Test methods from BS EN 1730 are specified where appropriate.

NOTE 3 The specified tests can be carried out on glass topped tables or trolleys, but the tests do not guard against accidental damage and attention is drawn to the additional requirements for tables and trolleys containing glass which are contained in BS 7376.

NOTE 4 If a table or trolley incorporates storage facilities, reference should also be made to BS 4875-7, BS 4875-8 and [BS EN 14749](#).

2 Normative references

The following normative document contains provisions which, through reference in this text, constitute provisions of this part of this British Standard. For dated references, subsequent amendments to, or revision of, any of these publications do not apply. For undated references, the latest edition of the publication referred to applies.

BS EN 1730:2000, *Domestic furniture — Tables — Test methods for determination of strength durability and stability*.

3 Principle of the performance tests

3.1 General

Conformity with the requirements given in clause 4 for the strength, durability and stability of the structure of an article of furniture is verified by applying loads or forces simulating normal functional use, as well as acceptable misuse, according to a graded scale of severity (see Annex A).

The purpose of the tests is summarized in Table 1. A summary of the tests is given in Table 2.

The test sequence as a whole determines the following:

- static strength and initial damage;
- fatigue strength and damage propagation;
- ability to withstand acceptable misuse, and demonstration of sufficient residual strength.

The severity of loading is graded by varying the number of applications or the magnitude of the forces applied.

Table 1 — Purpose of tests

Name of test	Primary purpose	Secondary purpose	Type of test
Stability: horizontal impact vertical force	Basic strength	Damage initiation	Functional (normal use)
Vertical static			
Horizontal static			
Horizontal fatigue Vertical fatigue Sustained load	Service durability	Damage propagation	
Vertical impact Drop	Handling / Impact strength	Residual strength	Acceptable misuse