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Pohiġtvo - Trdnost, trajnost in varnost - Zahteve za mize za domaļo uporabo

Furniture - Strength, durability and safety - Requirements for domestic tables

Möbel - Festigkeit, Dauerhaltbarkeit und Sicherheit - Anforderungen an Tische im Wohnbereich

Meubles - Résistance, durabilité et sécurité - Exigences relatives aux tables à usage domestique

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Furniture - Strength, durability and safety - Requirements for domestic tables

Meubles - Résistance, durabilité et sécurité - Exigences relatives aux tables à usage domestique

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Contents

Page

Foreword 3

1 Scope 4

2 Normative references 4

3 Terms and definitions 4

4 Test conditions and test sequence 5

5 Safety requirements 5
5.1 General 5
5.2 Shear and squeeze points 5
5.2.1 Shear and squeeze points when setting up and folding 5
5.2.2 Shear and squeeze points under influence of powered mechanisms 5
5.2.3 Shear and squeeze points during use 6
5.3 Stability 6
5.3.1 Stability under vertical load 6
5.3.2 Stability for tables with extension elements 6

6 Stability, strength and durability 6
6.1 General 6
6.2 Strength and durability requirements 8

7 Information for use 8

8 Test report 8

Annex A (informative) Table top deflection test 9

Foreword

This document (EN 12521:2009) has been prepared by Technical Committee CEN/TC 207 “Furniture”, the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by January 2010, and conflicting national standards shall be withdrawn at the latest by January 2010.

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1 Scope

This European standard specifies the minimum requirements for the safety, strength and durability of all types of domestic tables for use by adults, including those with glass in their construction.

It does not apply to office tables or desks, tables for non-domestic use, tables for educational institutions and outdoor tables for which EN standards exist.

It does not apply to tables where the tabletop is not fixed to the understructure, i.e. when applying test 3, Table 2, the top becomes detached from the understructure.

With the exception of stability tests, the standard does not provide assessment of the suitability of any storage features included in domestic tables.

It does not include requirements for the durability of castors and height adjustment mechanisms.

It does not include requirements for electrical safety.

It does not include requirements for the resistance to ageing and degradation.

Annex A contains test methods for the deflection of tabletops.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

EN 12150-1:2000, *Glass in building - Thermally toughened soda lime silicate safety glass - Part 1: Definition and description*

EN 12600:2002, *Glass in building - Pendulum test - Impact test method and classification for flat glass*

EN 14072:2003, *Glass in furniture – Test methods*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
accessible parts
parts to which access can easily be gained by the user when the table is in its intended configuration of use and for which the probability of unintentional user contact is high

3.2
parts accessible during setting up and folding
parts to which access can only be gained when setting up and folding the table

3.3
shear and squeeze point
shear and squeeze points exist if the distance between two accessible parts moving relative to each other is less than 18 mm or more than 7 mm in any position during movement

4 Test conditions and test sequence

The tests shall be carried out in the order in which they are listed in Table 2 of this standard.

The tests conditions shall be as contained in EN 1730 with the exception of the conditioning time (EN 1730:2000, 4.1) which shall be at least 24 h, instead of 1 week.

The test forces may be replaced by masses. The relationship 10 N = 1 kg shall be used.

5 Safety requirements

5.1 General

The table shall be so designed as to minimise the risk of injury to the user.

All parts of the table with which the user comes into contact during intended use shall be so designed that physical injury and damage are avoided.

These requirements are met when:

1) the edges of table tops which are directly in contact with the user shall be rounded or chamfered. All other edges accessible during use shall be free from burrs and/or sharp edges;

2) the ends of hollow components are closed or capped.

Movable and adjustable parts shall be designed so that injuries and inadvertent operation are avoided.

It shall not be possible for any load bearing part of the table to come loose unintentionally.

All parts that are lubricated to assist sliding shall be designed to protect users from lubricant stains when in normal use.

5.2 Shear and squeeze points

5.2.1 Shear and squeeze points when setting up and folding

Unless 5.2.2 or 5.2.3 are applicable, shear and squeeze points, as defined in 3.3, that are created only during setting up and folding, including the installation of extensions to the main table surface are acceptable, because the user can be assumed to be in control of his/her movements and to be able to cease applying the force immediately upon experiencing pain.

The edges of parts moving relative to each other and creating shear and squeeze points shall be as specified in 5.1.

5.2.2 Shear and squeeze points under influence of powered mechanisms

There shall be no shear and squeeze points created by parts of the table operated by powered mechanisms, i.e. springs, gas lifts and motorised systems.

5.2.3 Shear and squeeze points during use

There shall be no shear and squeeze points created by forces applied during normal use, see Table 2.

There shall be no shear and squeeze points if a hazard is created by the user during normal movements and actions, e.g. attempting to move the table.

5.3 Stability

5.3.1 Stability under vertical load

5.3.1.1 General

Tables that can be set to heights both above and below 950 mm shall be tested to both 5.3.1.1.1 and 5.3.1.1.2.

5.3.1.1.1 Test for tables that are or can be set to a height of 950 mm or less

The table shall be set to the height most likely to overturn the table, but not more than 950 mm. The table shall not overturn when tested according to EN 1730:2000, 6.7, using the forces specified within Table 2.

5.3.1.1.2 Test for tables that are or can be set to a height greater than 950 mm

The table shall be set to the height most likely to cause overturning, but not less than 950 mm. The table shall not overturn when tested according to EN 1730:2000, 6.7, using 50 % of the forces specified within Table 2.

5.3.2 Stability for tables with extension elements

Load each extension element with the load specified in Table 1.

For tables with extension elements not fitted with interlocks open all extension elements in the least favourable combination. For tables with extension elements fitted with interlocks open the two extension elements with the largest loads without overriding the interlock. If an interlock device prevents any two of the extension elements from being opened simultaneously, open the extension element with the largest load.

The table shall not overturn when the vertical force specified in Table 2 is applied at the centre of the front of the table, through a loading pad (EN 1730:2000, 5.6), 50 mm from the edge.

Table 1 — Loading of extension elements

Component	Load
Extension elements designed for suspended filing only	1,25 kg/dm
Other extension elements	0,2 kg/dm^3

6 Stability, strength and durability

6.1 General

Tables shall be tested for stability, strength and durability according to Table 2, following the order listed in Table 2.

Table 2 — Stability, strength and durability tests

Test	Reference	Loading	Tables less than or equal to 600 mm in height, or Tables with tops with a surface area less than or equal to 0,25 m^2	All other tables
1. Horizontal static load	EN 1730:2000, 6.2	Test force, N: 10 times	200	400
2. Vertical static load [a]	EN 1730:2000, 6.3	Test force, N		
		a) main surface for tables with a height less than or equal to 600 mm	1 000	-
		b) main surface for tables with a height greater than 600 mm	250	1 000
		c) ancillary surface	-	200
		10 times		
3. Horizontal fatigue	EN 1730:2000, 6.4	Number of cycles:	5 000	10 000
		Test force	150 N	300 N
4. Vertical fatigue for cantilever or pedestal tables	EN 1730:2000, 6.5	Number of cycles: Test force 300 N	-	10 000
5. Vertical impact for tables without glass in their construction	EN 1730:2000, 6.6	Drop height, mm: 10 times	140	180
6. Vertical impact for tables with glass in their construction		Drop height, mm: 10 times		
	EN 1730:2000, 6.6	Safety glass [b]	140	180
	EN 14072:2003, 6 [c]	Other glass	180	240
7. Stability under vertical load [a, d]	EN 1730:2000, 6.7	Test force, N		
		Main surface V_1	200	200
		V_2	400	400
		Ancillary surface V_1	-	100
		V_2	-	200
8. Stability for tables with extension elements [d]	5.3.2	Test force, N	-	200

[a] Tables with extension pieces shall be tested both in the extended and unextended configurations. A table extension added in the centre of the table shall be tested as the main surface. A part of the main surface in the unextended configuration may become an ancillary surface in the extended configuration.

[b] Glass is considered to be safety glass if the glass fulfils the requirements in EN 12150-1:2000, Clause 8, fragmentation test, or where the mode of breakage (β) according to EN 12600:2002, is Type B or Type C.

[c] Impact the table top in accordance with the positions defined within EN 1730:2000, 6.6.

[d] For tables that might not fulfil the stability requirements before carrying out any tests, the applicable stability tests shall be carried out before starting the sequence of tests specified in this table.