SLOVENSKI STANDARD
oSIST prEN 12521:2022

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Pohištvo - Varnost, trdnost in trajnost - Zahteve za mize za domačo uporabo

Furniture - Safety, strength and durability - Requirements for domestic tables

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

Meubles - Sécurité, résistance et durabilité - Exigences relatives aux tables à usage domestique

Ta slovenski standard je istoveten z: **prEN 12521**

ICS:

97.140	Pohištvo	Furniture

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Furniture - Safety, strength and durability - Requirements for domestic tables

Meubles - Sécurité, résistance et durabilité - Exigences relatives aux tables à usage domestique

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

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 207.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (prEN 12521:2022) has been prepared by Technical Committee CEN/TC 207 “Furniture”, the secretariat of which is held by UNI.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 12521:2015.

In comparison with the previous edition, the following modifications have been made:

— updated to reflect the finger entrapment requirements within CEN/TR 17202, including an Annex containing test methods;

— new requirements for delicate tables added;

— improved definition of safety glass;

— durability requirements for height adjustable tables added.

1 Scope

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

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

It does not apply to trestle tables.

With the exception of stability tests, this document 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 (normative) contains test methods for finger entrapment.

Annex B (informative) contains a table top deflection test.

Annex C (informative) contains a rationale.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 1730:2012, *Furniture - Tables - Test methods for the determination of stability, strength and durability*

EN 12150-1:2015+A1:2019, *Glass in building - Thermally toughened soda lime silicate safety glass - Part 1: Definition and description*

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

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
accessible part
part 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, including all parts 500 mm in from the edges users are likely to sit at and 200 mm from all other edges

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

3.3
delicate table
decorative table of light construction intended to be used only for placing light objects, such as telephones, flowers, books, lamps, etc.

3.4
extension element
storage component that can be pulled out and pushed in

EXAMPLES Drawers, suspended pocket files, keyboard trays.

[SOURCE: EN 16122:2012, 3.4, modified — "components" replaced by "storage component"]

3.5
trestle table
product where a top rests on two or more legs without being affixed to them, and where the legs can be placed in any position

3.6
ancillary surface
surface additional to the main surface intended for occasional use as part of the table top

4 Test conditions and test sequence

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

The test conditions shall be as contained in EN 1730:2012, 4.1.

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 minimize 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:

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

b) 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 Holes in tubular/rigid components

There shall be no holes in the ends of tubular components or holes in rigid components in accessible parts between 8 mm and 12 mm, unless the depth of penetration is less than 10 mm. This requirement is fulfilled if there is no hazard present when tested in accordance with A.1.

5.3 Shear and compression points

5.3.1 General

The requirements contained within 5.3.2, 5.3.3 and 5.3.4 do not apply to electrically actuated furniture, which are subject to the requirements of prEN 17684:—[1], 5.4.3.

This clause does not apply to shear and compression points generated by motorised components which are subject to the requirements of prEN 17684:—[1], 5.4.3.

5.3.2 Shear and compression points when setting up and folding

Unless 5.2.2 or 5.2.3 are applicable, shear and compression points that are created only during setting up and folding 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 compression points shall be as specified in 5.1.

5.3.3 Shear and compression points under influence of powered mechanisms

This clause does not apply to shear and compression points generated by motorised components which are subject to the requirements of prEN 17684:—[1], 5.4.3.

With the exception of operation of doors, flaps and extension elements, there shall be no areas where the distance between two accessible parts moving relative to each other can be less than 25 mm, and more than 8 mm in any position during movement that could present a risk of injury to the user, created by parts of the furniture operated by powered mechanisms, e.g. electrical motors, mechanical springs and gas lifts.

This requirement is fulfilled if there is no hazard present when tested in accordance with A.2.1.

5.3.4 Shear and compression points during use

With the exception of operation of doors, flaps and extension elements, there shall be no areas where the distance between two accessible parts moving relative to each other can be less than 18 mm, and more than 8 mm in any position that could present a risk of injury to the user, created by loads applied during normal use.

The loads used for durability tests within Table 2 are considered representative of normal use.

This requirement is fulfilled if there is no hazard present when tested in accordance with A.2.2.

5.4 Glass

5.4.1 Safety glass

For glass to be considered to be ‘safety glass’ when tested in accordance with Table 2, Test 8 – Vertical impact test for glass table tops, either:

a) the manufacturer, importer or retailer, provides verification that the glass fulfils the requirements in EN 12150-1:2015+A1:2019, 8, fragmentation test; or where the mode of breakage (β) according to EN 12600, is Type B or Type C; or

b) the glass shall be tested in accordance with EN 12150-1:2015+A1:2019, 8.3 and 8.4 (fragmentation test) and shall have a minimum particle count of 40 particles in any 50 mm × 50 mm square, in derogation that the test shall be performed on one full size sample of the glass, as used in the product.

[1] Under preparation. Stage at the time of publication: prEN 17684:2022.

5.4.2 Other glass

Where glass does not satisfy the requirements of 6.2.1 it shall be considered to be 'other glass' when tested in accordance with Table 2, Test 6 – Vertical impact test for glass table tops.

5.5 Stability

5.5.1 Delicate tables

The requirements only apply to delicate tables with a height to the top surface ≥ 600 mm above the floor and with a weight of more than 10 kg. *(Drafting note: following basically principle EN 14749)*

The table shall not overturn when tested according to EN 1730:2012, 7.2.2, using the forces specified in Table 2.

5.5.2 All tables except delicate tables

5.5.2.1 General

Tables that can be set to heights both above and below 950 mm shall be tested to both 5.4.2.2 and 5.4.2.3.

5.5.2.2 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 1730:2012, 7.2.2, using the forces specified in Table 2.

5.5.2.3 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 1730:2012, 7.2.3, using 50 % of the forces specified in Table 2.

5.5.3 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 1730:2012, 5.4), 50 mm from the edge.

Table 1 — Loading of extension elements [a]

Component	Load
Extension elements designed for suspended filing only	1,25 kg/dm³
Other extension elements	0,2 kg/dm³
[a] See 3.4.	

5.6 Strength and durability

5.6.1 General

The tests shall be carried out on the same sample and in the order in which they are listed in Table 2. The test conditions shall be as contained in EN 1730:2012, Clause 4.

Table 2 — Stability, strength and durability tests

Test	Reference	Loading	Delicate tables [b]	Tables ≤ 600 mm in height; or Tables with tops with a surface area ≤ 0,25 m² *(Drafting Note: Should this be aligned with EN 15372 (0,3 m²)?)*	All other tables
1. Horizontal static load test	EN 1730:2012, 6.2	Test force $F_{1...4}$, N	150	200	400
		Minimum horizontal force, N	75	100	200
		Specified mass, kg	Manufacturer's maximum load or 25	50	50
		Cycles	10	10	10
2. Vertical static load tests [a]	EN 1730:2012, 6.3	Test force, N			
		a) main surface for tables with a height less than or equal to 600 mm	Manufacturer's maximum load × 1,2 or 250	1 000	-
		b) main surface for tables with a height greater than 600 mm	Manufacturer's maximum load × 1,2 or 250	250	1 000
		c) ancillary surface (3.6)	-	-	200
		Cycles	10	10	10
3. Horizontal durability test	EN 1730:2012, 6.4.1 and 6.4.2	Test force $F_{a..d}$, N	-	150	300
		Specified mass, kg	-	50	50
		Cycles	-	5 000	10 000
		Test force, N	-	300	300

Test	Reference	Loading	Delicate tables [b]	Tables ≤ 600 mm in height; or Tables with tops with a surface area ≤ 0,25 m² *(Drafting Note: Should this be aligned with EN 15372 (0,3 m²)?)*	All other tables
4. Vertical durability test for cantilever or pedestal tables	EN 1730:2012, 6.5	Cycles	-	2000	10 000
5. Vertical impact test for tables without glass in their construction	EN 1730:2012, 6.6.1 and 6.6.3	Drop height, mm Cycles	- -	140 10	180 10
6. Vertical impact test for tables with glass in their construction [c]	EN 1730:2012, 6.6.1 and 6.6.2 EN 14072:2003, Clause 6	Drop height, mm: Safety glass (see 6.2.1) Other glass Cycles	- 100 10	140 180 10	180 240 10
7. Stability under vertical load [a],[d]	EN 1730:2012, 7.1 and 7.2	Test force, N: Main surface V_1 V_2 Ancillary surface V_1 V_2	 200 200 - - 	 200 400 - - 	 200 400 100 200
8. Stability for tables with extension elements [d]	5.3.3	Test force, N	-	-	200