SLOVENSKI STANDARD
oSIST prEN 15372:2021

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Pohištvo - Trdnost, trajnost in varnost - Zahteve za mize za javno uporabo

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

Möbel - Festigkeit, Dauerhaltbarkeit und Sicherheit - Anforderungen an Tische für den Nicht-Wohnbereich

Ameublement - Résistance, durabilité et sécurité - Exigences applicables aux tables à usage non domestique

Ta slovenski standard je istoveten z: prEN 15372

ICS:

97.140	Pohištvo	Furniture

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EUROPEAN STANDARD

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English Version

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

Ameublement - Résistance, durabilité et sécurité - Exigences applicables aux tables à usage non domestique

Möbel - Festigkeit, Dauerhaltbarkeit und Sicherheit - Anforderungen an Tische für den Nicht-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 15372:2021) 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 15372:2016.

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

— Update on the requirements for finger entrapment reflecting CEN/TR 17202:2018 including an Annex containing test methods;

— Improved definition of safety glass;

— Addition of a requirement for the durability of height adjustment mechanisms;

— Addition of recommendations for table top deflection.

1 Scope

This document specifies requirements for the safety, strength and durability of all types of non-domestic tables including those with glass in their construction.

It does not apply to office work tables or desks, tables for educational institutions, laboratory workbenches for educational institutions and outdoor tables for which EN standards exist.

It does not apply to laboratory workbenches for professional use and industrial workbenches.

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

It does not include requirements for electrical safety.

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

This document has three annexes:

— Annex A (normative) Test methods for finger entrapment;
— Annex B (informative) Additional test requirements;
— Annex C (informative) Test severity in relation to application.

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

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:

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

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

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
extension element
components that can be pulled out and pushed in

EXAMPLE Drawers, suspended pocket files, keyboard trays

4 Test conditions

General test conditions shall be in accordance with EN 1730:2012 Clause 4.

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

5 Safety, stability, strength and durability

5.1 General requirements

The table shall be designed so 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 designed so that physical injury and damage are avoided.

This requirement is met when:

a) edges of table tops which are directly in contact with the user are rounded or chamfered,

b) all other edges accessible during intended use are free from burrs and/or sharp edges,

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 which 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 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.

5.4 Shear and compression points

5.4.1 Shear and compression points when setting up and folding

Unless 5.4.2 or 5.4.3 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.

5.4.2 Shear and compression points under influence of powered mechanisms

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.

5.4.3 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.

5.5 Stability

5.5.1 Stability under vertical load

5.5.1.1 General

When assessing the stability of a table, reference shall be made to EN 1730:2012, 7.1.

Tables that can be set to heights both above and below 950 mm shall be tested to both 5.5.1.2 and 5.5.1.3.

5.5.1.2 Test for tables that are or can be set to a height ≤ 950 mm

The table shall be set to the height most likely to cause overturning, 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 within Table 2.

5.5.1.3 Test for tables that are or can be set to a height > 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 within Table 2.

5.5.2 Stability for tables with extension elements

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

The table shall not overturn when tested according to EN 1730:2012, 7.3 using the forces specified within Table 2.

Table 1 — Loads in extension elements

Component	Load
Extension elements designed for suspended filing only	4,0 kg/dm
Other extension elements	0,5 kg/dm³

5.6 Strength and durability

5.6.1 General

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

The guidance for selecting severity 1, 2 or 3 with due respect for the end use of the product is given in Annex C.

Type 1 tables have a main surface 600 mm or more above the floor surface and a surface area greater than 0,3 m². All other tables are considered as Type 2.

Assembly fittings shall be tightened before testing, further tightening shall not take place unless specifically required by the manufacturer's instructions for use.

5.6.2 Glass

5.6.2.1 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:

— the manufacturer, importer or retailer, provides verification that the glass fulfils the requirements in EN 12150-1:2012, Clause 8, fragmentation test; or where the mode of breakage (β) according to EN 12600, is Type B or Type C, or

— the glass has been tested in accordance with EN 12150-1, 8.3 and 8.4 (fragmentation test) with a minimum particle count of 40 particles in any 50 mm x 50 mm square, in derogation that the test has been performed on one full size sample of the glass, as used in the product.

5.6.2.2 Other glass

Where glass does not satisfy the requirements of 5.6.2.1 it shall be considered to be 'other glass' when tested in accordance with Table 2, test 8 – Vertical impact test for glass table tops.

Table 2 — Stability, strength and durability tests

Test	Reference	Loading	Test severity		
			1	2	3
1. Durability of height adjustment mechanisms [a]	EN 1730:2012, Clause 8	Total mass on the table:	Manufacturer's specified load or 25kg whichever is greater.	Manufacturer's specified load or 50kg whichever is greater.	Manufacturer's specified load or 75kg whichever is greater.
		Location of the centre of the loading point and load on table top: A: 40 % of mass at 200 mm from the front and side edges. The remaining mass shall be at the geometric centre of the table top (25 % of the cycles); B: 100 % of the mass at the geometric centre of the table top (50 % of the cycles); C: 40 % of the mass positioned at a rear corner 200 mm from the rear edge and the side edge. The remaining mass shall be at the geometric centre of the table top (25 % of the cycles)			
		Total number of cycles	5000	5000	5000
2. Horizontal static load test	EN 1730:2012, 6.2	Test force F_{1-4}, N:			
		Type 1	400	400	600
		Type 2	200	200	300
		minimum force Type 1 and Type 2	100	100	100

Test	Reference	Loading	Test severity		
			1	2	3
		Specified mass, kg	Manufacturer's specified load or 50 kg	Manufacturer's specified load or 50 kg	Manufacturer's specified load or 50 kg
		Cycles	10 [b]	10 [b]	10 [b]
3. Vertical static load on main surface [c]	EN 1730:2012, 6.3.1	Test force, N	1 000	1 250	1 250
		Cycles	10	10	10
4. Additional vertical static load test where the main surface has a length > 1 600 mm	EN 1730:2012, 6.3.2	Test force, N	-	1 000	1 000
		Cycles	-	10	10
5. Vertical static load on ancillary surface	EN 1730:2012, 6.3.3	Test force, N	200	300	300
		Cycles	10	10	10
6. Horizontal durability test	EN 1730:2012, 6.4.1 and 6.4.2	Test force F_{a-d}, N	300	300	300
		Specified mass, kg	Manufacturer's specified load or 50 kg	Manufacturer's specified load or 50 kg	Manufacturer's specified load or 50 kg
		Cycles:	10 000	15 000	20 000
7. Vertical durability test for cantilever and tables with central column only [d]	EN 1730:2012, 6.5	Test force, N	300	300	300
		Number of cycles:	10 000	15 000	20 000
8. Vertical impact test for glass tabletops	EN 1730:2012, 6.6.1 and 6.6.2 [e]	Drop height, mm:			
		Safety glass – 5.6.2.1	140	180	180
		Other glass – 5.6.2.2	180	240	240
		Cycles	10	10	10
9. Vertical impact test for all other tabletops	EN 1730:2012, 6.6.1 and 6.6.3	Drop height, mm:	140	180	180
		Cycles	10	10	10