

BS EN 15372:2016



BSI Standards Publication

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

**National foreword**

This British Standard is the UK implementation of EN 15372:2016. It supersedes BS EN 15372:2008 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee FW/0/2, Domestic and Contract Furniture.

A list of organizations represented on this committee can be obtained on request to its secretary.

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## 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

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## European foreword

This document (EN 15372:2016) 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of an identical text or by endorsement, at the latest by May 2017, and conflicting national standards shall be withdrawn at the latest by May 2017.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 15372:2008.

The main changes in the document are to reference the revised standard EN 1730:2012.

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## 1 Scope

This European Standard 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 and outdoor tables for which EN standards exist.

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

The standard has two annexes:

Annex A (informative) Additional test requirements.

Annex B (informative) Test severity in relation to application.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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, *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*

## 3 Terms and definitions

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

### 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

### 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

#### **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

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;
- c) ends of hollow components with a diameter greater than 7 mm and less than 12 mm where the accessible depth is greater than 10 mm, 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 which 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 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 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. The loads used for durability tests within Table 2 are considered representative of normal use.

There shall be no shear and squeeze points if a hazard is created by the user during normal movements and actions.

### **5.3 Stability**

#### **5.3.1 Stability under vertical load**

##### **5.3.1.1 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 5.3.1.2 and 5.3.1.3.

### 5.3.1.2 Test for tables that are or can be set to a height $\leq 950$ 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.

### 5.3.1.3 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.

### 5.3.2 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/dm <sup>3</sup>

## 5.4 Strength and durability

### 5.4.1 General

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

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

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

**Table 2 — Stability, strength and durability tests**

Test	Reference	Loading	Test Severity		
			1	2	3
1. 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
		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	10	10



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

Test	Reference	Loading	Test Severity		
			1	2	3
9. Drop test – This test is applicable for tables weighing more than 20 kg only	EN 1730:2012, 6.9	Nominal drop height mm – tables without glass	100	100	100
		Nominal drop height mm – tables with glass	50	50	50
10. Stability under vertical load test	EN 1730:2012, 7.2	Test force, N			
		Main surface V <sub>1</sub>	200	200	200
		V <sub>2</sub>	400	400	400
		Ancillary surface V <sub>1</sub>	100	100	100
		V <sub>2</sub>	200	200	200
11. Stability for tables with extension elements	EN 1730:2012, 7.3	Test force, N	200	200	200

<sup>a</sup> 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 can become an ancillary surface in the extended configuration.

<sup>b</sup> Examples of cantilever tables and tables with a central column are shown in EN 1730:2012 Figures 6b and 6d.

<sup>c</sup> Glass is considered to be safety glass if the glass fulfils the requirements in EN 12150-1:2015, Clause 8, fragmentation test; or where the mode of breakage ( $\beta$ ) according to EN 12600:2002 is Type B or Type C.

#### 5.4.2 Requirements

The requirements are fulfilled when after testing in accordance with Table 2:

- a) there are no fractures of any member, joint or component;
- b) there are no loosening of joints intended to be rigid;
- c) table fulfils its functions;
- d) table fulfils the safety requirements contained in 5.1, 5.2 and 5.3.

### 6 Information for use

Information for use shall be available in the language of the country in which it will be delivered to the end user. It shall contain at least the following details:

- a) information regarding the intended use, see Annex B;
- b) assembly instructions, where applicable;
- c) instructions for the maintenance of the table, if applicable.

## **7 Test report**

The test report shall include at least the following information:

- a) reference to this European Standard;
- b) the piece of furniture tested;
- c) details of defects observed before testing;
- d) any variation from the specified temperature range;
- e) test results;
- f) test severity used;
- g) name and address of the test facility;
- h) date of test.

## Annex A (informative)

### Additional test requirements

#### A.1 General

A number of test methods contained within EN 1730:2012 do not have a requirement associated with them in the main body of this standard.

To offer guidance to persons wishing to use some of these additional test methods the following loads are suggested.

#### A.2 Deflection of table tops test

It is recommended that the deflection of table tops test (EN 1730:2012, 6.7) should be carried out if the deflection of the main surface of the table measured in the vertical static load test (EN 1730:2012, 6.3) exceeds 1/250 of the span for wood based panels, 1/150 of the span for timber products or 1/100 of the span for other materials.

#### A.3 Durability of tables with castors

##### A.3.1 General

The test shall only be carried out on tables fitted with castors in accordance with Table A.1.

**Table A.1 — Durability of tables with castors**

Test	Reference	Loading	Test Severity		
			1	2	3
Durability of table with castors	EN 1730:2012, 6.8	Specified load, N	20	20	20
			2000	2000	2000
		Cycles			

##### A.3.2 Suggested requirements

After the test the table should meet the requirements contained in 5.4.2.

**Annex B**  
(informative)

**Test severity in relation to application**

Table B.1 shows the type of use that might be expected from furniture in relation to the three test severities contained in Table 2.

**Table B.1 — Test severity in relation to application**

<b>Test Severity</b>	<b>Type of Use</b>	<b>Application</b>
1	light	hotel bedrooms, churches, libraries
2	general	general hotel, cafés, restaurants, public halls, banks, bars, meeting rooms
3	severe	night-clubs, police stations, transport terminals, hospital public areas, casinos, homes for the elderly, sports changing rooms, prisons, barracks





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