



SLOVENSKI STANDARD

SIST EN 14749:2016

01-julij-2016

Nadomešča:
SIST EN 14749:2006

Pohištvo - Shranjevalne enote za domačo uporabo in kuhinje ter kuhinjske delovne plošče - Varnostne zahteve in preskusne metode

Furniture - Domestic and kitchen storage units and kitchen-worktops - Safety requirements and test methods

Möbel - Wohn- und Küchen-Behältnismöbel und Küchen-Arbeitsplatten - Sicherheitstechnische Anforderungen und Prüfungen

Meubles - Éléments de rangement et plans de travail - Exigences de sécurité et méthodes d'essai

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ICS:

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97.140	Pohištvo	Furniture

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EUROPEAN STANDARD

EN 14749

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN 14749:2005

English Version

Furniture - Domestic and kitchen storage units and kitchen-worktops - Safety requirements and test methods

Ameublement - Meubles de rangement domestiques et de cuisine et plans de travail de cuisine - Exigences de sécurité et méthodes d'essai

Möbel - Wohn- und Küchenbehältnismöbel und Küchenarbeitsplatten - Sicherheitstechnische Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 21 November 2015.

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

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EN 14749:2016 (E)**European foreword**

This document (EN 14749:2016) 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of an identical text or by endorsement, at the latest by August 2016, and conflicting national standards shall be withdrawn at the latest by February 2017.

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

This document supersedes EN 14749:2005.

Compared to EN 14749:2005 the following modifications have been made:

- a) structure revised;
- b) the most test methods removed and replaced by a reference to EN 16122:2012, *Domestic and non-domestic storage furniture — Test methods for the determination of strength, durability and stability*;
- c) Clause 3 “Terms and definitions” extended;
- d) tests for stability of TV-furniture added;
- e) Annex B (informative) “Guide to testing of units and components” amended;
- f) Annex D (informative) “Relation between safety requirements, total mass and position of centre of gravity of loaded units or loaded components” deleted;
- g) new Annex D (informative) containing a method for calculation of vertical and horizontal acting forces added.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

With this revision the included test methods have been as far as possible taken out of the standard and referenced to:

- EN 16122:2012, *Domestic and non-domestic storage furniture — Test methods for the determination of strength, durability and stability.*

This standard was prepared in order to provide assurance that domestic storage furniture and kitchen-worktops comply with the given requirements and are safe.

The intention of this European Standard is the prevention of serious injury through normal use, as well as foreseeable misuse. It cannot ensure that structural failure will not eventually occur as a result of habitual misuse.

Co-ordinating sizes for kitchen furniture (including kitchen-worktops) kitchen appliances, sinks and decorative panels are covered by EN 1116, *Kitchen furniture — Co-ordinating sizes for kitchen furniture and kitchen appliances.*

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1 Scope

This European Standard specifies safety requirements and test methods for all types of kitchen and bathroom storage units and domestic storage furniture and their components.

It does not apply to non-domestic storage, office storage, industrial storage, catering equipment, retail storage and industrial storage lockers.

It does not apply to units covered by EN 71-1, *Safety of toys — Part 1: Mechanical and physical properties* and EN 60065, *Audio, video and similar electronic apparatus — Safety requirements (IEC 60065)*.

It does not include requirements for the resistance to ageing, degradation, flammability and electrical safety.

Safety that is dependent upon the structure of the building is not included, *e.g.* the strength of wall hanging units includes only the cabinet and its components including wall attachment devices. The wall and the wall attachments are not included.

Annex A (normative) contains additional test methods.

Annex B (informative) contains a guide to testing of units and components according to this document.

Annex C (informative) contains an example of loading of wall hanging units.

Annex D (informative) contains a method for calculation of vertical and horizontal acting forces.

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 71-1:2014, *Safety of toys — Part 1: Mechanical and physical properties*

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

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

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

EN 16122:2012, *Domestic and non-domestic storage furniture - Test methods for the determination of strength, durability and stability*

3 Terms and definitions

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

3.1

unit

piece of storage furniture

3.2

free standing unit

unit not intended to be attached to a load bearing structure

3.3**floor standing unit intended to be attached to the building**

unit intended to be supported by the floor and also attached to a structure

3.4**wall hanging unit**

unit intended to be entirely supported by a vertical structure

Note 1 to entry: A vertical structure can be a wall, panel or screen.

3.5**wall attachment device**

device including the component that is attached to the cabinet and the component that is attached to the wall

Note 1 to entry: A component that is attached to the cabinet is e.g. a suspension bracket.

Note 2 to entry: A component that is attached to the wall is e.g. a hook, a rail.

3.6**kitchen-worktop**

work surface primarily intended to be used for preparing food

3.7**TV-furniture**

unit designed to support a TV-set

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3.8**component**

part of a unit including hardware

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3.9**extension element**

component that can be pulled out and pushed in

Note 1 to entry: An extension element can be a basket, a drawer or a suspended pocket file.

3.10**storage area****storage volume**

space in furniture for storage

Note 1 to entry: A storage area/-volume can be in extension elements and on shelves, bottoms and tops.

3.11**accessible part**

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

Note 1 to entry: This includes, but is not limited to:

- the exposed edges and corners of storage units to which the user has access when the doors, drawers and extension elements are closed,
- the corners and edges of handles.

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3.12

shear and squeeze point

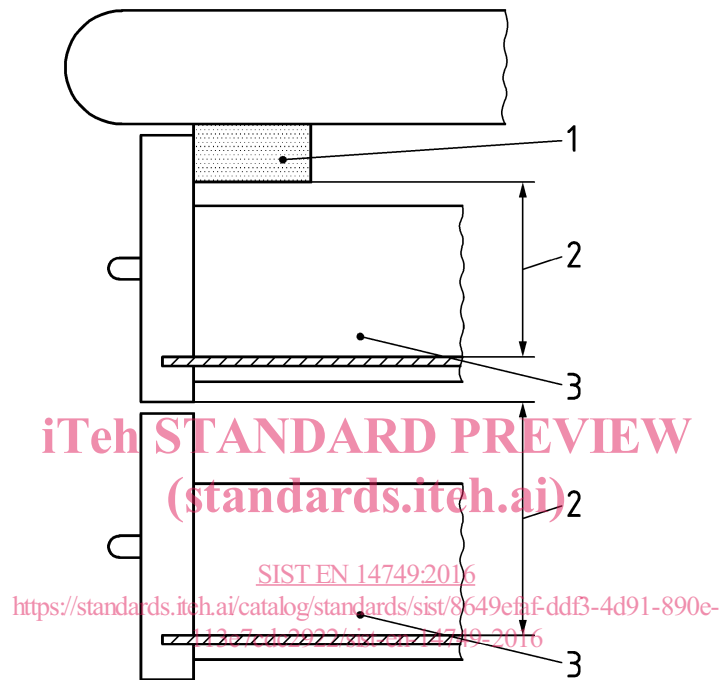
distance between two accessible parts moving relative to each other which can be ≥ 25 mm or ≤ 8 mm in any position during movement

3.13

clear height

unobstructed height above the top of the bottom surface

Note 1 to entry: See Figure 1.

**Key**

- 1 structure of the unit
- 2 clear height
- 3 extension element

Figure 1 — Clear height

[SOURCE: EN 16122:2012, 3.2 modified - ...or the structure of the unit ... has been deleted; another figure has been included]

3.14

levelling device

adjustable device intended to keep the item of furniture perpendicular to the floor

Note 1 to entry: A levelling device can be an adjustable foot or similar.

3.15

potential energy

multiplication of the total mass (kg) of the unit (or the component), gravity (m/s²) and the height (m) above the floor to the centre of gravity

Note 1 to entry: For the purpose of this European Standard gravity can be considered to be 10 m/s².

3.16**overturn**

event at which a furniture unit pivots to a point beyond which the unit continues to fall

4 Test procedure and tolerances**4.1 General**

For all tests referred to in this standard, EN 16122:2012, Clause 4 “General test conditions” and EN 16122:2012, Clause 5 “Test equipment and apparatus” apply.

4.2 Sequence of testing

The tests shall be carried out in the same sequence as the clauses are numbered in this European Standard.

4.3 Tolerances

Unless otherwise stated, the following tolerances are applicable:

- Forces: $\pm 5\%$ of the nominal force;

The forces may be replaced by masses. The relationship $10\text{ N} = 1\text{ kg}$ should be used.

- Velocities: $\pm 5\%$ of the nominal velocity;

- Masses: $\pm 1\%$ of the nominal mass;

- Dimensions: $\pm 1\text{ mm}$ of the nominal dimension;

- Angles: $\pm 2^\circ$ of the nominal angle.

NOTE For the purposes of uncertainty measurement, test results are not considered to be adversely affected when the above tolerances are met.

5 Safety requirements**5.1 Principles of safety requirements****5.1.1 General**

The safety requirements are based upon the knowledge that kitchen units, bathroom units and domestic storage furniture and their components are likely to cause serious injury only when they are heavy and fall through a significant distance. This is possible if floor standing units overturn, wall or screen hanging units become detached, or heavy components become detached from units.

5.1.2 Determination of centre of gravity

The centre of gravity above the floor (for floor standing units) shall be measured when installed according to the manufacturer's instructions.

Levelling devices shall be set at their middle position.

Height adjustable components shall be placed in their highest position.

The centre of gravity of a component or unit shall be taken as the geometric centre of that unit, except in the case of extension elements, where the geometric centre of the usable volume shall be used.

All wall hanging units or top hanging units or components thereof are considered to have their centre of gravity more than 900 mm above the floor.

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5.1.3 Determination of total mass

The total mass is the mass of the component or unit plus the mass determined according to Table 1, unless the unit or component is conspicuously and durably marked by the manufacturer with a maximum load, in which case the unit or component shall be loaded with the stated maximum load multiplied by 1,2. The volume of fixed baskets shall be taken as the volume contained below their top edge.

The volume of extension elements shall be taken as the area of its bottom multiplied by the clear height.

Table 1 — Loads

Component	Load
All horizontal storage areas, including shelves, bottoms, tops and bottom hinged flaps	0,65 kg/dm ²
Extension elements and fixed baskets	0,2 kg/dm ³
Clothes rails	4,0 kg/dm
Suspended filing pockets	2,5 kg/dm ^a
Storage area/-volume (3.10) for heavy appliances (e.g. refrigerator, washing machine) ^b	0,5 kg/dm ^{3 c}
<p>^a Measured perpendicular to the plane of the filing pockets.</p> <p>^b Other heavy objects, e.g. aquariums are not covered by this value.</p> <p>^c Max. load 200 kg per unit.</p>	

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5.2 General safety requirements

5.2.1 General

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The following requirements apply to all units and components.

Components with which the user can come into contact during normal use shall have no burrs and/or sharp edges, nor shall there be any open-ended tubes.

All movable components accessible during normal use shall have safety distances in any position during movement of ≤ 8 mm or ≥ 25 mm. This applies to any components moving relatively to each other, with the exception of doors, flaps and extension elements including their hardware. The safety distances also apply to the distance between handles/handgrips and other components.

5.2.2 Units moving vertically

In order to avoid pinching points for feet, the safety height for units moving vertically shall be at least 100 mm from the floor.

5.2.3 Lids

In order to prevent children's heads and necks from being entrapped by hinged lids of storage units horizontal lids that are 1 000 mm or less from the floor and weigh 0,25 kg or more, shall be provided with lid-support mechanisms to prevent sudden collapse or dropping of the lid.

The lid-support mechanism shall support the lid so that at no position in the arc of travel of the lid from within 50 mm of the fully closed position through an arc not to exceed 60° from the fully closed position shall it drop more than 12 mm under the influence of its own mass, except in the last 50 mm of travel.

The test shall be carried out in accordance with EN 71-1:2014, 8.31.2. In the case of adjustable mechanisms, product information shall be given for the correct adjustment.