

Laboratory furniture - Storage units for laboratories - Requirements and test methods

Laboratory furniture - Storage units for laboratories - Requirements and test methods

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

| | |
|--|---|
| <p>Käesolev Eesti standard EVS-EN 14727:2006 sisaldab Euroopa standardi EN 14727:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 27.02.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p> | <p>This Estonian standard EVS-EN 14727:2006 consists of the English text of the European standard EN 14727:2005.</p> <p>This document is endorsed on 27.02.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p> |
|--|---|

| | |
|---|---|
| <p>Käsitlusala: This European Standard specifies requirements and test methods for storage units (see 3.1) used in laboratories.</p> | <p>Scope: This European Standard specifies requirements and test methods for storage units (see 3.1) used in laboratories.</p> |
|---|---|

ICS 71.040

Võtmesõnad: cupboards, definition, durability, inspection, shelving

ICS 71.040.10

English Version

Laboratory furniture - Storage units for laboratories - Requirements and test methods

Mobilier de laboratoire - Eléments de stockage pour
laboratoires - Exigences et méthodes d'essai

Labormöbel - Schränke und Regale für Laboratorien -
Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 29 August 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

| | |
|---|----------|
| Foreword | 4 |
| 1 Scope | 5 |
| 2 Normative references | 5 |
| 3 Terms and definitions | 5 |
| 4 General test conditions | 6 |
| 4.1 Preliminary preparation | 6 |
| 4.2 Test equipment | 6 |
| 4.3 Tolerances | 7 |
| 4.4 Sequence of testing | 7 |
| 5 Test apparatus | 7 |
| 5.1 Test floor | 7 |
| 5.2 Test wall | 7 |
| 5.3 Stops | 7 |
| 5.4 Loading pad | 7 |
| 5.5 Apparatus for slam open of extension elements | 7 |
| 5.6 Dead loads | 7 |
| 5.7 Glass marbles | 8 |
| 5.8 Impact plate | 8 |
| 6 General safety requirements | 8 |
| 7 Test procedures and requirements | 8 |
| 7.1 Shelves | 8 |
| 7.1.1 Stable positioning of shelves | 8 |
| 7.1.2 Deflection of shelves | 9 |
| 7.2 Shelf supports | 9 |
| 7.3 Pivoted doors | 10 |
| 7.3.1 General | 10 |
| 7.3.2 Strength of pivoted doors | 10 |
| 7.3.4 Durability test on hinged and pivoted doors | 10 |
| 7.3.5 Safety requirements | 11 |
| 7.3.6 Durability requirement | 11 |
| 7.4 Sliding doors and horizontal roll fronts | 11 |
| 7.4.1 General | 11 |
| 7.4.2 Slam open and shut | 11 |
| 7.4.3 Durability test of sliding doors and horizontal roll fronts | 12 |
| 7.4.4 Safety requirements | 12 |
| 7.4.5 Strength and durability requirements | 12 |
| 7.5 Drawers and extension elements | 12 |
| 7.5.1 General | 12 |
| 7.5.2 Slam open test for drawers equipped with open stops | 12 |
| 7.5.3 Strength of drawers and extension elements | 13 |
| 7.5.4 Durability test of drawers and extension element | 13 |
| 7.5.5 Displacement of drawer bottoms | 13 |
| 7.5.6 Safety requirements | 14 |
| 7.5.7 Strength and durability requirements | 14 |
| 7.6 Flaps | 14 |
| 7.6.1 General | 14 |
| 7.6.2 Strength test | 14 |
| 7.6.3 Durability test | 15 |
| 7.6.4 Safety requirements | 15 |
| 7.6.5 Strength and durability requirements | 15 |

| | | |
|---------|---|----|
| 7.7 | Static load on top surfaces of storage units..... | 15 |
| 7.7.1 | Top Surfaces | 15 |
| 7.7.2 | Safety requirements..... | 15 |
| 7.8 | Wall and top mounted units | 15 |
| 7.8.1 | General | 15 |
| 7.8.2 | Tests on movable parts, shelf supports and top surfaces | 16 |
| 7.8.3 | Overload | 16 |
| 7.8.4 | Safety requirements..... | 16 |
| 8 | Stability | 17 |
| 8.1 | Stability with closed drawers and doors | 17 |
| 8.2 | Stability with open drawers, flaps and doors | 17 |
| 9 | Additional safety requirements for underbench cabinets on castors | 17 |
| 9.1 | Retention of drawers on sudden cessation of movement of unit | 17 |
| 9.2 | Stopping device | 17 |
| 9.3 | Safety requirements..... | 17 |
| 10 | Installation instructions..... | 17 |
| 11 | Test report | 18 |
| Annex A | (normative) | 19 |
| A.1 | Slam open test of extension elements | 19 |
| A.1.2 | Apparatus | 19 |
| A.1.3 | Calibration | 19 |
| Annex B | (informative) Example of loading of wall hanging units (see 7.8.3 Overload) | 22 |

Foreword

This European Standard (EN 14727:2005) 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 June 2006, and conflicting national standards shall be withdrawn at the latest by June 2006.

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

1 Scope

This European Standard specifies requirements and test methods for storage units (see 3.1) used in laboratories.

This European Standard specifies strength, durability and safety requirements to prevent serious injury through normal functional use, as well as misuse that might reasonably be expected to occur.

Safety, depending on the structure of the building, is not included e.g. the strength of wall hanging cabinets includes only the cabinet and its parts. The wall and the fixing in the wall are not included.

It should be understood that the tests do not ensure that structural failure will not eventually occur as a result of habitual misuse or after an excessively long period of service.

Assessment of ageing, degradation and the heating effect of appliances are not included nor are ergonomic aspects or resistance to fire.

2 Normative references

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

EN 131-2, *Ladders -Requirements, testing, marking*

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

EN 14749:2005 *Domestic and kitchen storage units and worktops - Safety requirements and test methods*

ISO 7619-2, *Rubber, vulcanized or thermoplastic – Determination of indentation hardness - Part 2: IRHD pocket meter method*

3 Terms and definitions

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

3.1

storage unit

item of furniture consisting of cupboards and/or shelves and/or drawers, intended for the storage of laboratory materials and equipment

3.2

free-standing unit

unit not attached to the structure of the building

3.3

built-in unit

unit attached to the structure of the building, directly or via other units

3.4

wall-mounted unit

unit supported entirely by one or more walls of the building