Non-domestic storage furniture - Requirements for safety, strength, durability and stability

FFSTI STANDARDI FFSSÕNA

NATIONAL FORFWORD

See Eesti standard EVS-EN 16121:2023 sisaldab Euroopa standardi EN 16121:2023 ingliskeelset teksti.

Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.

Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 20.12.2023.

Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.

This Estonian standard EVS-EN 16121:2023 consists of the English text of the European standard EN 16121:2023.

This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.

Date of Availability of the European standard is 20.12.2023.

The standard is available from the Estonian Centre for Standardisation and Accreditation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 97.140

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardimis- ja Akrediteerimiskeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardimis-ja Akrediteerimiskeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardimis-ja Akrediteerimiskeskusega: Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation and Accreditation No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation and Accreditation.

 $If you have any questions about copyright, please contact \ Estonian \ Centre for \ Standard is at ion \ and \ Accreditation:$

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM December 2023

ICS 97.140

Supersedes EN 14073-2:2004, EN 16121:2013+A1:2017

English Version

EN 16121

Non-domestic storage furniture - Requirements for safety, strength, durability and stability

Meubles de rangement à usage collectif - Exigences pour la sécurité, la résistance, la durabilité et la stabilité Behältnismöbel für den Nicht-Wohnbereich -Anforderungen an die Sicherheit, Festigkeit, Dauerhaltbarkeit und Standsicherheit

This European Standard was approved by CEN on 27 November 2023.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Cont	tents	Page
Europ	ean foreword	4
1	Scope	5
2	Normative references	5
3	Terms and definitions	6
4 4.1 4.2 4.3	Test sequence and tolerances	8
5 5.1 5.1.1 5.1.2	Safety requirements Principles of safety requirements General Determination of centre of gravity	8
5.1.3 5.2 5.3	Determination of total mass	9 9 10
5.4 5.4.1 5.4.2 5.4.3	Shear and compression points when setting up and folding	10 10 10
5.5 5.6 5.7 5.8	Hinged horizontal lids Vertical glass components Stability Structural safety	11 13
5.8.1 5.8.2	Structural safety testsStructural safety requirements	
6 6.1 6.2	Strength and durability	15 17
7	Information for use	17
8	Test report	17
Annex	x A (normative) Test methods for finger entrapment and shear and compression	19
A.1	Finger entrapment	19
A.1.1	Test equipment	19
A.1.2	Test method	20
A.2	Shear and compression	23
A.2.1	Test equipment	
A.2.2	Test method - Shear and compression points created under the influence of pmechanisms	
423	Test method — Shear and compression points created during normal use	24

ions .25
.25
.25
.25
.25
.25
.25
.25
.25
.26
26
.26
.26
.27
rage .28
.29
.29 .29
.29 .29

European foreword

This document (EN 16121:2023) 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 2024, and conflicting national standards shall be withdrawn at the latest by June 2024.

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 16121:2013+A1:2017 and EN 14073-2:2004.

In comparison with the previous version EN 16121:2013+A1:2017 of edition EN 16121:2013 and of edition EN 14073-2:2004, 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;
- normative references have been updated;
- requirements for glass have been improved;
- finger entrapment/shear squeeze requirements have been corrected and made applicable to kindergarten only;
- office and laboratory storage have been added to the list of applications;
- the fields of application in relation to the test severity were amended;
- test load added in Annex E.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

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

1 Scope

This document specifies requirements for the safety, strength, and durability for all types of non-domestic storage furniture including office storage furniture.

It does not apply to domestic storage, industrial storage, kitchen, catering equipment, retail storage, and industrial storage lockers.

Requirements for strength and durability do not apply to the structure of the building for example the strength of wall hanging cabinets includes only the cabinets and the parts used for attachment. The wall and the wall attachments are not included.

This document contains five annexes:

- Annex A (normative) Test methods for finger entrapment and shear and compression;
- Annex B (normative) Requirements for schools, kindergartens and similar applications;
- Annex C (normative) Selecting product from a range of furniture;
- Annex D (informative) Guidance of test severity in relation to application for non-domestic storage furniture;
- Annex E (informative) Suggested loads for tests not specified in this document.

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

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 71-1:2014+A1:2018, Safety of toys — Part 1: Mechanical and physical properties

EN 716-2:2017, Furniture — Children's cots and folding cots for domestic use — Part 2: Test methods

EN 12150-1:2015+A1:2019, 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