

BSI Standards Publication

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



BS EN 16121:2023 BRITISH STANDARD

National foreword

This British Standard is the UK implementation of EN 16121:2023. It supersedes BS EN 14073-2:2004 and BS EN 16121:2013+A1:2017, which are withdrawn.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 committee manager.

Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

© The British Standards Institution 2024 Published by BSI Standards Limited 2024

ISBN 978 0 539 16362 9

ICS 97.140

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 January 2024.

Amendments/corrigenda issued since publication

Date Text affected

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 16121

December 2023

ICS 97.140

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

English Version

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	ents	Page
Europe	ean foreword	4
1	Scope	5
2	Normative references	5
3	Terms and definitions	6
4 4.1	Test sequence and tolerances Individual units	8
4.2 4.3	Range of units Tolerances	
5 5.1 5.1.1 5.1.2	Safety requirements Principles of safety requirements General Determination of centre of gravity	8
5.1.2 5.1.3 5.2 5.3	Determination of centre of gravity Determination of total mass General safety requirements Holes in tubular/rigid components	9 9
5.4 5.4.1 5.4.2	Shear and compression points when setting up and folding	10 10
5.4.3 5.5 5.6	Shear and compression points during use	10 11
5.7 5.8 5.8.1 5.8.2	Stability Structural safety tests Structural safety requirements	13 13
5.6.2 6 6.1 6.2	Strength and durability Strength and durability requirements	15 15
7	Information for use	
8	Test report	17
Annex	A (normative) Test methods for finger entrapment and shear and compression	19
A.1	Finger entrapment	
A.1.1	Test equipment	
A.1.2	Test method	
A.2	Shear and compression	
A.2.1 A.2.2	Test equipment Test method - Shear and compression points created under the influence of pmechanisms	powered
A.2.3	Test method — Shear and compression points created during normal use	

Annex	B (normative) Requirements for primary schools, kindergartens and similar app	
B.1	General	
B.2	Requirements	25
B.2.1	Shear and compression points	25
B.2.2	Principles of safety requirements	25
B.2.3	General safety requirements	25
B.2.4	Glass	25
B.2.5	Stability	25
B.2.6	Strength and durability - drop test for trays	25
B.3	Additional requirements for furniture for kindergartens	26
B.3.1	Finger entrapment	26
B.3.2	Shear and compression points under the influence of powered mechanisms	26
B.3.3	Shear and compression points during use	26
Annex	c C (normative) Selecting product from a range of furniture - Range of units	27
Annex	D (informative) Guidance of test severity in relation to application for non-domestic furniture	
Annex	E (informative) Suggested loads for tests not specified in this document	29
E.1	Suggested loads	29
E.1.1	General	29
E.1.2	Stability	29
E.1.3	Strength and durability	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