

English Version

Hardware for furniture - Strength and durability of  
extension elements and their components

Quincaillerie d'ameublement - Résistance mécanique et  
endurance des éléments extractibles et de leurs  
composants

Möbelbeschläge - Festigkeit und Dauerhaltbarkeit von  
Auszügen und deren Komponenten

This draft European Standard is submitted to CEN members for formal vote. It has been drawn up by the Technical Committee CEN/TC 207.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

**Warning :** This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

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

<b>Contents</b>	<b>Page</b>
European foreword.....	4
Introduction .....	5
1 Scope .....	6
2 Normative references .....	6
3 Terms and definitions .....	6
4 General test conditions .....	7
4.1 Preliminary preparation .....	7
4.2 Test equipment .....	7
4.3 Application of forces .....	8
4.4 Tolerances .....	8
4.5 Sequence of testing .....	8
4.6 Inspection and assessment of results .....	8
5 Test apparatus.....	8
5.1 Loading pad .....	8
5.2 Apparatus for slam-shut/open tests .....	9
5.3 Masses .....	9
5.4 Glass marbles.....	9
5.5 Loads for filing pockets .....	9
5.6 Test frame and test drawer .....	10
5.7 Particle board properties.....	11
5.8 Wood component .....	11
6 Test procedures and requirements.....	12
6.1 General.....	12
6.2 Overload tests.....	12
6.2.1 General.....	12
6.2.2 Vertical downwards static overload .....	12
6.2.3 Horizontal sideways static overload .....	12
6.2.4 Outwards static overload .....	13
6.2.5 Slam-shut/open .....	13
6.3 Functional tests.....	14
6.3.1 General.....	14
6.3.2 Deflection of extension element bottoms.....	14
6.3.3 Deformation of front and back .....	14
6.3.4 Operating forces .....	15
6.3.5 First vertical downwards static load test .....	15
6.3.6 First horizontal sideways static load .....	16
6.3.7 Determination of reference point for the deflection of front.....	16
6.3.8 Durability .....	17
6.3.9 Deflection of front.....	17
6.3.10 Second vertical downwards static load.....	17
6.3.11 Second horizontal sideways static load .....	18
6.3.12 Operating forces .....	18
6.3.13 Slam-shut/open .....	18
6.4 Corrosion resistance .....	18

6.5    Test report ..... 18

Annex A (normative) Product information system ..... 20

Annex B (normative) Test-method: Slam-shut/open of extension elements ..... 21

Annex C (normative) Test parameters..... 24

## **European foreword**

This document (FprEN 15338:2024) has been prepared by Technical Committee CEN/TC 207 “Furniture”, the secretariat of which is held by UNI.

This document is currently submitted to the CEN Formal Vote.

This document will supersede EN 15338:2007+A1:2010.

FprEN 15338:2024 includes the following significant technical changes with respect to EN 15338:2007+A1:2010:

- updating of normative references;
- revision of 6.4 “Corrosion resistance”;
- deletion of A.6 “Corrosion test”.

## **Introduction**

The aim of this document is to provide furniture manufacturers, designers and developers with comparable information regarding the performance of extension elements and drawers.

## 1 Scope

This document specifies test methods and requirements for the strength and durability of all types of extension elements and their components for all fields of application, except table extensions.

The tests consist of the application of loads, forces and velocities simulating normal functional use, as well as misuse, that can reasonably be expected to occur.

With the exception of the corrosion test in 6.4, the tests are designed to evaluate properties without regard to materials, design/construction or manufacturing processes.

The strength and durability tests only relate to the extension elements and the parts used for the attachment, e.g. screws.

The strength and durability tests are carried out in a test frame with specified properties. The test results are only used as a guide to the performance of a piece of furniture.

The test results are only valid for the extension element tested.

Ageing and influences of heat and humidity are not included.

## 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 320, *Particleboards and fibreboards - Determination of resistance to axial withdrawal of screws*

EN 323, *Wood-based panels - Determination of density*

EN 17737, *Hardware for furniture - Test and evaluation methods for the corrosion resistance of furniture fittings*

EN ISO 6270-2, *Paints and varnishes - Determination of resistance to humidity - Part 2: Condensation (in-cabinet exposure with heated water reservoir) (ISO 6270-2)*

EN ISO 10289, *Methods for corrosion testing of metallic and other inorganic coatings on metallic substrates - Rating of test specimens and manufactured articles subjected to corrosion tests (ISO 10289)*

## 3 Terms and definitions

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

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

**3.1**  
**catch device**  
device which keeps or pulls an extension element in place, but does not require a second action in order to release it

EXAMPLE      A magnetic catch or a self-closing or self-opening mechanism.