

SVENSK STANDARD

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Furniture – Strength, durability and safety – Requirements for non-domestic seating

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The European Standard EN 16139:2013 has the status of a Swedish Standard. This document contains the official version of EN 16139:2013.

**Denna korrigerade version innehåller följande rättelse/
This corrected version contains the following correction**

The Foreword is completed with:

"This document supersedes EN 15373:2007 and EN 13761:2002."

The English title page is completed with superseding information.

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EUROPEAN STANDARD

EN 16139

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2013

ICS 97.140

Supersedes EN 13761:2002, EN 15373:2007

English Version

Furniture - Strength, durability and safety - Requirements for non-domestic seating

Mobilier - Résistance, durabilité et sécurité - Exigences applicables aux sièges à usage collectif

Möbel - Festigkeit, Dauerhaltbarkeit und Sicherheit - Anforderungen an Sitzmöbel für den Nicht-Wohnbereich

This European Standard was approved by CEN on 12 January 2013.

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

Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN 16139:2013) 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of an identical text or by endorsement, at the latest by September 2013, and conflicting national standards shall be withdrawn at the latest by September 2013.

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.

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Introduction

This European Standard has been developed as a merging project out of the following European Standards:

- EN 15373:2007, *Furniture – Strength, durability and safety – Requirements for non-domestic seating*
- EN 13761:2002, *Office furniture – Visitors chairs*

All requirements in EN 16139 are taken from these two standards, where the new test level 2 reflects test level 3 of EN 15373 and the new test level 1 reflects test level 2 of EN 15373 and the former EN 13761.

The correspondent test method standard for this document, EN 1728, was also under revision in the same time period. In order to avoid a further revision of EN 16139 for the alignment with EN 1728, this project was slowed down until the final draft of EN 1728 was available.

1 Scope

This European Standard specifies requirements for the safety, strength and durability of all types of non-domestic seating intended to be used by adults with a weight of not more than 110 kg, including office visitor chairs.

This European Standard does not apply to ranked seating, office work chairs, chairs for educational institutions, outdoor seating and to links for linked seating for which European Standards or drafts exist. It does also not apply to work chairs for industrial use.

This European Standard does not include requirements for the durability of upholstery materials, castors, reclining and tilting mechanisms and seat height adjustment mechanisms.

This European Standard does not include requirements for the resistance to ageing, degradation and flammability.

Annex A contains additional tests.

Annex B contains information on the level of test severity in relation to applications.

Annex C contains dimensional requirements for office visitor chairs.

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 1022, *Domestic furniture – Seating – Determination of stability*

EN 1335-2:2009, *Office furniture – Office work chair – Part 2: Safety requirements*

EN 1335-3:2009, *Office furniture – Office work chair – Part 3: Test methods*

EN 1728:2012, *Furniture – Seating – Test methods for the determination of strength and durability*

3 Terms and definitions

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

3.1

accessible part

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

3.2

part accessible during setting up and folding

part to which access can only be gained when setting up and folding the furniture

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3.3
shear and squeeze points
shear and squeeze points exist if the distance between two accessible parts moving relatively to each other is less than 25 mm and more than 8 mm for adults and children older than 3 years in any position during movement

3.4
castors
castors assembly comprising a housing, one or more wheels, an axle and, if required, accessories

3.5
leg rest
extension of the seat area intended to support the legs of the sitter

Note 1 to entry: A leg rest may or may not be permanently attached to the seat.

3.6
foot rail
component intended as an occasional support for the feet or to assist getting on and off a high chair or stool

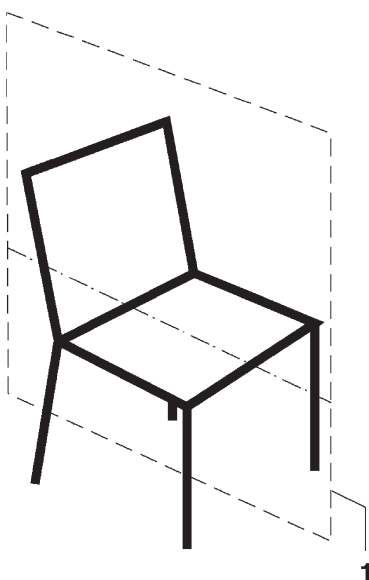
Note 1 to entry: A foot rail may be a part of the structure of the underframe of a chair or stool.

3.7
visitor chair
seating for one person used in the office environment additional to the office work chair

Note 1 to entry: It is used for meetings or consultations as well as for reading, writing, listening and waiting.

3.8
median plane
vertical plane passing through the geometric centre of the seat, dividing the seat from side to side into two equal parts

Note 1 to entry: See Figure 1.



Key
1 median plane

Figure 1 — Median plane

4 Safety

4.1 General

The seating shall be so designed as to minimise the risk of injury to the user.

All accessible parts (3.1) shall be so designed that physical injury and damage are avoided.

This requirement is met when:

- a) accessible corners are rounded or chamfered;
- b) the edges of the seat, back rest and arm rests which are in contact with the user when sitting in the chair are rounded or chamfered;
- c) the edges of handles are rounded or chamfered in the direction of the force applied;
- d) all other edges are free from burrs and rounded or chamfered;
- e) the ends of hollow components are closed or capped.

Movable and adjustable parts shall be designed so that injuries and inadvertent operation are avoided.

It shall not be possible for any load bearing part of the seating to come loose unintentionally.

All parts which are lubricated to assist sliding shall be designed to protect users from lubricant stains when in normal use.

4.2 Shear and squeeze points

4.2.1 Shear and squeeze points when setting up and folding

Unless 4.2.2 or 4.2.3 are applicable, shear and squeeze points that are created only during setting up and folding, including tipping seat actions, are acceptable, because the user can be assumed to be in control of his/her movements and to be able to cease applying the force immediately upon experiencing pain.

The edges of parts moving relative to each other and creating shear and squeeze points shall be as specified in 4.1.

4.2.2 Shear and squeeze points under influence of powered mechanism

With the exception of tipping seats there shall be no shear and squeeze points created by parts of the seating operated by powered mechanisms, e.g. springs and gas lifts.

4.2.3 Shear and squeeze points during use

There shall be no shear and squeeze points created by forces applied during normal use as well as during normal movements and actions, see Table 1.

4.3 Stability

4.3.1 General

The seating shall not overturn under the following conditions:

- a) by pressing down on the front edge of the seat surface in the median plane (3.8);