



SLOVENSKI STANDARD
oSIST prEN 1022:2015
01-december-2015

Pohištvo - Sedežno pohištvo - Ugotavljanje stabilnosti

Furniture - Seating - Determination of stability

Möbel - Sitzmöbel - Bestimmung der Standsicherheit

Mobilier domestique - Sièges - Détermination de la stabilité

Ta slovenski standard je istoveten z: prEN 1022

ICS:

97.140 Pohištvo Furniture
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EUROPEAN STANDARD
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October 2015

ICS 97.140

Will supersede EN 1022:2005

English Version

Furniture - Seating - Determination of stability

Mobilier domestique - Sièges - Détermination de la stabilité

Möbel - Sitzmöbel - Bestimmung der Standsicherheit

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

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

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prEN 1022:2015 (E)

European foreword

This document (prEN 1022:2015) 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 Enquiry.

This document will supersede EN 1022:2005.

The main changes with respect to the previous edition are listed below.

- All test methods for seating used in European Standards for furniture have been collated in one document. The document now contains methods that were previously listed in EN 581-2, Outdoor furniture and EN 1335-3, Office work chair.
- The calculative method of determining stability has been removed.
- Wherever possible test methods have been simplified and clarified for ease of use.

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1 Scope

This European Standard specifies test methods and requirements for the determination of the stability of all types of seating for adults weighing up to 110 kg, without regard to use, materials, design/construction or manufacturing process.

The test methods described can be used for seating for children and heavier adults by modifying test loads and loading points.

This European Standard does not apply to children's highchairs, table mounted chairs and bath seats that are covered by other European Standards.

2 Terms and definitions

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

2.1

stability

ability to withstand forces that tend to cause the loaded seating to overturn

2.2

load bearing structure

load bearing parts of furniture such as the frame, seat, back and arm supports and suspension

2.3

leg rest

extension of the seat area intended to support the legs of the user

Note 1 to entry: A leg rest can or cannot be permanently attached to the structure of the item of seating.

2.4

footrest

part intended to support the feet of the user which assists the user getting on or off an item of seating

Note 1 to entry: A foot rest can or cannot be permanently attached to the structure of the item of seating.

2.5

backrest

element that supports the back of the user higher than 100 mm above the seat loading point

2.6

armrest

part of the seating able to support the arms of the user when seated, higher than 100 mm above the seat loading point

2.7

work chair

chair, with or without arm rests, for use by one adult in the office or home office (for example working with a computer), whose upper part, which includes the seat and back, is supported on a single column and can rotate in the horizontal plane and is at least adjustable in height

2.8

supporting point

foot of a leg, castor or glide

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**2.9
lounger**
item of seating intended for reclined posture with at least one backrest position such that backrest angle is 45 degrees or less to the horizontal, and a leg rest which is an integral part of the product and intended to support the full body weight of a user

3 General test conditions**3.1 General**

The furniture shall be tested as delivered. Knock-down furniture shall be assembled according to the instructions supplied with it. If the furniture can be assembled or combined in different ways, the most adverse configuration shall be used for each test. Knock-down fittings shall be tightened before testing.

The tests shall be carried out in the configuration most likely to cause overturning.

The test results are only valid for the tested seating. When the test results are intended to be applied to production models, the tested seating shall be representative of the production model.

Unless otherwise specified by the manufacturer, the sample for test shall be stored in indoor ambient conditions for at least 24 h immediately prior to testing.

The tests shall be carried out at indoor ambient conditions but if during a test the temperature is outside the range 15 °C to 25 °C the maximum and/or minimum temperature shall be recorded in the test report.

3.2 Tolerances

Unless otherwise stated:

- all forces shall have an accuracy of $\pm 5\%$ of the nominal force;
- all masses an accuracy of $\pm 0,5\%$ of the nominal mass;
- all dimensions an accuracy of ± 1 mm of the nominal dimension;
- all angles an accuracy of $\pm 2^\circ$ the nominal angle.

The tolerance for positioning of loading pads shall be ± 5 mm.

The tests are described in terms of the application of forces. Masses can however be used. The relationship $10\text{ N} = 1\text{ kg}$ may be used for this purpose.

NOTE For the purposes of uncertainty measurement, test results are not considered to be adversely affected when the above tolerances are met.

4 Test equipment**4.1 General**

The equipment shall not inhibit deformation nor cause unnatural deformation of the unit/component, i.e. it shall be able to move so that it can follow the deformation of the unit/component during testing.

All loading pads shall be capable of pivoting in relation to the direction of the applied force. The pivot point shall be as close as practically possible to the load surface.

If a loading pad tends to slide use a slip resistant material between the loading device.

The tests may be applied by any suitable device because results are dependent only upon correctly applied forces and not upon the apparatus.

4.2 Loading position template

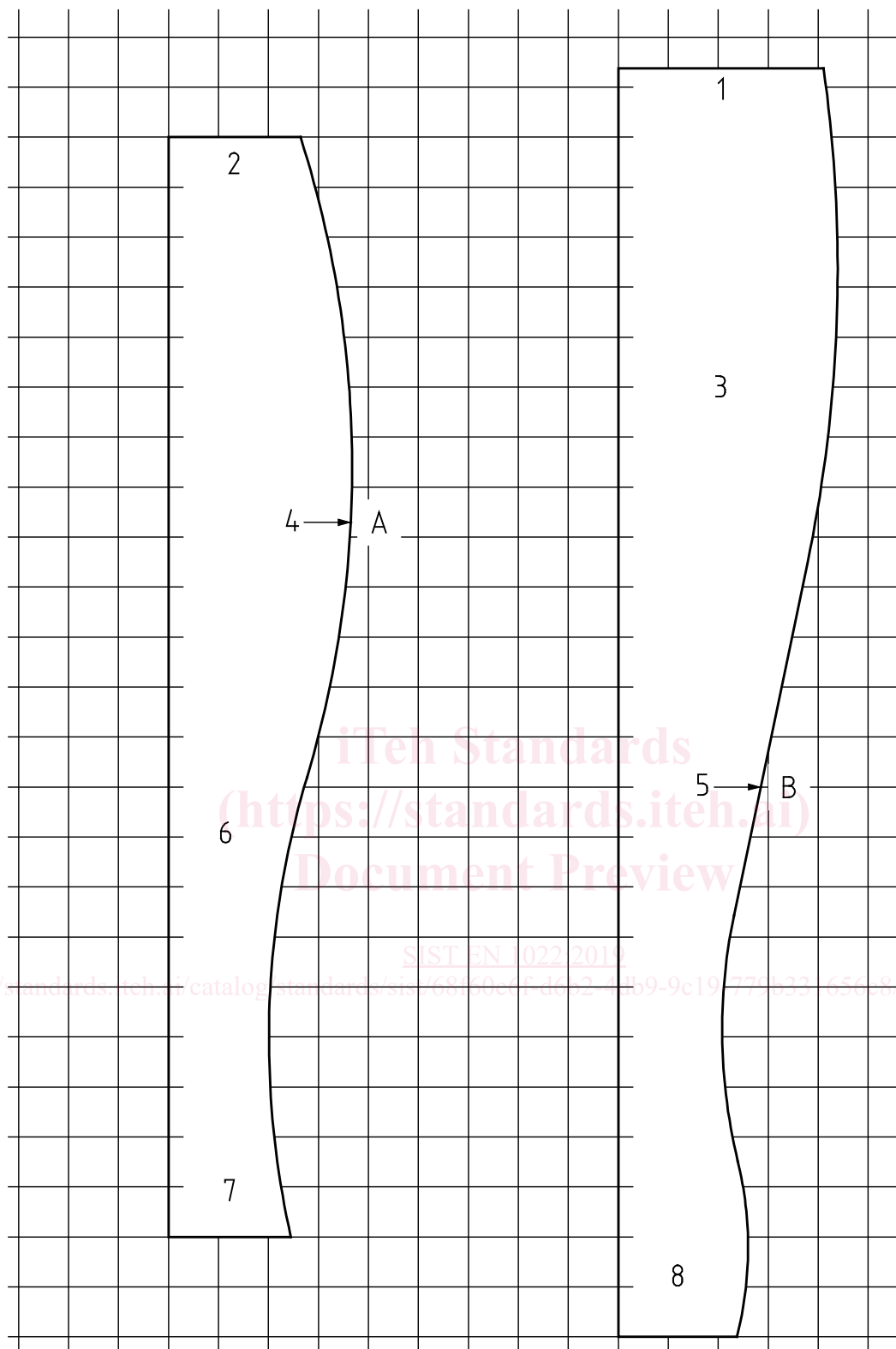
Consisting of two shaped members (see Figure 1) fastened together by a pivot at one end. The contours of the shaped surfaces are so devised as to sink into the upholstery. For this purpose the loading position template, with an additional mass applied at the seat loading point, shall be 20 kg +1 kg, - 0 kg.

The apparatus is marked as shown in Figure 2.

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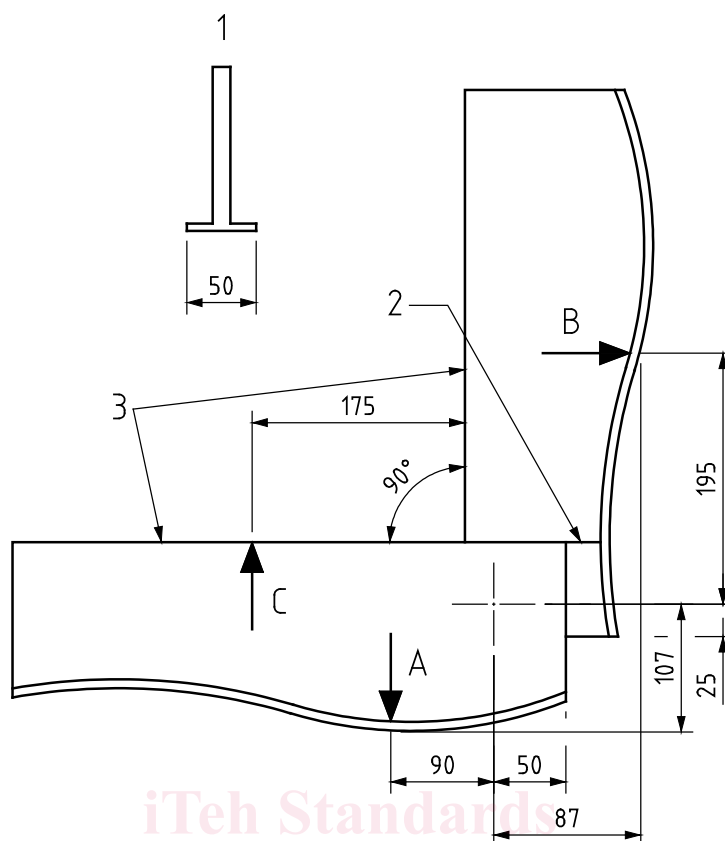
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**Key**

1	top	2	rear	3	back portion
4	seat load	5	back load	6	seat portion
7	front	8	bottom	Scale: 1 square = 20 mm	

Figure 1 — Loading surface curves for seat and back loading point template

Dimensions in millimetres

**Key**

- 1 typical section
- 2 mark to fix 90°
- 3 straight edge for the determination of seat or back inclination
- A seat loading point (chairs)
- B back loading point (chairs)
- C seat loading point (stools)

Figure 2 — Loading point template

So that the template can be positioned easily with the two members at 90° to each other, a line is drawn on the back portion.

4.3 Floor

Horizontal, flat and rigid with a smooth surface.

4.4 Stops

Unless otherwise stated, stops shall be of the minimum height required to prevent sliding and shall not inhibit overturning.

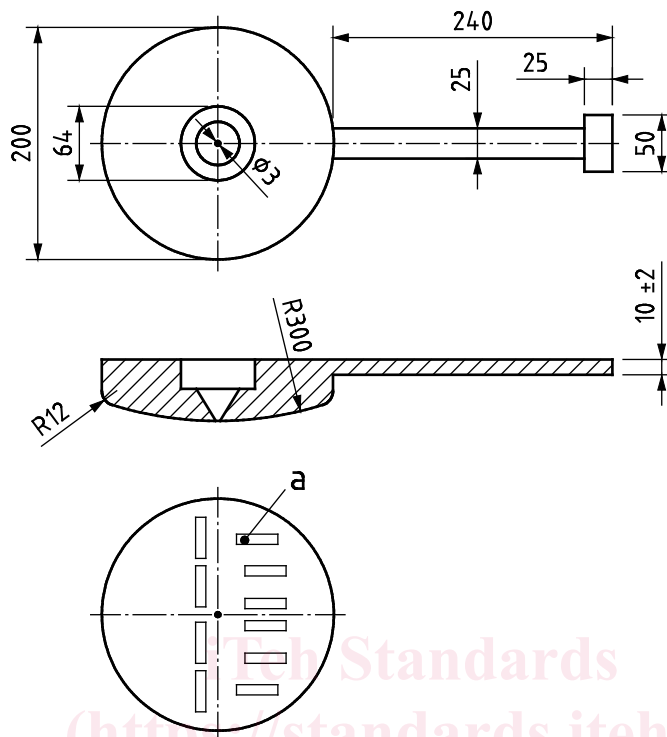
4.5 Strap

A 50 mm ± 10 mm wide strap capable of supporting a mass as specified in 6.2.

4.6 Stability loading pad

A loading pad as shown in Figure 3. The circular pad may be made of any suitable material (e.g. resin of wood). The extension piece shall be made of aluminium.

Dimensions in millimetres



Key

- a grip material on a 300 mm R surface, recessed into a groove so that only the gripper teeth protrude. The carpet gripper placement shown is one example, other configurations are acceptable

Figure 3 — Stability loading pad