

SLOVENSKI STANDARD

oSIST prEN 17191:2018

01-januar-2018

Otroško pohištvo - Sedežno pohištvo za otroke - Varnostne zahteve in preskusne metode

Children's Furniture - Seating for children - Safety requirements and test methods

Kindermöbel - Sitzmöbel für Kinder - Anforderungen und Prüfverfahren

Mobilier de puériculture et pour enfants - Sièges pour enfants - Exigences de sécurité et méthodes d'essai

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ICS:

97.140	Pohištvo	Furniture
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EUROPEAN STANDARD
NORME EUROPÉENNE
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Children's Furniture - Seating for children - Safety requirements and test methods

Mobilier de puériculture et pour enfants - Sièges pour enfants - Exigences de sécurité et méthodes d'essai

Kindermöbel - Kindersitzmöbel - Sicherheitstechnische Anforderungen und Prüfverfahren

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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European foreword

This document (prEN 17191:2017) 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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of M/527.

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1 Scope

This European Standard specifies safety requirements and test methods for seating for children who are able to walk and sit by themselves.

It applies to seating intended to be placed on the floor for all fields of application with the exception of the use in educational institutions.

This European Standard applies to the seating function only. If the furniture has additional functions or can be converted into other products, the relevant European Standards may apply.

It does not apply to children's high chairs and reclined cradles for which other European Standards exist.

It does not apply to wheel chairs, electrical powered chairs and seating for children with special needs.

Annex A (informative) contains dimensions on seating.

Annex B (informative) contains a rationale.

Annex C (informative) contains an overview of different requirements in this Standard and their application in accordance with the sizes of seating.

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, *Safety of toys - Part 1: Mechanical and physical properties*

EN 71-2:2011¹, *Safety of toys - Part 2: Flammability*
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EN 71-3, *Safety of toys - Part 3: Migration of certain elements*

EN 1022:2005, *Domestic furniture - Seating - Determination of stability*

EN 1728:2012², *Furniture - Seating - Test methods for the determination of strength and durability*

EN ISO 13936-2, *Textiles - Determination of the slippage resistance of yarns at a seam in woven fabrics - Part 2: Fixed load method (ISO 13936-2)*

¹ As impacted by EN 71-2:2011+A1:2014

² As impacted by EN 1728:2012/AC:2013

3 Terms and definitions

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

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

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

3.1

automatic locking device

mechanism which engages without the guidance of the user and which prevents unintentional movement

3.2

surface flash

rapid spread of flame over the surface of a material without ignition of its base structure at the same time

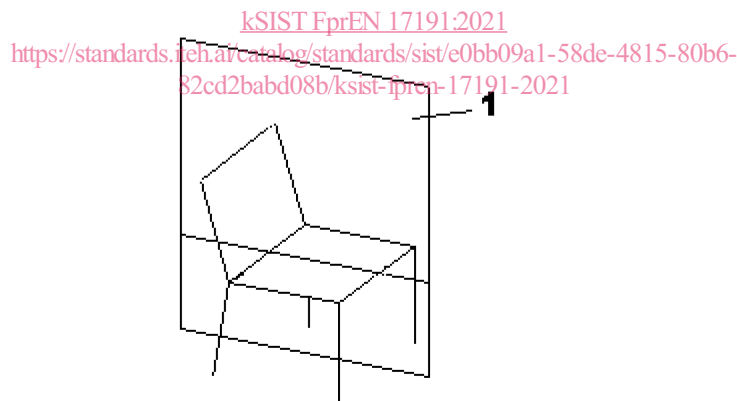
3.3

median plane

vertical plane running from front to rear through the centre of the seat, dividing the chair into two equal parts

Note 1 to entry: See Figure 1.

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Key

1 Median plane

Figure 1 — Median plane

4 General requirement and test condition

4.1 Preliminary preparation

The furniture shall be tested as delivered. The furniture shall be assembled and/or configured according to the instructions supplied with it. Unless otherwise stated the most adverse configuration shall be used for each test. If mounting or assembly instructions are not supplied, the mounting or assembly method shall be recorded in the test report. Fittings shall be tightened before testing and shall not be re-tightened unless specifically required in the manufacturer's instructions. If the configuration must be changed to produce the worst-case conditions, this shall be recorded in the test report.

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 in indoor ambient conditions at a temperature between 15 °C and 25 °C. If during a test the temperature is outside of the range of 15 °C to 25 °C, the maximum and/or minimum temperature shall be recorded in the test report.

Before beginning the testing, visually inspect the unit thoroughly. Record any defects so that they are not assumed to have been caused by the tests.

4.2 Application of forces

The test forces in durability and static load tests shall be applied sufficiently slowly to ensure that negligible dynamic load is applied. The forces in durability tests shall be applied sufficiently slowly to ensure that kinetic heating does not occur.

Unless otherwise stated, static forces shall be maintained for (10 ± 2) s. Unless otherwise stated, durability forces shall be maintained for (2 ± 1) s.

The forces may be replaced by masses. The relationship $10\text{ N} = 1\text{ kg}$ shall be used.

4.3 Tolerances

Unless otherwise stated, the following tolerances are applicable to the test equipment:

- Forces: $\pm 5\%$ of the nominal force;
- Velocities: $\pm 5\%$ of the nominal velocity;
- Masses: $\pm 1\%$ of the nominal mass;
- Dimensions: $\pm 1\text{ mm}$ of the nominal dimension;
- Angles: $\pm 2^\circ$ of the nominal angle.

The accuracy for the positioning of loading pads and impact plates shall be 5 mm.

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

4.4 Sizes

Table 1 — Seat sizes

Dimensions in millimetres

Size	Size 1	Size 2	Size 3
Seat height	≤ 260	260 - 350	350 – 430

If seating in a range of sizes are all manufactured with identical construction details, it is only necessary to carry out the complete strength, durability and stability tests on the highest size in the range, plus additional stability tests on the smallest size in the range.

4.5 Accessibility

For the purpose of the standard, all parts of the seating are considered accessible to the child.

5 Test equipment

5.1 Finger probes

5.1.1 Finger probes with hemispherical end

Probes mounted on a force measuring device and made from plastic or other hard, smooth material with 7 mm, 12 mm or 18 mm diameter and with a hemispherical end. See Figure 2.



Dimensions in millimetres

Key

1 Hemispherical end

2 Line around circumference

3 $\emptyset 7 \begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$ mm and $12 \begin{smallmatrix} +0,1 \\ 0 \end{smallmatrix}$ mm and $18 \begin{smallmatrix} +0,1 \\ 0 \end{smallmatrix}$ mm

Figure 2 — Finger probe with hemispherical end

5.1.2 Conical probe for mesh

Probe for assessing mesh made from plastics or other hard, smooth material as shown in Figure 3 which shall be capable of being mounted on a force measuring device, so that the conical end can be presented to the opening being assessed.

Dimensions in millimetres

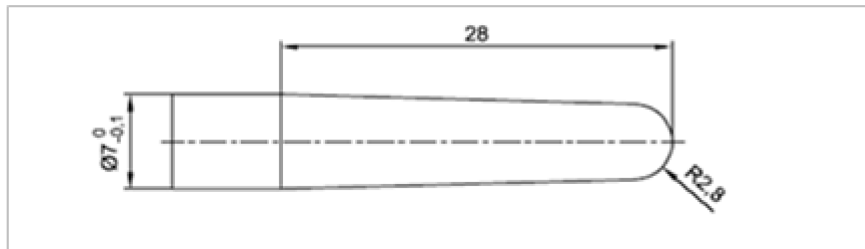
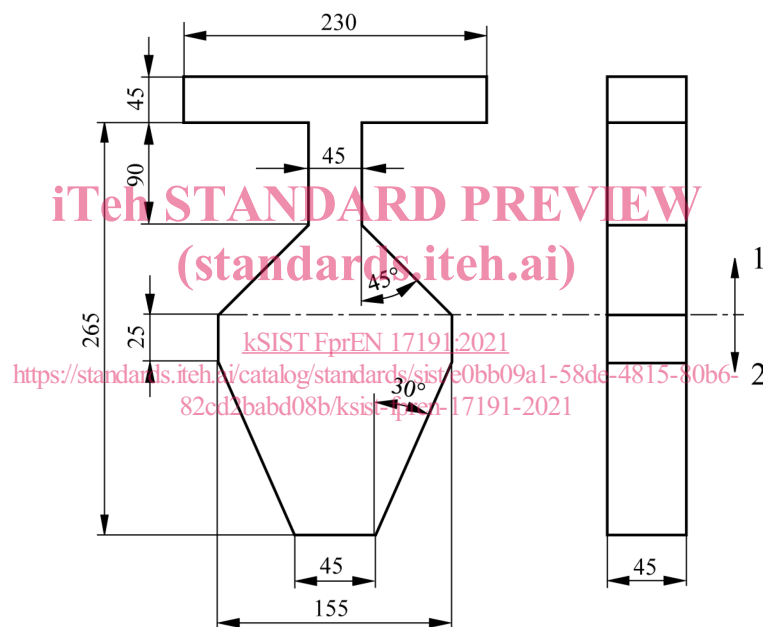


Figure 3 — Conical probe for mesh

5.2 V and irregular shaped template

Template made from plastics or other hard, smooth material with the dimensions given in Figure 4.

Dimensions in millimetres



Key

- 1 B portion
- 2 A portion

Figure 4 — V and irregular shaped template

5.3 Small parts cylinder

Cylinder having the dimensions as shown in Figure 5.

Dimensions in millimetres

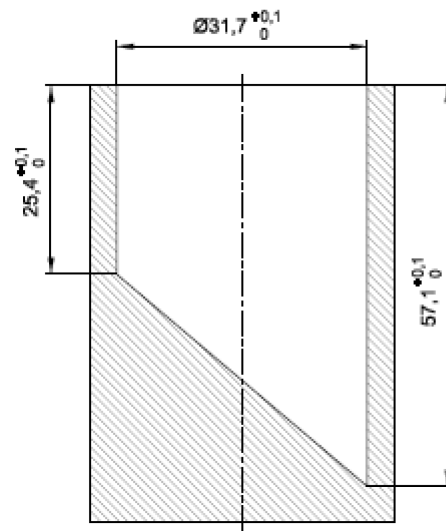


Figure 5 — Small parts cylinder
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5.4 Feeler gauge

Feeler gauge with a thickness of $(0,4 \pm 0,02)$ mm and an insertion edge radius of approximately 3 mm, (see Figure 6).

Dimensions in millimetres

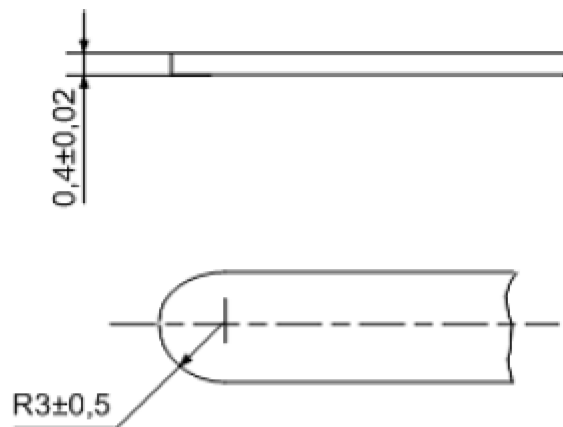


Figure 6 — Feeler gauge