# SLOVENSKI STANDARD
# SIST EN 1130:2020

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**Nadomešča:**
**SIST EN 1130-1:1996**
**SIST EN 1130-2:1996**

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**Pohištvo za otroke - Zibelke - Varnostne zahteve in preskusne metode**

Children's furniture - Cribs - Safety requirements and test methods

Möbel für Kleinkinder - Krippen - Sicherheitstechnischte Anforderungen und Prüfverfahren



Mobilier de puériculture - Berceaux - Exigences de sécurité et méthodes d'essai



**Ta slovenski standard je istoveten z:** **EN 1130:2019**

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**ICS:**

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|---|---|---|
| 97.140 | Pohištvo | Furniture |
| 97.190 | Otroška oprema | Equipment for children |

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English Version

# Children's furniture - Cribs - Safety requirements and test methods

Mobilier de puériculture - Berceaux - Exigences de sécurité et méthodes d'essai

Kindermöbel - Krippen - Sicherheitstechnische Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 15 April 2019.

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## European foreword

This document (EN 1130:2019) 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of an identical text or by endorsement, at the latest by May 2020, and conflicting national standards shall be withdrawn at the latest by May 2020.

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 defines safety requirements and test methods for baby cribs and it was developed in support of the implementation of the General Product Safety Directive (Directive 2001/95/EC).

This document supersedes EN 1130-1:1996 and EN 1130-2:1996.

Compared to EN 1130-1:1996 and EN 1130-2:1996, the following modifications have been made:

— Combination of both parts of EN 1130:1996 in one document;

— Modification of the structure of the document to have a hazards-based approach;

— Introduction and update of the test methods from EN 1130-2:1996;

— Introduction of requirements and test methods for suspended cribs and bedside sleepers;

— Introduction of requirements concerning chemical and thermal hazards;

— Introduction of a A-deviation concerning flammability hazards;

— Introduction of a Rationale in Annex A.



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, Turkey and the United Kingdom.

# 1 Scope

This document specifies safety requirements and test methods for cribs (including cradles, suspended cribs and bedside sleepers) for domestic and non-domestic use.

The requirements apply to cribs with a maximum internal length of crib base of 900 mm which are intended to provide sleeping accommodation for infants, until they are able to sit unaided or pull or push themselves up on their hands and knees.

This document does not apply to electrical safety.

It does not apply to cribs used for medical purposes or used in hospitals.

Products that can be converted into other items may be covered by other relevant European Standards.

Annex A (informative) includes a rationale.

Annex B (informative) includes an A-deviation.

# 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 71-2:2011+A1:2014, *Safety of toys — Part 2: Flammability*

EN 71-3, *Safety of toys — Part 3: Migration of certain elements*



EN 16890, *Children's furniture — Mattresses for cots and cribs — Safety requirements and test methods*

EN ISO 14184-1, *Textiles — Determination of formaldehyde — Part 1: Free and hydrolysed formaldehyde (water extraction method) (ISO 14184-1)*

ISO 48-5, *Rubber, vulcanized or thermoplastic — Determination of hardness — Part 5: Indentation hardness by IRHD pocket meter method*

# 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**
**crib**
piece of furniture intended to provide sleeping accommodation for infants, until they are able to sit unaided or pull or push themselves up on their hands and knees

**3.2**
**cradle**
moving crib (e.g. rocking, swinging or bouncing) but not suspended with cords, straps or the like

Note 1 to entry: Examples of rocking and swinging cribs can be found in Figure 16 b) and c).

**3.3**
**suspended crib**
crib suspended with cords, straps or the like from one or more anchorage points

**3.4**
**bedside sleeper**
crib with one drop side with that side intended to be adjacent to the adult's bed

**3.5**
**mattress base**
crib base and mattress combined in one component.

**3.6**
**shearing hazard**
hazard due to the movement of components relatively one to another resulting in a scissoring action

**3.7**
**crushing hazard**
hazard due to the movement of components relatively one to another resulting in a compression action



# 4 General test conditions



## 4.1 Preliminary preparation

The tests are designed to be applied to a crib that is fully assembled and ready for use.

The test unit shall be stored in indoor ambient conditions for at least 24 h prior to testing.

Before testing, any fabrics intended to be removable shall be cleaned or washed twice in accordance with the manufacturer's instructions. If no instructions are supplied, the manner of washing/cleaning shall be stated in the test report.

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

The crib shall be tested as delivered. If the crib is a knock down type, it shall be assembled according to the manufacturer's instructions supplied with the crib. If the crib can be assembled, combined or adjusted in different ways, the most adverse combination shall be used for each test.

Knock-down fittings shall be tightened before testing. Re-tightening during remaining tests shall not take place unless this is specifically required by the manufacturer.

## 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 and kinetic heating does not occur.

Unless otherwise stated, static forces, including tension, torque test, 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 N = 1 kg shall be used.

### 4.3 Tolerances

Unless otherwise stated, the following tolerances apply:

— Forces: ± 5 % of the nominal force;

— Angles: ± 2° of the nominal angle;

— Masses: ± 1 % of the nominal mass;

— Dimensions: ± 1,0 mm of the nominal dimension;

— Positioning of loading pads: ± 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 Definition of the protected volume

When the crib is assembled according to the manufacturer's instructions the protected volume is defined as follows:

— when a child's hand can neither reach through sides nor ends, inside of the crib and the exterior of the crib 50 mm measured in any direction from the upper part of the rim ;

— when a child's hand can reach through sides or ends, whole crib, except for the underside of the crib base



## 5 Test equipment



### 5.1 General

Unless otherwise specified, test forces may be applied by any suitable device, because results are dependent only upon correctly applied forces and loads, and not upon apparatus.

### 5.2 Test mass

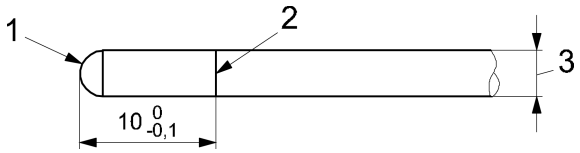
The test mass is a rigid cylinder (120 ± 5) mm in diameter and (180 ± 5) mm in height, having a mass of $9^{+0,01}_{-0}$ kg and with its centre of gravity in the centre of the cylinder. All edges shall be rounded with radius of (5 ± 1) mm.

### 5.3 Entrapment test probes

#### 5.3.1 Finger probes with hemispherical end

Probes with hemispherical end made of plastic or other hard, smooth material, mounted on a force-measuring device. See Figure 1.

Dimensions in millimetres




**Key**

1 hemispherical end

2 scribed line circumference

3 $\varnothing\, 7\,^{0}_{-0,1}$ mm, $12\,^{+0,1}_{0}$ mm or $18\,^{+0,1}_{0}$ mm

**Figure 1 — Finger probes with hemispherical end**

### 5.3.2 Finger probe for mesh

A probe with the end as specified in Figure 2 made of plastic or other hard, smooth material mounted on a force-measuring device with a diameter of $7^{+0}_{-0,1}$ mm. The radius is (2,8 ± 0,2) mm.

Dimensions in millimetres




**Figure 2 —Finger probe for mesh**

### 5.3.3 Other probes

Probes with the ends at an angle of 30° ± 0,5° made of plastic or other hard, smooth material mounted on a force-measuring device, one each with a diameter $25^{+0,1}_{-0}$ mm, $45^{+0,1}_{-0}$ mm, and $65^{+0,1}_{-0}$ mm with rounded or conical ends, see Figure 3.

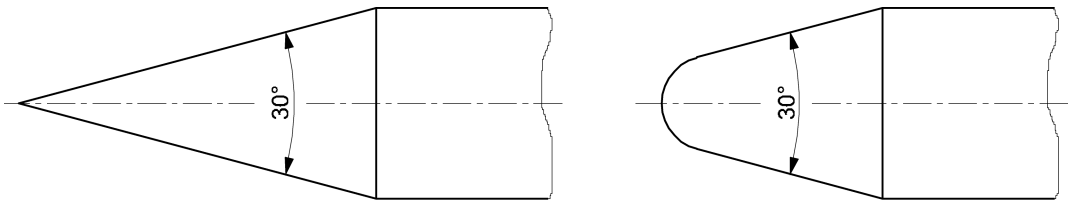
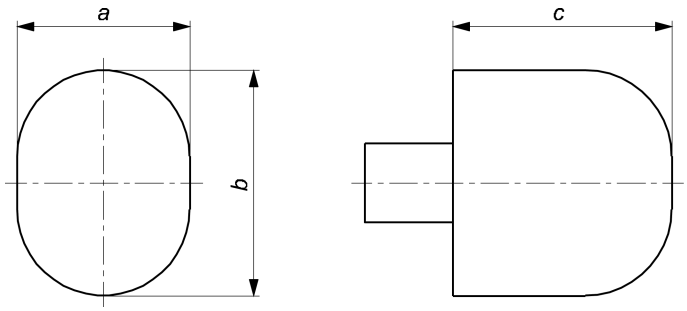



**Figure 3 — Other probes**

### 5.3.4 Small head probe

A probe made from plastic or other hard, smooth material with the dimensions given in Figure 4. The radius shall be 53 mm.




**Key**

a 106 mm

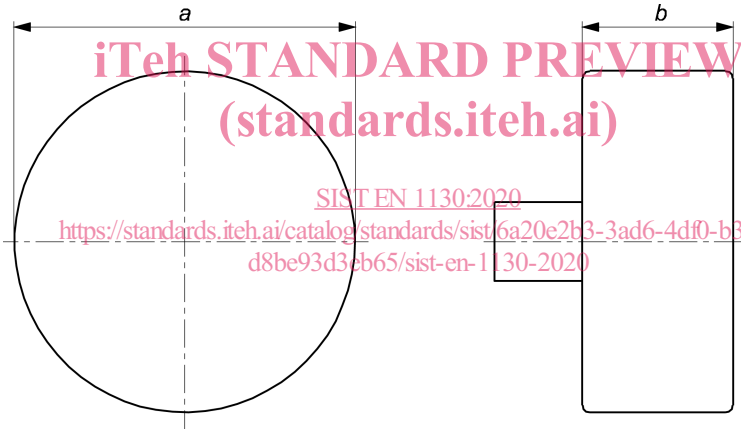
b 145 mm

c 126 mm

**Figure 4 — Small head probe**

### 5.3.5 Large head probe

A probe made of plastic or other hard, smooth material with the dimensions given in Figure 5.






**Key**

a 223 mm

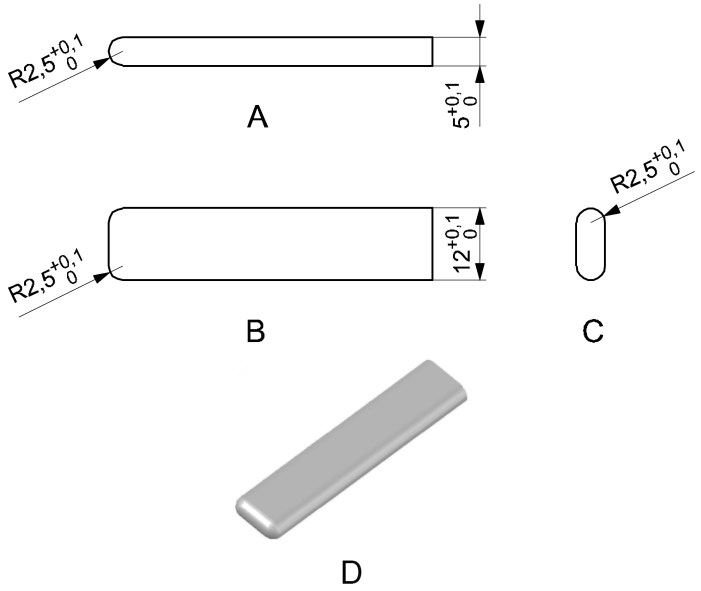
b 100 mm

**Figure 5 — Large head probe**

### 5.3.6 Shape assessment probe

Probe made from plastics or other hard smooth materials with the dimensions shown in Figure 6.

Dimensions in millimetres




**Key**

A side view

B top view

C face view

D isometric view



**Figure 6 — Shape assessment probe**



## 5.4 Side impactor

A pendulum with a cylindrical head made of steel (Figure 7). The head of the pendulum shall be surrounded by a 10 mm thick layer of rubber of hardness 76 IRHD to 78 IRHD in accordance with ISO 48-5. The total mass shall be 2 kg.