SLOVENSKI STANDARD
SIST EN 16120:2013+A2:2017

01-marec-2017

Nadomešča:
SIST EN 16120:2013+A1:2014

Izdelki za otroke - Otroški sedeži, ki se pritrdijo na stol (vključno z dopolnilom A2)

Child use and care articles - Chair mounted seat

Artikel für Säuglinge und Kleinkinder - Sitzerhöhungen für Stühle

Articles de puériculture - Rehausseurs de chaise

Ta slovenski standard je istoveten z: **EN 16120:2012+A2:2016**

ICS:

97.140	Pohištvo	Furniture
97.190	Otroška oprema	Equipment for children

SIST EN 16120:2013+A2:2017 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 16120:2012+A2

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ICS 97.190; 97.140

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English Version

Child use and care articles - Chair mounted seat

Articles de puériculture - Rehausseurs de chaise

Artikel für Säuglinge und Kleinkinder - Sitzerhöhungen für Stühle

This European Standard was approved by CEN on 25 February 2014 and includes Amendment 2 approved by CEN on 17 September 2016.

This European Standard was corrected and reissued by the CEN-CENELEC Management Centre on 18 January 2017.

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

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European foreword

This document (EN 16120:2012+A2:2016) has been prepared by Technical Committee CEN/TC 252 “Child use and care articles”, the secretariat of which is held by AFNOR.

A2⟩ 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of an identical text or by endorsement, at the latest by June 2017, and conflicting national standards shall be withdrawn at the latest by December 2017. ⟨A2

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.

A2⟩ This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association. ⟨A2

This document includes Amendment 1 approved by CEN on 2014-02-25 and Amendment 2 approved by CEN on 2016-09-17.

This document supersedes A2⟩ EN 16120:2012+A1:2014 ⟨A2.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1⟩ ⟨A1 and A2⟩ ⟨A2.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

[A2] This European Standard specifies safety requirements and test methods for chair mounted seats intended to be positioned on an adult chair to raise the sitting position of a child able to sit unaided up to an age of 36 months or a maximum weight of 15 kg.

This European Standard does not apply to cushions, pads and to products only aimed at restraining the child on a chair without raising the child's sitting position. [A2]

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.

[A2] EN 71-2:2011+A1:2014, *Safety of toys — Part 2: Flammability* [A2]

[A2] EN 71-3 [A2], *Safety of toys — Part 3: Migration of certain elements*

[A2] *deleted text* [A2]

EN ISO 2439, *Flexible cellular polymeric materials — Determination of hardness (indentation technique) (ISO 2439)*

3 Terms and definitions

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

3.1
chair attachment system
system designed to attach the chair mounted seat to the adult chair

3.2
restraint system
system to restrain the child within the chair mounted seat

3.3
waist restraint
device to restrain the child in the waist area

3.4
crotch restraint
device to fit between the child's legs

[A2]

3.5
locking device
mechanical component that maintains part(s) of the product when erected in the position of use (e.g. latch(es), hooks, over centre lock...) which can be activated or deactivated by action(s) on the operating device

3.6
operating device
part of the locking mechanism(s) designed to be activated by the carer through one or several positive action(s)

3.7
locking mechanism
assembly of components consisting of one or more locking device(s) and one or more operating device(s) A2

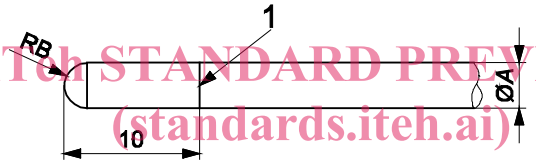
4 Test equipment

4.1 Test probes for finger entrapment

Probes made from plastics or other hard, smooth material of diameters $7\ ^{0}_{-0,1}$ mm and $12\ ^{+0,1}_{0}$ mm with a full hemispherical end that can be mounted on a force-measuring device, see Figure 1.

Mesh probe made from plastics or other hard, smooth material as shown in Figure 2.

Dimensions in millimetres



Key

1 line scribed around circumference showing depth of penetration

Probe type	7 mm probe	12 mm probe
Diameter A	$7\ ^{0}_{-0,1}$	$12\ ^{+0,1}_{0}$
Radius RB	3,5 ± 0,2	6 ± 0,2

Figure 1 — Test probes with hemispherical end

Dimensions in millimetres

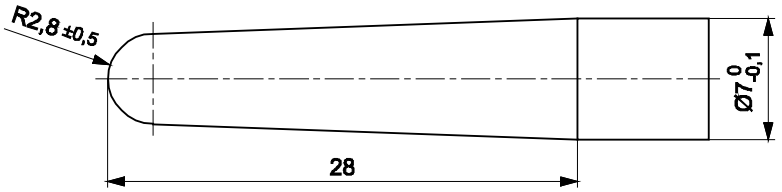


Figure 2 — Test probe for mesh

4.2 Test mass A

A cylindrical bag with a diameter of 180 mm filled with sand to a total mass of 10 kg.

4.3 Test foam

Soft foam sheet (for example polyurethane) having a thickness of 25 mm with a bulk density of (30 ± 2) kg/m³ and an indentation hardness index of 170 ± 20 according to EN ISO 2439.

4.4 Small parts cylinder

Small parts cylinder for the assessment of small components, having dimensions in accordance with Figure 3.

Dimension in millimetres

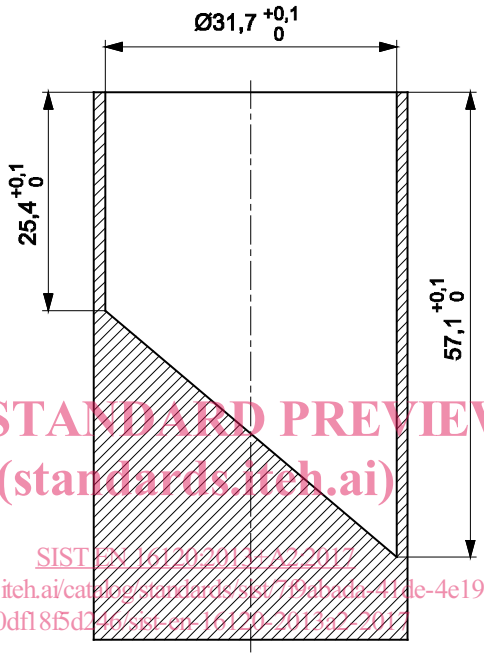


Figure 3 — Small parts cylinder

4.5 Feeler gauge

Gauge with a thickness of (0,4 ± 0,02) mm and an insertion edge radius of (3 ± 0,5) mm (see Figure 4).

Dimensions in millimetres

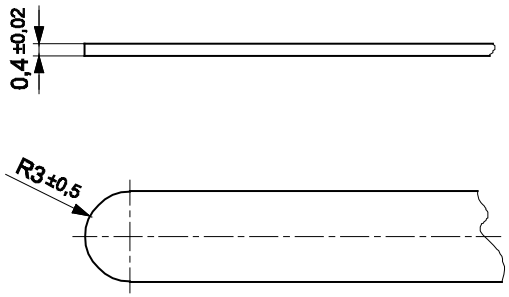
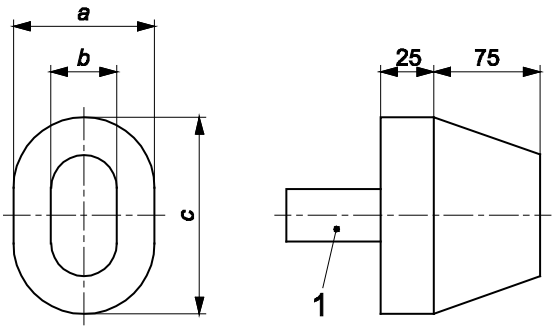


Figure 4 — Feeler gauge

A2

4.6 Small torso probe

The small torso probe shall be made from plastics or other hard, smooth material with dimensions as shown in Figure 5.



Dimensions in millimetres

a	b	c
86	40	120

Key

1 handle

Figure 5 — Small torso probe

4.7 Test beam

A beam, 86 mm wide with a mass of 0,5 kg ± 10 g.

4.8 Test sphere

A sphere made of steel with a diameter of 90 mm and a weight of (3,0 ± 0,1) kg. A2

5 General

5.1 Product conditioning

Before testing, any fabrics used shall be cleaned or washed and dried twice in accordance with the manufacturer's instructions.

5.2 Test conditions

The tests shall be carried out at a temperature of (20 ± 5) °C.

The tests are designed to be applied to chair mounted seats that are fully assembled and ready for use in accordance with the manufacturer’s instructions. If the chair mounted seat can be assembled or adjusted in different ways, the most onerous combination shall be used for each test.

5.3 Application of forces

The forces in the static load tests shall be applied sufficiently slowly to ensure that negligible dynamic force is applied.

5.4 Tolerances

Unless otherwise stated, the following tolerances apply:

— Forces: ± 5 % of the nominal force;

— Masses: ± 0,5 % of the nominal mass;

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

— Angles: ± 2° of the nominal angle;

— Positioning of loading pads: ± 5 mm;

— Duration of forces: ± 1 s.

The tests are described in terms of the application of forces. Masses can however be used: 1 kg mass may be used for 10 N force.

Unless otherwise specified, the test forces may be applied by any suitable device which does not adversely affect the results.

5.5 Order of test

Unless otherwise stated, the requirements of Clause 8 shall be assessed on the same chair mounted seat in the order listed in this standard.

6 Chemical hazards - Migration of certain elements (see A.2)

A2 The migration of elements from materials on exterior surfaces shall not exceed the limits listed below.

Element	mg/kg
Aluminium	70 000
Antimony	560
Arsenic	47
Barium	18 750
Boron	15 000
Cadmium	17
Chromium (III)	460
Chromium (VI)	0,2
Cobalt	130
Copper	7 700
Lead	160
Manganese	15 000
Mercury	94
Nickel	930
Selenium	460
Strontium	56 000
Tin	180 000
Organic tin	12

Zinc	46 000

Materials on the back of the backrest and under the seat level are excluded from these requirements.

When testing is performed the method described in EN 71-3 shall be used.

A separate sample may be used for these tests. A2

7 Thermal hazards (see A.3)

A2

7.1 Requirements

When tested in accordance with 7.2, there shall be no surface flash.

A separate sample, conditioned according to 5.1, may be used for these tests.

7.2 Test method

Apply the test flame defined in EN 71-2:2011+A1:2014, 5.5 for (3 ± 0,5) s to the chair mounted seat in different places likely to cause surface flash. A2

8 Mechanical hazards (see A.4)

8.1 Hazards due to height adjustment or folding of the product

8.1.1 General

Chair mounted seats in which the height of the sitting area can be adjusted shall have locking mechanism(s), complying with 8.1.2, to maintain the chair mounted seat in its position of normal use.

Chair mounted seats in which the base can be folded for storage shall have locking mechanism(s), complying with 8.1.2, to maintain the chair mounted seat in its position of normal use.

Chair attachment systems shall not be considered as locking mechanisms for height adjustment of the sitting area.

Inflatable systems shall be fitted with non-return valves.

8.1.2 Unintentional release of locking mechanism(s)

A2 To avoid the hazards due to unintentional release of locking mechanisms, one of the following conditions shall be fulfilled before and after testing in accordance with 8.1.3:

a) at least one operating device requires an operating force greater than 50 N measured with and without a mass of 15 kg on the seat, or

b) at least one locking mechanism is released by the use of a tool, or

c) at least one operating device requires at least two consecutive actions, the first of which shall be maintained while the second is carried out, or

d) at least one locking mechanism is released when two independent operating devices are simultaneously operated.

Inflatable systems are excluded from the requirements of this clause.

Products that in every position of use have to be removed from the adult chair to adjust the height or to fold the base for storage are excluded from the requirements of this clause.

NOTE The exclusion of the last paragraph applies only to products that need to be detached from the adult chair to adjust the height or to fold the base (e.g. disassemble the product and re-assemble it in another configuration), no matter what the instructions for use say. The need to remove just the child from the product to adjust the height or fold the base is not enough to apply the exclusion.

〈A2〉

8.1.3 Test method for the durability of the locking mechanisms

Operate 300 times any locking mechanism(s).

8.2 Entrapment hazards (see A.4.1)

8.2.1 Entrapment of fingers

8.2.1.1 Requirement

After the chair mounted seat is set up for normal use in accordance with the manufacturer's instructions, there shall be no accessible completely bounded circular openings between 7 mm and 12 mm unless the depth is less than 10 mm, when tested in accordance with 8.2.1.2.

After the chair mounted seat is set up for normal use in accordance with the manufacturer's instructions, there shall be no accessible openings in mesh that allow the test probe for mesh (4.1) to penetrate up to the 7 mm diameter section, when tested in accordance with 8.2.1.2.

The test shall be carried out with the product in any intended position of use.

This requirement does not apply to the restraint system.

8.2.1.2 Test method

Check whether the 7 mm probe (4.1) with an applied force of up to 30 N, enters 10 mm or more into any accessible completely bounded circular opening in any possible orientation.

If the 7 mm probe enters 10 mm or more, then the 12 mm probe (4.1), shall also enter 10 mm or more with an applied force of up to 5 N.

Check whether the test probe for mesh (4.1) with an applied force of up to 30 N, penetrates accessible openings in mesh up to the 7 mm diameter section.

〈A2〉

8.2.2 Entrapment of head

8.2.2.1 Requirements

With the exception of the entrance to the seat unit and the openings for the child's legs to pass through, there shall be no holes, gaps or openings above the seat surface which allows the small torso probe (4.6) to pass through when tested in accordance with 8.2.2.2.

8.2.2.2 Test method

Check whether the small torso probe (4.6) with an applied force of up to 30 N, enters into any accessible opening above the seat surface. The probe shall be inserted in a straight direction along the longitudinal axis of the probe. 〈A2〉