SLOVENSKI STANDARD
oSIST prEN 14344:2018

01-november-2018

Izdelki za otroke - Otroški sedeži za kolesa - Varnostne zahteve in preskusne metode

Child care articles - Child seats for cycles - Safety requirements and test methods

Artikel für Säuglinge und Kleinkinder - Kindersitze für Fahrräder - Sicherheitstechnische Anforderungen und Prüfverfahren

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

Ta slovenski standard je istoveten z: **prEN 14344**

ICS:

43.150	Kolesa	Cycles
97.190	Otroška oprema	Equipment for children

oSIST prEN 14344:2018 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN 14344

November 2018

ICS 97.190

Will supersede EN 14344:2004

English Version

Child care articles - Child seats for cycles - Safety requirements and test methods

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

Artikel für Säuglinge und Kleinkinder - Kindersitze für Fahrräder - Sicherheitstechnische Anforderungen und Prüfverfahren

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 252.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (prEN 14344:2018) has been prepared by Technical Committee CEN/TC 252 “Child use and care articles”, the secretariat of which is held by AFNOR.

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 EU Directive(s).

1 Scope

This document specifies requirements for child seats intended to be mounted on cycles and electrical power assisted cycles with a cut off speed of up to 25 km/h (i.e. according to EN 15194), their attachment system and accessories intended to be attached to the seat in order to transport children with a weight from 9 kg up to 22 kg and who are capable of sitting unaided.

NOTE 1 Some European countries have special legislation for child seats for cycles.

NOTE 2 Where a child seat or any part of the child seat has several functions or can be converted into another function, other relevant standards might be applicable.

2 Normative references

The following referenced documents are indispensable for the application 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, *Safety of toys — Part 1: Mechanical and physical properties*

EN 71-3:2013+A3:2018, *Safety of toys — Part 3: Migration of certain elements*

ISO 11243, *Cycles — Luggage carriers for bicycles — Requirements and test methods*

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
seat
child seat intended to be mounted on a cycle

3.2
front seat
child seat intended to be mounted on a cycle in front of the rider (between handlebar of the cycle and rider)

3.3
rear seat
child seat intended to be mounted on a cycle behind the rider

3.4
reclining seat
front or rear seat that can transport a child either in an upright or in a reclined sitting position

3.5
integral guard
guard that is part of the seat (for example a footrest) and cannot be removed

3.6
detachable guard
guards that are always provided with the seat, or pre-assembled with, and can be removed

3.7
reference plane (see Annex A)
plane defined by the top surface of the measuring device

3.8
attachment system
structure to attach the child seat to the cycle

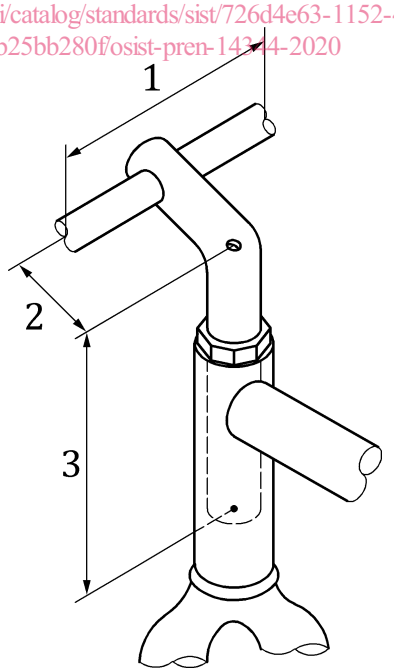
3.9
footrest
structure to support the child's foot

3.10
protected volume
volume accessible by the child, when sitting, where specific safety requirements are necessary

3.11
handlebar and handlebar stem assembly (see Figure 1)
handlebar – that is held by rider

extension – part of the handlebar stem that positions the handlebar in front of the steering axis

quill – part of some designs of the handlebar stem, that is co-axial with the steering axis and that fits partly into the fork steering tube



Key

1 handlebar
2 extension
3 quill

Figure 1 — Handlebar and handlebar stem assembly

3.12
restraint system
device designed to restrain the child in a sitting and safe position

3.13
crotch restraint
device designed to pass between the child's legs to prevent the child from sliding forward

3.14
cycle
vehicle that has at least two wheels and is propelled solely or mainly by the muscular energy of the person on that vehicle, in particular by means of pedals

3.15
electrically power assisted cycle (EPAC)
cycle, equipped with pedals and an auxiliary electric motor, which cannot be propelled exclusively by means of this auxiliary electric motor, except in the start-up assistance mode

3.16
accessories
additional elements that are attached directly to the child seat

Note 1 to entry: Are not considered as accessories: footrest, restraint system, integral an additional guard, attachment system.

3.17
headrest
postural support device intended to support the head

3.18
plastic sheeting
thin section plastic sheeting which is used as part of the seat or as part of the packaging

Note 1 to entry: Decals are covered by this definition.

3.19
operating device
part of the *locking mechanism(s*) designed to be activated by the carer through one or several positive action(s)

3.20
locking mechanism
assembly of components consisting of one or more *locking device(s)* and *one or more operating device(s)*

3.21
lateral protection
part of the bicycle seat designed to keep the child inside the seat and to provide sufficient armrest

4 General requirements and test conditions

4.1 General

Seats are classified according to the weight and height of the child carried and their mounting position on the cycle (see Table 1).

Front seat shall not be attached to the handlebar of the cycle or the extension of the handlebar as defined in 3.11.

NOTE Additional regulations may apply on the location of the attachment of the seat on the bicycle (e.g. German and Austrian road traffic regulations).

Table 1 — Classification of seats

Type of seat	**Height/Weight/capacity range** kg	
	9 – 15	**9 – 22**
Rear seat	A15	A22
Front seat between handlebar of the cycle and rider	C15	Not permitted
Standing height of the child (mm) [a]	930	1 100
Front seat in front of handlebar of the cycle	Not permitted	Not permitted
[a] SOURCE: Who child growth standards.		

EXAMPLE Designation of a seat to be mounted behind the rider (A), maximum load 15 kg (15): Child seat A15.

4.2 Principle of the most onerous condition

All tests shall be conducted according instructions for use.

It is allowed to use any cycle that is suitable according to this information.

Unless otherwise stated each test shall be conducted with the child seat in the most onerous condition for that test in terms of:

— the addition (or not) of any other accessories supplied or recommended by the manufacturer for use with The child seat and with accessories loaded according to the manufacturer's instructions;

— the adjustment of the child seat, and any other adjustable features (e.g. reclined backrest) or accessories, or any other optional arrangement of the child seat allowed in the manufacturer's instructions or otherwise approved by the manufacturer;

— any removable padding shall be installed during the measurements.

NOTE The heaviest loads do not always produce the most onerous conditions.

4.3 Tolerances and test conditions

Unless otherwise stated the following tolerances shall be used: All forces shall have an accuracy of ± 5 %.

All masses shall have an accuracy of ± 1 %.

All dimensions shall have an accuracy of ± 1,0 mm.

All time measurements shall have an accuracy of ± 1s. All angles shall have an accuracy of ± 1°.

All frequencies, amplitudes shall have an accuracy of ± 5 %.

The seat shall be conditioned at a temperature of (23 ± 5) °C for at least 2 h prior to test. All tests shall be carried out at a temperature of (23 ± 5) °C unless otherwise specified.

4.4 Order of tests

The test shall be carried out in the order that they appear in this document. All tests shall be performed on one seat.

Following tests shall be tested in the order that they appears in this standard:

— fatigue;

— static;

— impact.

A separate sample could be used for all other tests.

5 Test equipment

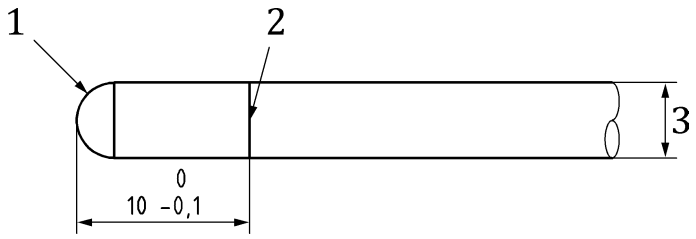
5.1 Test probes

5.1.1 Finger probes

5.1.1.1 Finger probe with hemispherical end

Probes made from plastics or other hard, smooth material of diameters $5\,^{0}_{-0,1}$ mm and $7\,^{0}_{-0,1}$ mm, with a full hemispherical end (see Figure 2).

Dimensions in millimetres



Key

1 R 2,5 or 3,5

2 line scribed around circumference showing depth of penetration

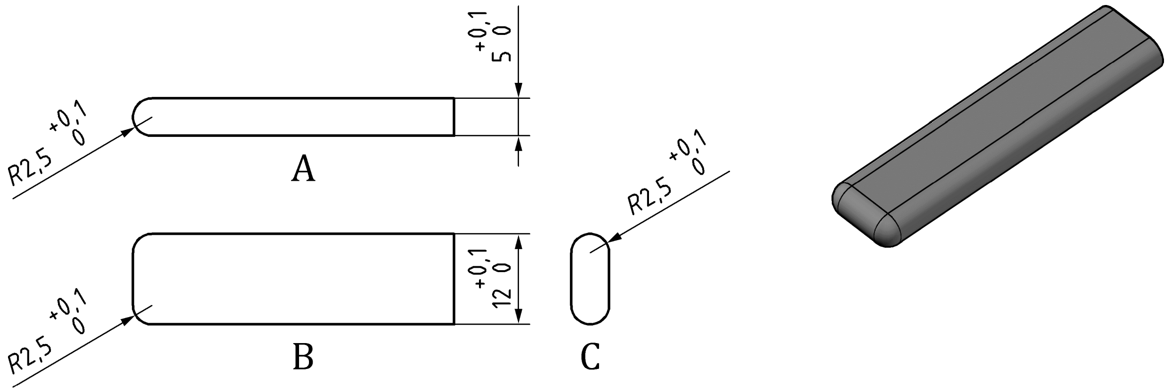
3 $Ø\,(5\,^{0}_{-0,1})$ or $Ø\,(7\,^{0}_{-0,1})$

Figure 2 — 5 mm, 7 mm probes

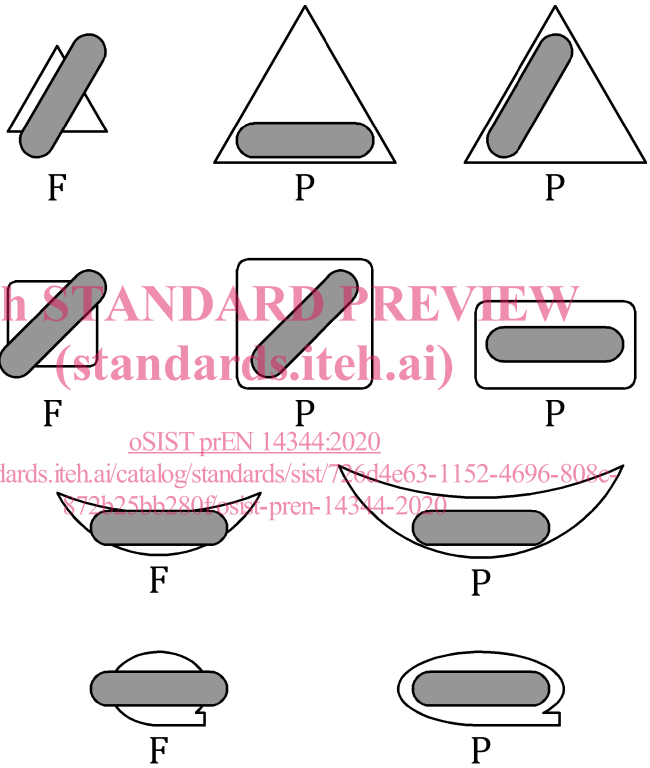
5.1.1.2 Shape assessment probe

Probes made from plastics or other hard, smooth material with the dimensions shown in Figure 3 below.

Dimensions in millimetres



a)



b)

Key

A	front view
B	top view
C	side view
D	3D view
	shape assessment probe
F	Fail
P	Pass

Figure 3 — Shape assessment probe

5.1.1.3 Conical probe for mesh

Probe for assessing mesh made from plastics or other hard, smooth material as shown in Figure 4 — Conical probe for mesh below 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

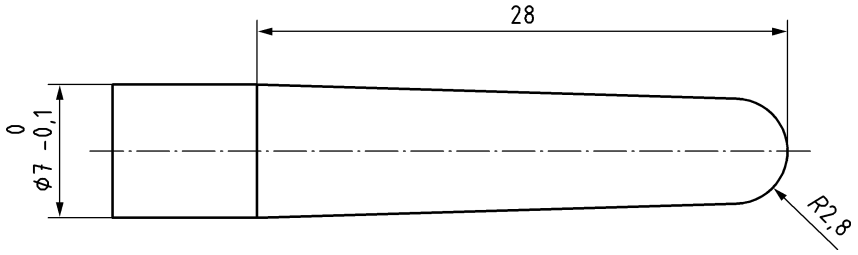


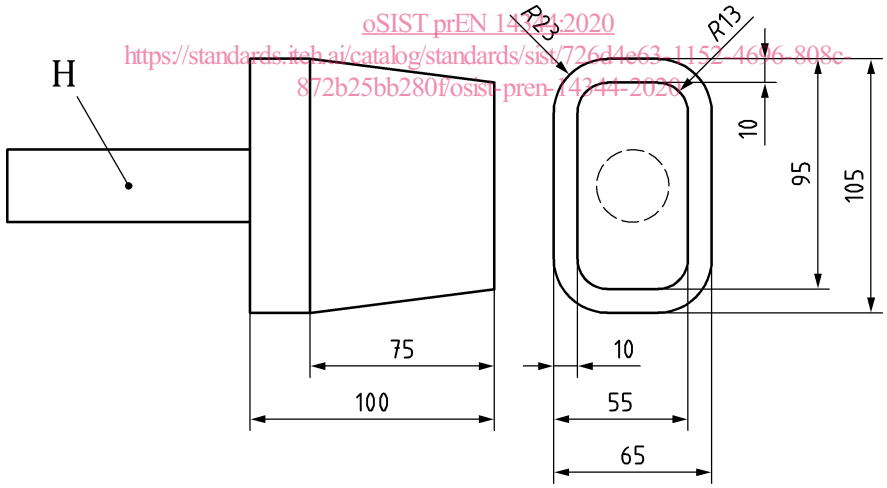
Figure 4 — Conical probe for mesh

The tolerance on the radius is ± 0,2 mm.

5.1.2 Hip probe

The hip probe shall be made from plastics or other hard, smooth material with the dimensions given in Figure 5 below.

Dimensions in millimetres



Key

H handgrip

Tolerances on dimensions:

- 65 (0 / –0,5) mm
- 105 (0 /–0,5) mm

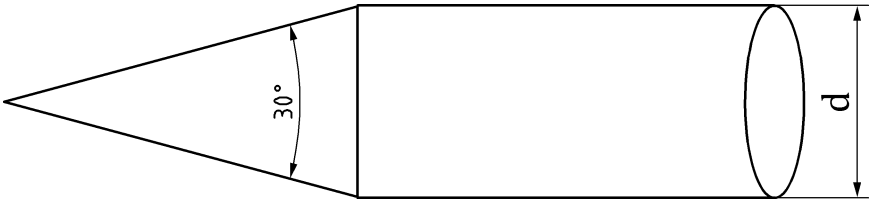
All other dimensions shall be ± 1 mm

Figure 5 — Hip probe

5.1.3 Conical probes

Probes made from plastics or other hard smooth material of diameters (12 + 0,1 / 0), (25 0 / –0,1), mm and (45 + 0,1 / 0) mm with one conical end (with an angle of 30°), that can be mounted on a force measuring device (see Figure 6 below).

Dimensions in millimetres



Key

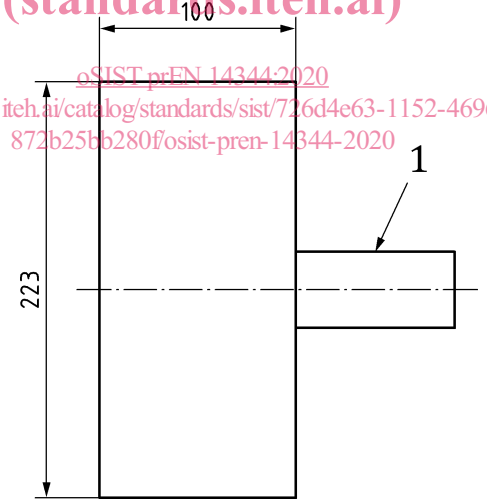
d diameter (12, 25 or 45)

Figure 6 — Conical probes

5.1.4 Large head probe

The large head probe shall be made from plastic or other hard smooth material, with dimensions as shown in Figure 7 below.

Dimensions in millimetres



Key

1 handgrip

Figure 7 — Large head probe