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provningmetoder**

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cycles – Safety requirements and test methods**

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## Child use and 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

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## **EN 14344:2004 (E)**

### **Foreword**

This document (EN 14344:2004) has been prepared by Technical Committee CEN/TC 252 “Child use and care articles”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by February 2005, and conflicting national standards shall be withdrawn at the latest by February 2005.

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).

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This document specifies requirements for child seats for cycles, which are intended to be mounted on pedal cycles and electrically power assisted bicycles, in order to transport children with a weight from 9 kg up to 22 kg (approximately 9 months up to 5 years) and who are capable of sitting unaided.

NOTE Some European countries have special legislation for child seats for cycles. Compliance with this document may not meet this legislation.

## 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 71-1:1998, *Safety of toys – Part 1: Mechanical and physical properties.*

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

EN 1811, *Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin.*

EN ISO 1043-1, *Plastics – Symbols and abbreviated terms – Part 1: Basic polymers and their special characteristics (ISO 1043-1:2001).*

EN ISO 1043-2, *Plastics – Symbols and abbreviated terms – Part 2: Fillers and reinforcing materials (ISO 1043-2:2000).*

ISO 4628-3, *Paints and varnishes - Evaluation of degradation of coatings - Designation of quantity and size of defects, and of intensity of uniform changes in appearance - Part 3: Assessment of degree of rusting.*

ISO 9227, *Corrosion tests in artificial atmospheres – Salt spray tests.*

ISO 11243, *Cycles – Luggage carriers for bicycles – Concepts, classification and testing.*

## 3 Terms and definitions

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

### 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 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

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### 3.5

#### **integral guard**

guard that is part of, or pre-assembled with, another essential and major part of the seat (for example a footrest) and cannot be removed or can be removed by the use of tools only

### 3.6

#### **additional guard**

guards that are always provided with the seat, but do not satisfy the definition of an integral guard

### 3.7

#### **central plane**

vertical plane on which lies the centre line of the cycle, seat and the measuring instrument

### 3.8

#### **reference plane**

horizontal plane defined on the seat measuring instrument, above the lowest points of the main sitting area of the seat

### 3.9

#### **attachment system**

structure to attach the child seat to the cycle

### 3.10

#### **footrest**

structure to support the child's foot

### 3.11

#### **accessibility zone**

zones that are likely to be reached by the hands or toes of the child in the seat

### 3.12

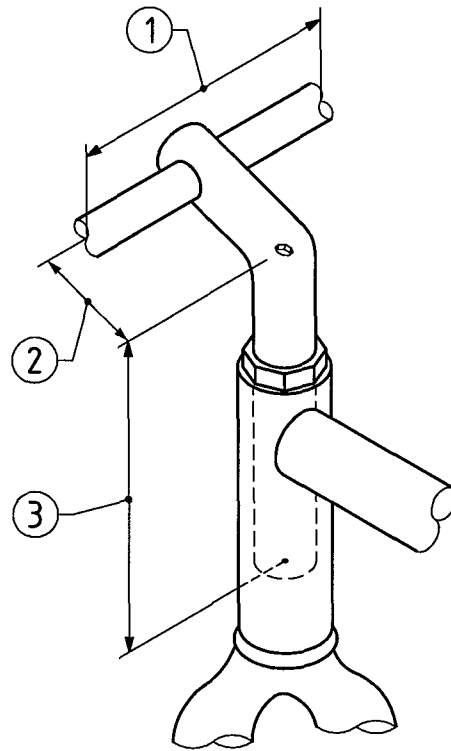
#### **handlebar and handlebar stem assembly (see Figure 1)**

1 handlebar – that is held by rider

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

3 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

### 3.13 restraint system

device designed to keep the child sitting in a safe position in the seat

### 3.14 crotch restraint

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

## 4 Classification

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

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**Table 1 — Classification of seats**

Type of seat	Weight/capacity range	
	kg	
	9 – 15	9 – 22
Rear seat	A15	A22
Front seat between handlebar and rider	C15	Not permitted
Front seat in front of handlebar	Not permitted	Not permitted

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

**5 General requirements and test conditions**

**5.1 Principle of the most onerous condition**

Where a test calls for a seat to be mounted on a cycle, the tester shall refer to the purchase information (see 13) and instructions for use (see 14). It is allowed to use any cycle that is suitable according to this information. Each test shall be conducted with the seat in the most onerous condition for that test.

**5.2 Tolerances and test conditions**

Unless otherwise stated the following tolerances shall be used :

All forces shall have an accuracy of  $\pm 5\%$ .

All masses shall have an accuracy of  $\pm 1\%$ .

All dimensions shall have an accuracy of  $\pm 1,0$  mm.

All time measurements shall have an accuracy of  $\pm 1s$ .

All angles shall have an accuracy of  $\pm 1^\circ$ .

All frequencies, amplitudes shall have an accuracy of  $\pm 5\%$ .

The seat shall be conditioned at a temperature of  $(23 \pm 5)^\circ\text{C}$  for at least 2 h prior to test. All tests shall be carried out at a temperature of  $(23 \pm 5)^\circ\text{C}$  unless otherwise specified.

**5.3 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.

## **6 Construction**

### **6.1 Dimensions**

#### **6.1.1 Seating area and footrests**

##### **6.1.1.1 Requirements for seating area and footrests**

The dimensions of the main child supporting areas of the seat shall comply with items a, b, c, d, e and f in Table 2, when measured in accordance with 6.1.1.3.

NOTE 1 The reference plane of this measuring instrument lies approximately 55 mm above the sitting area, and measurements are made at or relative to this plane. Dimensions c and d in Table 2 are therefore some 55 mm less than the full dimensions of these features, whereas the dimensions in f are greater by a similar amount.

NOTE 2 The items h, i and j are not requirements but necessary points for the measuring instrument.

NOTE 3 For item f : the length of the lower leg is adjustable.