



**SLOVENSKI STANDARD**  
**oSIST prEN 12221:2024**  
**01-januar-2024**

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**Izdelki za otroke - Previjalne mize in blazine za domačo uporabo - Varnostne zahteve in preskusne metode**

Child care articles - Changing units and changing pads for domestic use - Safety requirements and test methods

Artikel für Säuglinge und Kleinkinder - Wickeleinheiten und Wickelauflagen für den Hausgebrauch - Sicherheitstechnische Anforderungen und Prüfverfahren

Articles de puériculture - Dispositifs à langer et matelas à langer à usage domestique - Exigences de sécurité et méthodes d'essai

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**prEN 12221**

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12221-2:2008+A1:2013

English Version

## Child care articles - Changing units and changing pads for domestic use - Safety requirements and test methods

Articles de puériculture - Dispositifs à langer et  
matelas à langer à usage domestique - Exigences de  
sécurité et méthodes d'essai

Artikel für Säuglinge und Kleinkinder -  
Wickeleinheiten und Wickelauflagen für den  
Hausgebrauch - Sicherheitstechnische Anforderungen  
und Prüfverfahren

This draft European Standard is submitted to CEN members for second 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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**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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**prEN 12221:2022 (E)****European foreword**

This document (prEN 12221:2023) 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 2<sup>nd</sup> CEN Enquiry.

This document will supersede EN 12221-1:2013 and EN 12221-2:2013.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZA, which is an integral part of this document.

In comparison with EN 12221-1:2013 and EN 12221-2:2013, the significant technical changes relate to the following topics:

- a) Adoption of the hazard based format;
- b) Unification of the two parts in one single document;
- c) Inclusion of changing pads and changing unit accessories;
- d) Update of terms and definitions;
- e) Update of chemical hazards;
- f) Update of thermal hazards;
- g) General update of the mechanical requirements to the state of the art;
- h) Addition of requirements for accessibility filling materials; <https://standards.iteh.ai/catalog/standards/sist/ecf1574c-dd4b-4a5f-88dc-6f13e7df6416/osist-pren-12221-2024>
- i) Addition of durability requirements;
- j) Modification of product information and addition of specific symbols;
- k) Addition of rationales.

## 1 Scope

This document specifies safety requirements and test methods for changing units, changing pads and changing unit accessories for domestic use.

This document only covers the function of the item as a changing unit. If the item can be converted or used for another function (e.g. cots, storage furniture, bath tubs and stands, etc.), other relevant European Standards apply.

The changing unit can be foldable and can be fitted with a child bathtub or other additional items.

## 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 71-2:2020, *Safety of toys - Part 2: Flammability*

EN 71-3:2019+A1:2021, *Safety of toys - Part 3: Migration of certain elements*

EN 717-1:2004, *Wood-based panels - Determination of formaldehyde release - Part 1: Formaldehyde emission by the chamber method*

EN 13986:2004+A1:2015, *Wood-based panels for use in construction - Characteristics, evaluation of conformity and marking*

EN ISO 14184-1:2011, *Textiles - Determination of formaldehyde - Part 1: Free and hydrolysed formaldehyde (water extraction method) (ISO 14184-1:2011)*

ISO 48-5:2018, *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 <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

### 3.1

#### **changing unit**

elevated structure designed to support a child in a lying position for the purpose of allowing a caregiver to clean and/or change the child

### 3.2

#### **bathtub mounted changing unit**

changing unit intended to be mounted on an adult household bathtub

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### 3.3

#### **wall mounted changing unit**

non-standalone changing unit intended to be attached to a wall, with or without support legs

Note 1 to entry: A floor standing changing unit for which the manufacturer recommends an additional fixation to a wall is not considered to be a wall mounted changing unit

### 3.4

#### **changing board flap**

changing surface that is movable or removable for storage purposes or to provide access to another function, e.g. a bathtub

### 3.5

#### **changing pad**

pad with side barriers specifically designed for the purpose of changing the child

Note 1 to entry: flat mats and similar items without barriers intended only to offer hygienic protection or comfort during changing are not included in the definition.

Note 2 to entry: outer rims of a pad are considered as barriers if the thickness of the rim is greater than the thickness of the changing surface

### 3.6

#### **changing unit accessory**

accessory that attaches to another product (e.g. cot, etc.) designed to enable the product to be used as a changing unit

### 3.7

#### **locking mechanism**

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

### 3.8

#### **locking device**

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

### 3.9

#### **operating device**

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

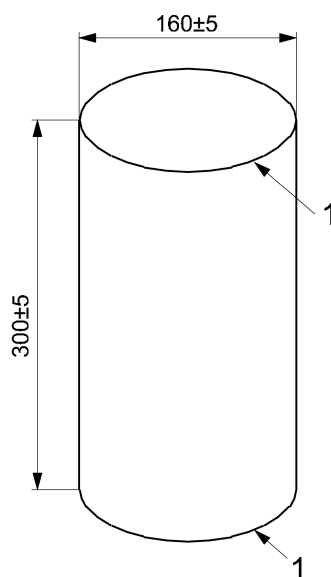
## 4 Test equipment

### 4.1 Test mass A

Test mass A is a rigid cylinder ( $160 \pm 5$ ) mm in diameter and ( $300 \pm 5$ ) mm in height, having a mass of  $9_0^{+0,1}$  kg and with its centre of gravity in the centre of the cylinder. All edges shall have a radius of ( $5 \pm 1$ ) mm (see Figure 1).

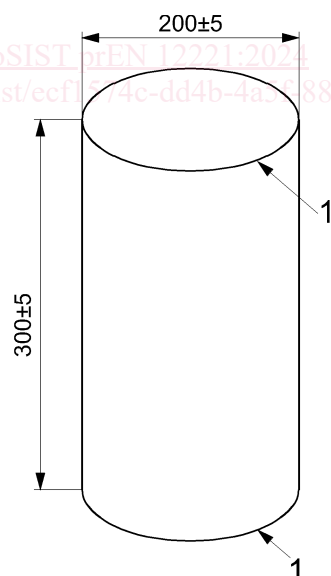


Dimensions in millimetres

**Key**1 radius:  $(5 \pm 1)$  mm**Figure 1 — Test mass A****4.2 Test mass B**

Test mass B is a rigid cylinder  $(200 \pm 5)$  mm in diameter and  $(300 \pm 5)$  mm in height, having a mass of  $15_0^{+0,1}$  kg and with its centre of gravity in the centre of the cylinder. All edges shall have a radius of  $(5 \pm 1)$  mm (see Figure 2).

Dimensions in millimetres

**Key**1 radius:  $(5 \pm 1)$  mm**Figure 2 — Test mass B**

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## 4.3 Small parts cylinder

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

Dimension in millimetres

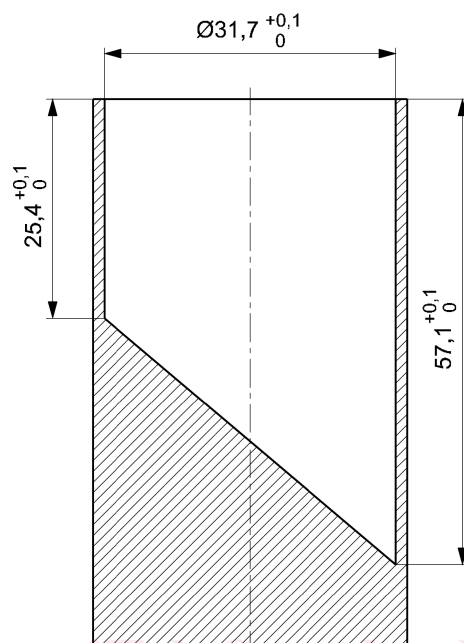


Figure 3 — Small parts cylinder

## 4.4 Feeler gauge

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

oSIST prEN 12221:2024 Dimensions in millimetres  
<https://standards.iteh.ai/catalog/standards/sist/ecf1574c-dd4b-4a5f-88dc-6f13e7df6416/osist-pren-12221-2024>

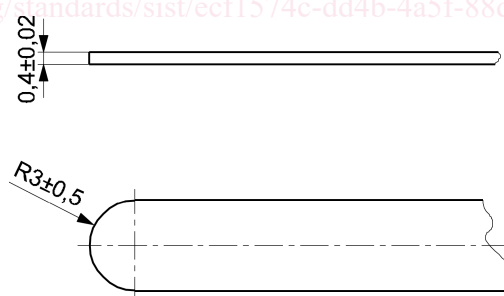


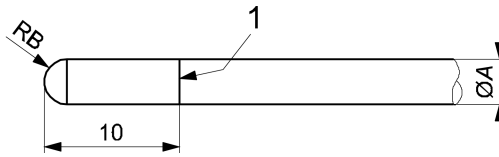
Figure 4 — Feeler gauge

## 4.5 Test probes for finger entrapment

## 4.5.1 Test probes with hemispherical end

Probes made from plastic or other hard, smooth material of diameters  $7_{-0,1}^0$  mm and  $12_{0}^{+0,1}$  mm with a full hemispherical end that can be mounted on a force-measuring device, see Figure 5.

Dimensions in millimetres

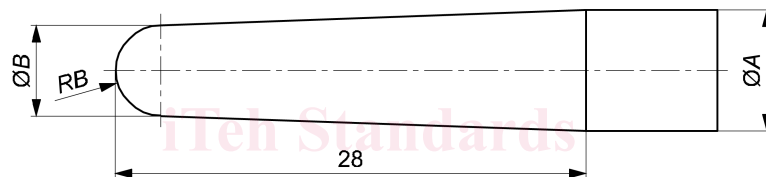
**Key**

Probe type	7 mm probe	12 mm probe
Diameter A	$7_{-0,1}^0$	$12_{0}^{+0,1}$
Radius RB	Half of diameter A	Half of diameter A
1	Line ascribed around circumference showing depth of penetration	

**Figure 5 — Test probes with hemispherical end****4.5.2 Test probe for mesh**

Mesh probe made from plastic or other hard, smooth material as shown in Figure 6.

Dimensions in millimetres

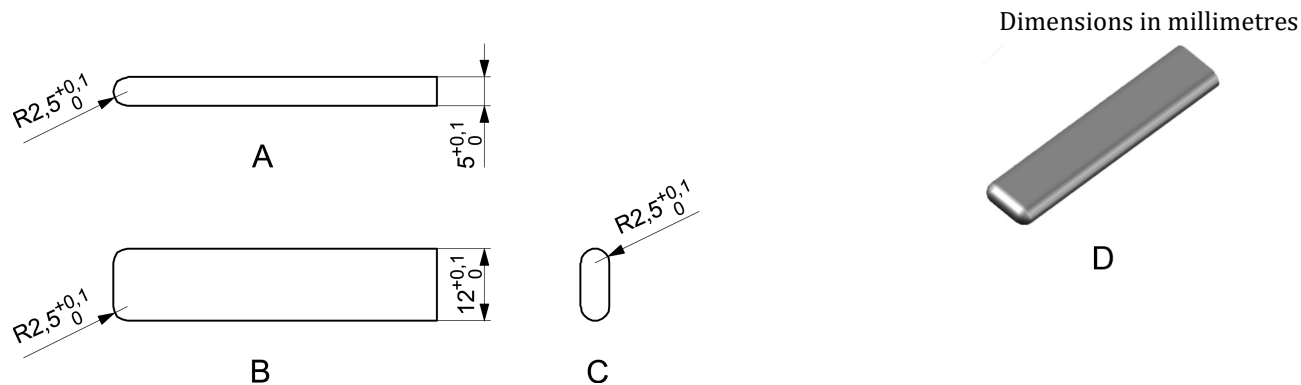
**Key**

Probe type	mesh probe
Diameter A	$7_{-0,1}^0$ mm
Diameter B	$5,6_{-0,1}^0$ mm
Radius RB	half of diameter B

**Figure 6 — Test probe for mesh****4.5.3 Shape assessment probe**

Probe made from plastic or other hard, smooth material with the dimensions shown in Figure 7.

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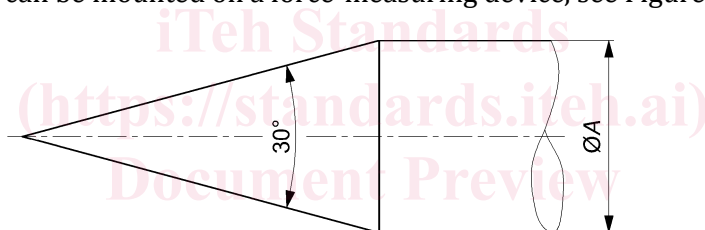
**Key**

- A front view
- B top view
- C side view
- D 3D view

**Figure 7 — Shape assessment probe**

**4.6 Test probes for limb entrapment**

Probes made from plastic or other hard, smooth material of diameters  $25_{-0,1}^0$  mm,  $45_{-0,1}^{+0,1}$  mm and  $65_{-0,1}^0$  mm with a conical end that can be mounted on a force-measuring device, see Figure 8.



**Key**

Probe type	25 mm probe	45 mm probe	65 mm probe
Diameter	$25_{-0,1}^0$ mm	$45_{-0,1}^{+0,1}$ mm	$65_{-0,1}^0$ mm
A			

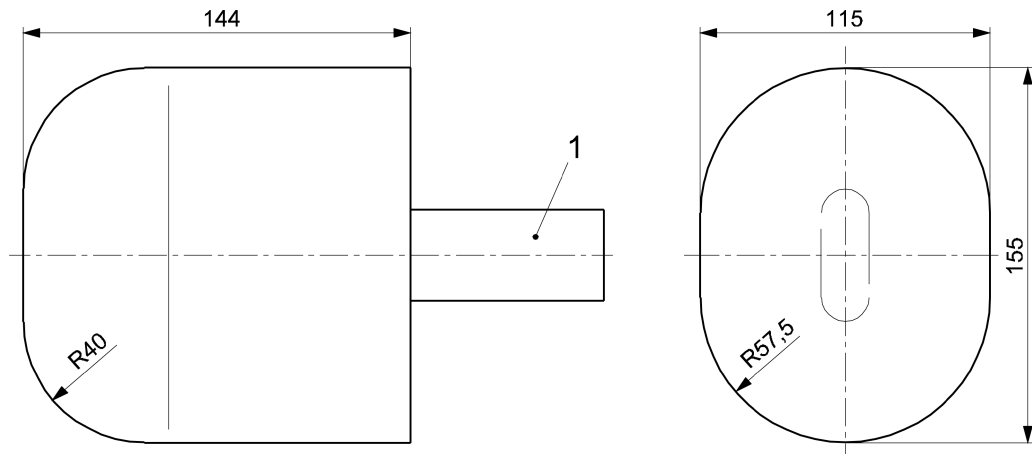
**Figure 8 — Test probes with conical end**

**4.7 Test probes for head entrapment**

**4.7.1 Small head probe**

Probe made of hard and smooth material with dimensions as shown in Figure 9.

Dimensions in millimetres

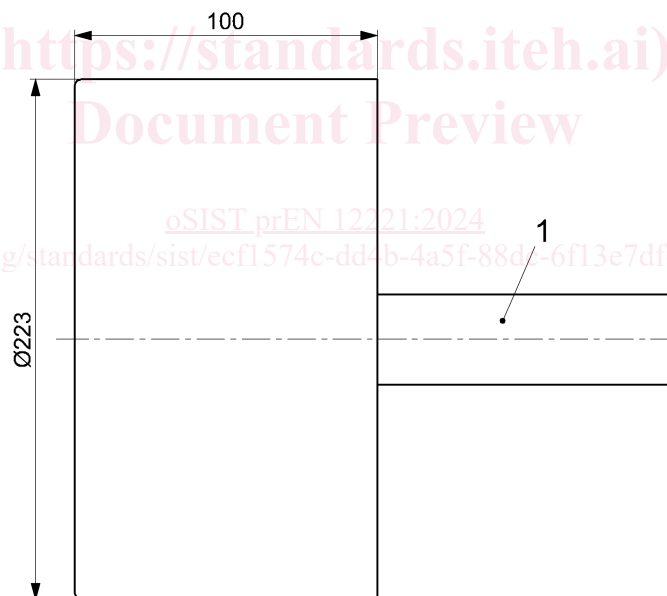
**Key**

1 handle

**Figure 9 — Small head probe****4.7.2 Large head probe**

Probe made of hard and smooth material with dimensions as shown in Figure 10.

Dimensions in millimetres

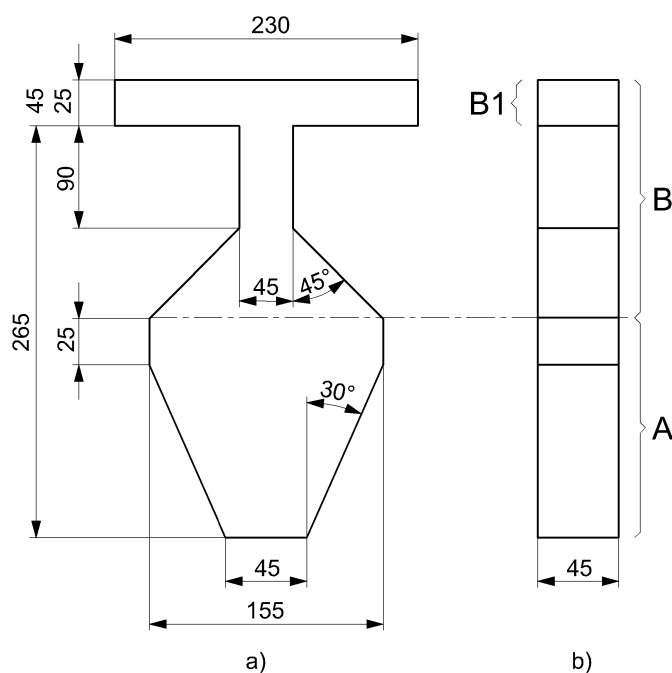
**Key**

1 handle

**Figure 10 — Large head probe****4.7.3 Template for partially bound and V shaped openings**

Probe made of hard and smooth material with dimensions as shown in Figure 11.

Dimensions in millimetres



a) Front view

b) Side view

**Key**

A A Portion

B B Portion

**Figure 11 — Template for partially bound and V shaped openings****4.8 Test floor for floor standing units**

The test floor shall be horizontal, rigid, flat and smooth.

**4.9 Test wall for wall mounted changing units**

The test wall shall be vertical, rigid, flat and smooth.

**4.10 Test base for bath mounted units**

Test base for bath mounted units represents the upper bath wall section made of hard and smooth material with dimensions in accordance with Figure 12. The profiles shall be fixed parallel to the distance equal to the minimum bath dimension recommended by the manufacturer.