SLOVENSKI STANDARD
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Izdelki za otroke - Kopalni pripomočki - Varnostne zahteve in preskusne metode

Child care articles - Bathing aids - Safety requirements and test methods

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97.190 Otroška oprema Equipment for children

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English Version

Child care articles - Bathing aids - Safety requirements and test methods

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

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European foreword

This document (prEN 17022:2016) has been prepared by 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.

1 Scope

This European Standard specifies safety requirements and test methods for stand-alone bathing aids.

This European Standard does not cover bathing aids and bath rings designed for children with special needs.

NOTE 1 Non stand-alone bathing aids that are intended to be used in conjunction with a child's bath tub are covered in WI 00252100, *Child use and care articles - Bath tubs for children*.

NOTE 2 If the product has several functions or can be converted into another function, the relevant European Standards apply.

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.

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

EN ISO 291, *Plastics - Standard atmospheres for conditioning and testing (ISO 291)*

ISO 188, *Rubber, vulcanized or thermoplastic - Accelerated ageing and heat resistance tests*

ISO 7619-2, *Rubber, vulcanized or thermoplastic - Determination of indentation hardness - Part 2: IRHD pocket meter method*

3 Terms and definitions

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

3.1
stand-alone bathing aid
product, intended to be used during the bathing of a child, that does not require a child's bath tub to be used and that does not provide containment of water by itself

3.2
bath cradle
stand-alone bathing aid intended to keep a child in a reclined or lying position during bathing

Note 1 to entry: These products are intended for use from birth and until the child is able to sit upright unassisted.

3.3
bath seat
stand-alone bathing aid intended to keep a child in a seated position during bathing

Note 1 to entry: These products are intended for use with a child who is able to sit upright unassisted and until the child begins pulling up to a standing position.

3.4
attachment device
device to secure the product to the bath tub (e.g. the suction cup or another device)

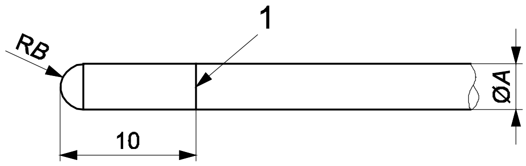
4 Test equipment

4.1 Test probes for finger entrapment

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

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

Dimensions in millimetres



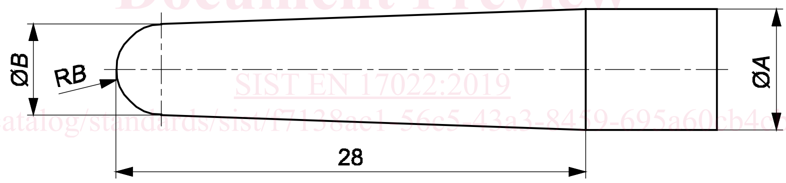
Key

1 line scribed around circumference showing depth of penetration

Probe type	**7mm probe**	**12mm 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



Key

Probe type	**Mesh probe**
Diameter A	$7^{0}_{-0,1}$
Diameter B	$5,6^{0}_{-0,1}$
Radius RB	2,8

Figure 2 — Test probe for mesh

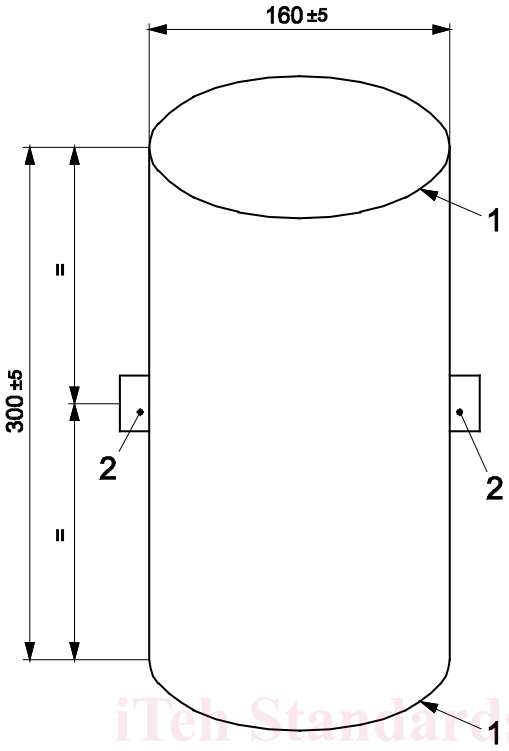
4.2 Test masses

4.2.1 Test mass A

A rigid cylinder (160 ± 5) mm in diameter and (300 ± 5) mm in height, having a mass of 9 kg and with its centre of gravity in the centre of the cylinder. All edges shall have a radius of (5 ± 1) mm. Two

anchorage points shall be provided. These shall be positioned (150 ± 2,5) mm from the base and at 180° to each other around the circumference (Figure 3).

Dimensions in millimetres



Key

1 radius: (5 ± 1) mm

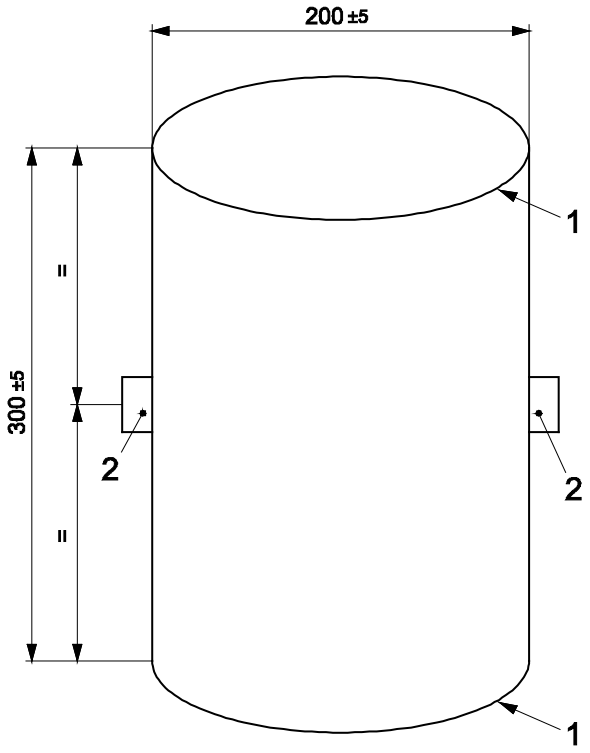
2 two anchorage points

Figure 3 — Test mass A

4.2.2 Test mass B

A rigid cylinder (200 ± 5) mm in diameter and (300 ± 5) mm in height, having a mass of 15 kg and with its centre of gravity in the centre of the cylinder. All edges shall have a radius of (5 ± 1) mm. Two anchorage points shall be provided. These shall be positioned (150 ± 2,5) mm from the base and at 180° to each other around the circumference (Figure 4).

Dimensions in millimetres



Key

1 radius: (5 ± 1) mm

2 two anchorage points

Figure 4 — Test mass B

4.3 Small parts cylinder

Cylinder for the assessment of small components, having dimensions in accordance with Figure 5.

Dimension in millimetres

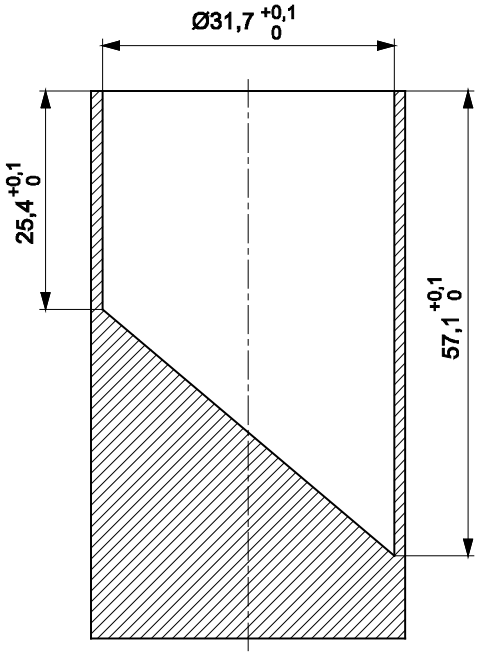


Figure 5 — Small parts cylinder

4.4 Feeler gauge

Gauge with a thickness of (0,4 ± 0,02) mm and an insertion edge radius of (3 ± 0,5) mm (Figure 6).

Dimensions in millimetres

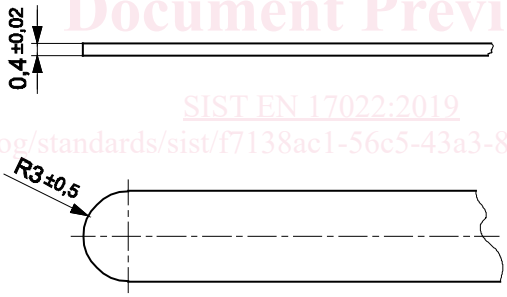


Figure 6 — Feeler gauge

4.5 Test glass surface

A rigid plane covered with uncoated tempered float glass that has a smooth surface and thickness of 6 mm.

4.6 Test surface for drop test

A 4 mm thick steel plate with a 2 mm thick rubber mat, with hardness (75 ± 10) IRHD according to ISO 7619-2, and which is placed on a non-flexible horizontal surface.

4.7 Test bar

Square aluminium tube with sides 16 mm ± 1 mm, thickness 1,30 mm ± 0,5 mm and length 600 mm ± 5 mm.

5 General requirements

5.1 Product conditioning

Products containing vulcanized rubber and thermoplastic elastomer parts (but not silicone parts) shall be artificially aged for seven days in an aerated drying cabinet at a temperature of (70 ± 2) °C (as described in ISO 188).

All products shall be conditioned for at least 40 h, in a standard atmosphere (as described in EN ISO 291) at a temperature of (23 ± 2) °C and relative humidity of (50 ± 5) %.

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 a product that is fully assembled according to the manufacturer's instructions and ready for use.

If the instructions allow for different adjustments or configurations of components, the most onerous combination shall be used for each test, unless otherwise specified in the test method.

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 7 shall be assessed on the same product in the order listed in this standard.

6 Chemical hazards

Migration of certain elements (A.2)

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

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

A separate sample may be used for these tests.