



SLOVENSKI STANDARD
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Child care articles - Wheeled child conveyances - Safety requirements and test methods

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Artikel für Säuglinge und Kleinkinder - Transportmittel für Rädern auf Kinder -
Sicherheitstechnische Anforderungen und Prüfungen

Articles de puériculture - Voitures d'enfant - Exigences de sécurité et méthodes d'essai

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Child care articles - Wheeled child conveyances - Safety requirements and test methods

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Artikel für Säuglinge und Kleinkinder - Transportmittel auf Rädern für Kinder - Sicherheitstechnische Anforderungen und Prüfungen

This European Standard was approved by CEN on 1 August 2002.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This document EN 1888:2003 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of an identical text or by endorsement, at the latest by August 2003, and conflicting national standards shall be withdrawn at the latest by August 2003.

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

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

This document is currently submitted for a second Formal Vote.

In this document Annexes A and B are informative.

Requirements for :

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- effectiveness of integral restraint systems

- variants of wheeled child conveyances

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- additional entrapment hazards

have been prepared within CEN/TC 252/WG 3 and will be incorporated by amendments in this European Standard.

The amendments cover the following :

- amendment 1 : effectiveness of restraint

- amendment 2 : jogger type pushchairs, new types of seat units, pushchairs fitted with a platform, baby carriers fitted with wheels, handle strength test

- amendment 3 : attachment of textile parts with child retention purposes, head entrapment between the handle and the end of pram bodies

1 Scope

This European Standard specifies the safety requirements and test methods for wheeled child conveyances designed for the carriage of one or more children.

This European Standard does not cover toy pushchairs or perambulators and wheeled conveyances designed for children with special needs.

Any relevant European Standards are applicable for any other functions of the product.

2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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

EN 71-2:1993, *Safety of toys - Part 2 : Flammability.*

EN 71-3:1994, *Safety of toys - Part 3 : Migration of certain elements.*

EN ISO/IEC 17025:2000, *General requirements for the competence of testing and calibration (ISO/IEC 17025:1999).*

3 Terms and definitions

For the purposes of this European Standard the following terms and definitions apply.

3.1

wheeled child conveyance

vehicle designed for the carriage of one or more children which can be pushed or steered manually

NOTE 1 Referred to as the "vehicle" for the purpose of this standard.

NOTE 2 The term "wheeled child conveyances" is intended to cover the whole range of vehicles currently available or likely to be developed and includes perambulators, pushchairs, convertibles, combination pushchairs and the like.

3.2

pram body

structure with nominally vertical and continuous sides and ends with an internal base, designed to transport one or more children primarily in a horizontal position

3.3

seat unit

structure which may or may not be adjustable to achieve a reclining or recumbent position, designed to support one or more children

3.4

chassis

wheeled framework with an extended handle or handles for pushing and steering, designed to accommodate and transport a pram body(ies) and/or seat unit(s)

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3.5

pram

vehicle comprising a chassis and one or more pram bodies

NOTE For the purposes of this standard the words "perambulator" and "pram" are synonymous.

3.6

pushchair

vehicle comprising a chassis and one or more seat units

3.7

convertible

vehicle combining the possibility of two uses ; achieved by the pram body transforming into a seat unit and vice versa

3.8

combination pushchair

a vehicle combining the possibility of various uses by attaching a pram body, a seat unit, a car seat or similar item to the chassis

3.9

access zone

space around the child (children) for which safety requirements are prescribed, with the dimensions shown in Figure 1.

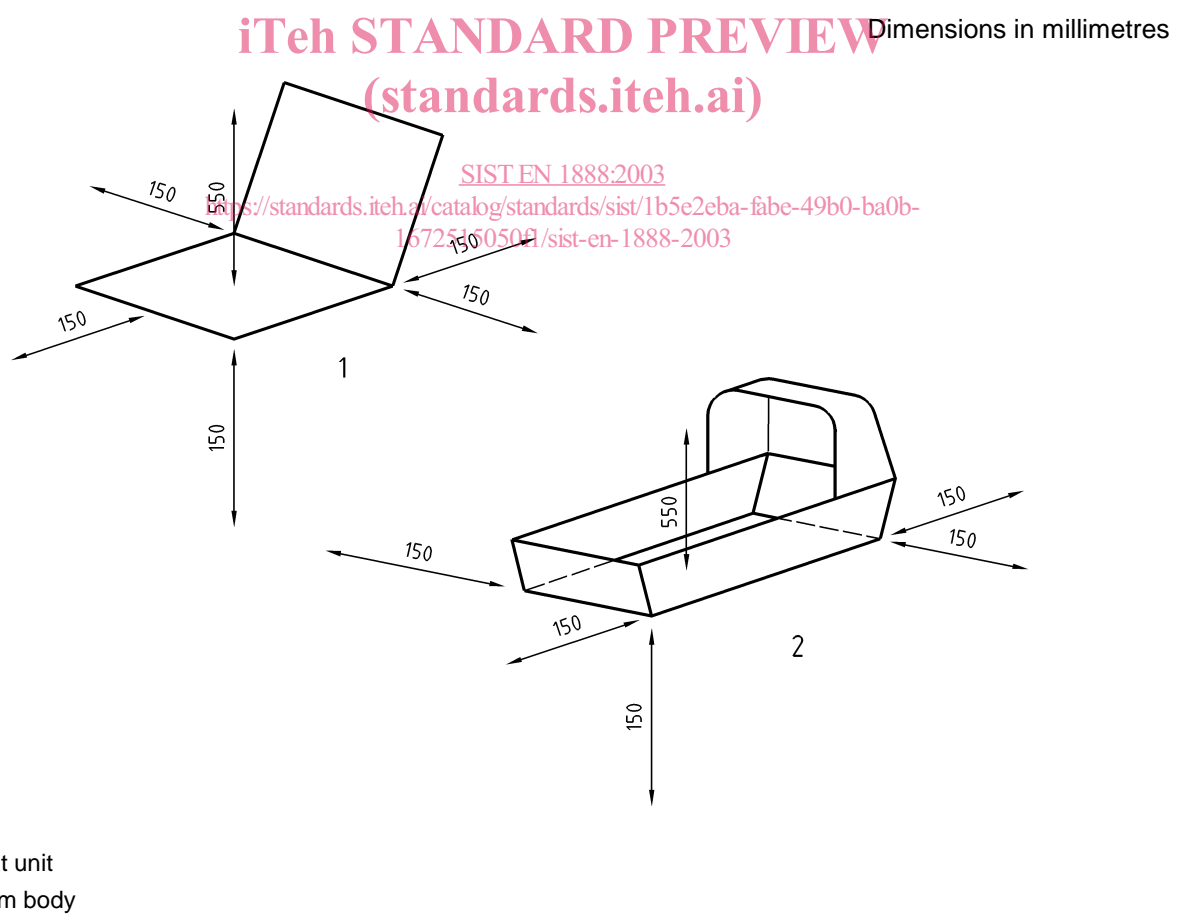


Figure 1 - Access zone

3.10**parking device**

device to maintain the vehicle in a stationary position

3.11**locking device for the folding mechanism**

device to prevent unintentional folding

3.12**restraint system**

system to restrain the child within the vehicle

3.13**waist belt**

strap, which when fastened, surrounds the child's waist

3.14**crotch strap**

strap designed to be used in conjunction with the waist belt and which passes between the child's legs to prevent the child from sliding forward

3.15**harness**

additional restraining device comprising a waist belt and straps

3.16**integral harness**

device comprising either a crotch strap, waist strap and shoulder straps, or straps that pass over the child's shoulders and between the child's legs

3.17**basket**

receptacle designed for carrying additional load(s) on the vehicle

NOTE 1 This excludes small pockets fitted onto textile parts.

NOTE 2 For the purpose of this standard, the term "basket" covers also shopping tray and bag.

4 General requirements and test conditions

4.1 Samples

Tests shall be conducted on one chassis unless otherwise indicated.

Vehicles with multiple places for pram bodies and/or seat units shall comply with all applicable requirements in any possible arrangement. If a vehicle can be equipped with an additional seat unit or the manufacturer recommends such a seat unit for the vehicle, it shall conform to this standard.

4.2 Order of tests

Table 1 defines the order of tests :

Table 1 – Order of tests

Sequence number of test, <i>N</i>	Clauses	Test
1.1	5.3	Shrinkage
1.2	6	Construction
2.1	10.2	Parking device, tests (except 10.2.7 Abrasion)
2.2	13.2	Carrying handles and handle anchoring points
2.3	7.2	Stability
2.0	11.2	Locking devices for the folding mechanism, tests
2.0	14.2	Strength and durability of attachment devices for pram body or seat unit
2.0	15.2	Restraint system and fasteners
3.1	17.3	Irregular surface test
3.2	10.2.7	Abrasion conditioning
4.1	10.1	Parking devices, requirements
4.2	11.1	Locking devices for the folding mechanism, requirements
4.3	18.2	Dynamic strength
4.4	7.1	Stability, requirements
4.0	16.2	Wheel strength
4.0	8.2	Pushchairs with rotating seat units
4.0	9.2	Handle
5.1	6	Construction (repeat)
0	5	Materials (separate samples may be used)
0	12.2	Longitudinal stability of a pram body with carrying handles
0	19	Durability of marking (same sample as used for materials)

The tests shall be carried out according to their sequence number (*N*), e.g. 1.1, 1.2, etc. (see Table 1). When two or more tests have the same sequence number, then the tests can be carried out in any order. When the sequence number of the test, *N*, has a value of 0, this means that the test's order has no influence in the considered sequence ; thus the test can be carried out in any order in this sequence.

4.3 Principle of the most onerous condition

Each test shall be conducted with the vehicle in the most onerous condition for that test in terms of :

- the choice and number of seat units and/or pram bodies attached to the chassis ;
- the addition of any additional seat units approved by the manufacturer ;
- the use of test mass A or B (see Figures 2 and 3) in each place that a child can occupy (at least one test mass shall be used in one place) ;

- the addition (or not) of any basket for carrying additional load(s) allowed for in the instructions or otherwise approved by the manufacturer and the placing (or not) of load(s) in any such facility, up to the maximum mass allowed in the manufacturer's instructions, but not less than 2 kg ;
- the addition (or not) of any other accessories supplied for use with the vehicle ;
- the adjustment of seat units, handles and any other adjustable features or accessories, or any other optional arrangement of the vehicle allowed in the manufacturer's instructions or otherwise approved by the manufacturer.

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

4.4 Tolerances and test conditions

Unless otherwise specified, all forces shall be measured to a limit deviation of $\pm 5\%$, all masses to a limit deviation of $\pm 1\%$, all angles to a limit deviation of $\pm 1^\circ$ and all dimensions to a limit deviation of $\pm 0,5$ mm. These tolerances are applicable only to the equipment used for the tests.

The vehicle shall be conditioned at a temperature of (23 ± 5) °C for at least 2 h prior to tests. All tests shall be carried out at a temperature of (23 ± 10) °C unless otherwise specified.

4.5 Test equipment

4.5.1 Application of test forces

Unless otherwise specified, the test forces shall be applied by any device normally used.

4.5.2 Test masses

4.5.2.1 General <https://standards.iteh.ai/catalog/standards/sist/1b5e2eba-fabe-49b0-ba0b-1672515050f1/sist-en-1888-2003>

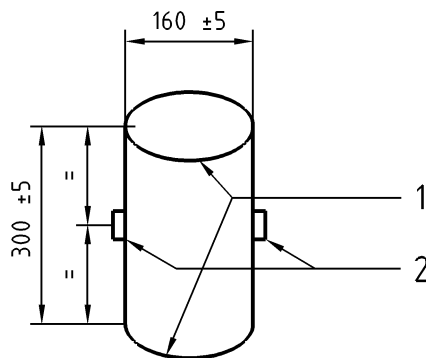
Unless otherwise specified, the test masses shall be those given in 4.5.2.2, 4.5.2.3 and 4.5.2.4.

Damage to fabric may occur as a result of abrasion by the test masses during tests. This damage should be ignored. Damage can be minimized by using a convenient means of negligible mass. Where seat damage is not caused by abrasion it constitutes a structural failure.

4.5.2.2 Test mass A

Test mass A is a rigid cylinder (160 ± 5) mm in diameter and (300 ± 5) mm in height, having a mass of $(9^{+0,01}_0)$ 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, positioned $(150 \pm 2,5)$ mm from the base and at 180° to each other around the circumference (see Figure 2).

Dimensions in millimetres

**Key**

- 1 radius : (5 ± 1) mm
- 2 two anchorage points

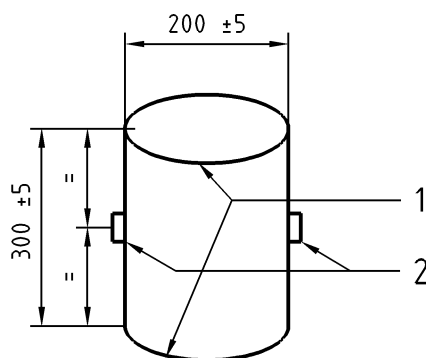
Figure 2 - Test mass A

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4.5.2.3 Test mass B

Test mass B is a rigid cylinder (200 ± 5) mm in diameter and (300 ± 5) mm in height, having a mass of $(15^{+0,01}_0)$ 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, positioned $(150 \pm 2,5)$ mm from the base and at 180° to each other around the circumference (see Figure 3).

Dimensions in millimetres

**Key**

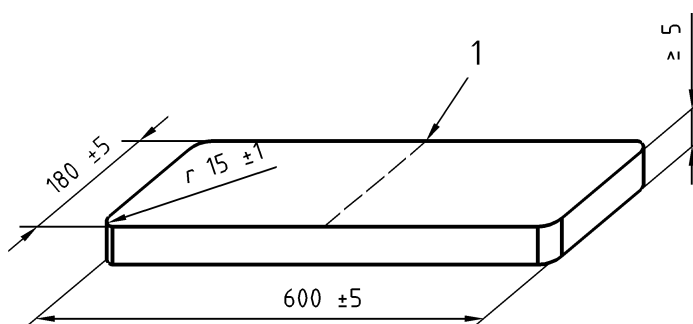
- 1 radius : (5 ± 1) mm
- 2 two anchorage points

Figure 3 - Test mass B

4.5.2.4 Test mass C

Test mass C is a rigid plate (600 ± 5) mm long and (180 ± 5) mm wide, having a minimum thickness of 5 mm and a mass of ($9^{+0.01}_0$) kg hinged along the centre line. All corners shall have a radius of (15 ± 1) mm (see Figure 4).

Dimensions in millimetres



Key :

1 Hinge line

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Figure 4 - Test mass C

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5 Materials

5.1 Chemical properties

Within the access zone, all surfaces of materials i.e. the parts of the article which are painted, varnished, lacquered or coated with similar substances, the parts consisting of materials integral with the structure and the parts consisting of textiles shall be made using products, which in their soluble or soluble compound state have a content not exceeding the following :

- Antimony : 60 mg/kg ;
- Arsenic : 25 mg/kg ;
- Barium : 1 000 mg/kg ;
- Cadmium : 75 mg/kg ;
- Chromium : 60 mg/kg ;
- Lead : 90 mg/kg ;
- Mercury : 60 mg/kg ;
- Selenium : 500 mg/kg.