BRITISH STANDARD

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Child use and care articles — Baby bouncers — Safety requirements and test methods

The European Standard EN 14036:2003 has the status of a British Standard

ICS 97.190

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National foreword

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Articles de puériculture - Nacelles à oscillation verticale - Exigences de sécurité et méthodes d'essais

Artikel für Säuglinge und Kleinkinder - Kinderhüpfsitze (Hopser) - Sicherheitstechnicshe Anforderungen und Prüfverfahren

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

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Foreword

This document EN 14036:2003 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of an identical text or by endorsement, at the latest by March 2004, and conflicting national standards shall be withdrawn at the latest by March 2004.

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

Any possible risks associated with attachment devices for fixing baby bouncers to doorframes are not included in the requirements of EN 14036.

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, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This European Standard specifies the minimum safety requirements and test methods for vertically suspended baby bouncers for domestic use, for children who can support their head unaided and up to a maximum weight of 12 kg.

This standard does not include products that allow the child to lay down such as vertically suspended moses baskets and carrycots.

This standard does not include baby bouncers designed for children with special needs.

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 *Safety of toys – Part 1: Mechanical and physical properties.*

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

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

3 Terms and definitions

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

3.1
baby bouncer
product designed to suspend a child in an essentially vertical position which enables the child's toes/balls of the feet to have contact with the floor to activate and maintain the bouncing action

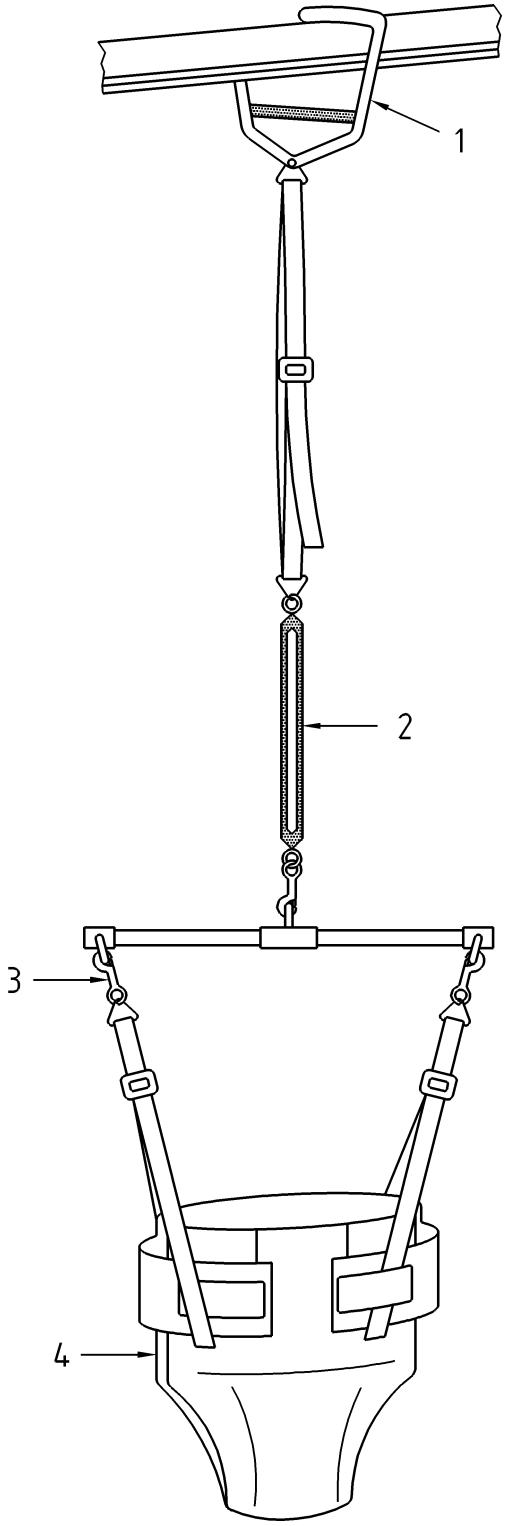
3.2
attachment device
device for attaching the suspension system to a supporting structure

3.3
suspension system
device which is designed to enable the product to bounce vertically

3.4
child support system
part of the baby bouncer in which the child is placed

3.5
child support suspension system
mechanism for the attachment of the child support system to the suspension system

3.6
frame
free standing structure to support the baby bouncer



Key

1 Attachment device
2 Suspension system
3 Child support suspension system
4 Child support system

Figure 1 – Example of an assembled baby bouncer

4 Properties of materials

4.1 Chemical properties

Any coating of paint, varnish, lacquer or similar substances and parts consisting of dyed materials, leather and textiles shall be made using products which in their soluble compound do not exceed the following amounts :

— Antimony : 60 mg/kg

— Arsenic : 25 mg/kg

— Barium : 1000 mg/kg

— Cadmium : 75 mg/kg

— Chromium : 60 mg/kg

— Lead : 90 mg/kg

— Mercury : 60 mg/kg

— Selenium : 500 mg/kg

Where a surface is coated with a multi-layer paint or similar coating, the sample shall be taken down to the substrate.

The test procedure is defined in EN 71-3.

4.2 Flammability

There shall be no part of the baby bouncer that can give rise to surface flash when tested in accordance with EN 71-2 before and after conditioning in accordance with 6.2.

5 Construction

5.1 Child support system

The child support system shall be capable of being fitted around the child's torso.

5.2 Dimensions

5.2.1 In order to prevent the child falling out of the baby bouncer the minimum height of the sides of the child support system shall be 200 mm when measured in accordance with 7.1.

5.2.2 In order to prevent strangulation the maximum height at the front of the child support system shall be 250 mm when measured in accordance with 7.1.

5.3 Entanglement hazard

5.3.1 Cords and ribbons used as ties

The free length of cords and ribbons used as ties, shall not exceed 220 mm when tested in accordance with 7.2.

5.4 Choking and suffocation hazards

5.4.1 Small parts

In order to avoid ingestion or inhalation of small objects, components intended to be detached by the child shall not, whatever their position, fit wholly within the cylinder specified in EN 71-1.

Non-detachable components, parts which are not intended to be removed, shall comply with one of the following :

a) the components shall either be fixed to the product that they cannot become detached when tested in accordance with the torque and tension tests in 7.3, or

b) any component which becomes detached when tested shall not fit wholly within the cylinder specified in EN 71-1.

5.4.2 Plastic decals

Plastic decals or parts of plastic decals shall not become detached or be removable by hand, when tested in accordance with 7.4.1 and 7.4.2.

5.5 Edges, projections and corners

In order to avoid lacerations or abrasions, surfaces shall be smooth and free from burrs.

Edges and corners in frequent body contact shall be rounded and/or chamfered in the manner of one of the examples given in Figure 2. This requirement is applied to edges and corners where the internal angle is less than 120° and is formed by rigid materials which, during normal use the child would have contact with when leaning, pressing or rubbing against an edge or corner.

All other corners and edges shall be chamfered or rounded.

Any cover applied in order to meet the above shall comply with the requirements for protective components specified in EN 71-1.

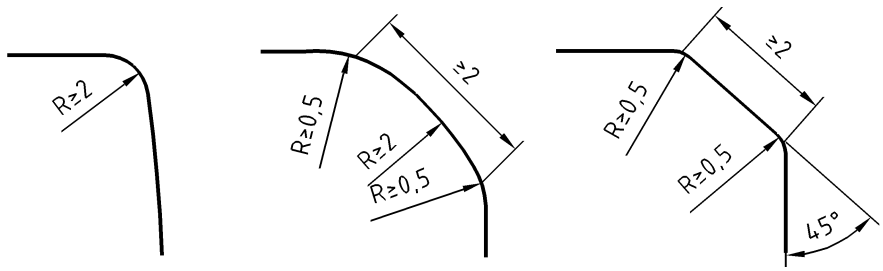


Figure 2 - Examples for minimum radii of edges and corners

The minimum radii shown in Figure 2 does not apply to small components such as hinges, brackets and catches.

5.6 Moving parts

5.6.1 General

To avoid shear and crushing points gaps between rigid moving parts within the child support system that move relative to each other shall always be greater than 12 mm or less than 5 mm.

NOTE Unavoidable shear and crushing points that are created only when setting up or folding by the carer are acceptable because the carer can be assumed to be in control of its movements.

5.6.2 Child support suspension system

5.6.2.1 Child support suspension system

Suspension system cords shall have a minimum diameter of 10 mm or a minimum width of 20 mm.

5.6.2.2 Any rotation of the child support suspension system shall not give rise to any closure or any gaps within the cords/ropes or straps of the system.

5.6.2.3 Suspension system

Gaps between two consecutive turns of exposed extension helical springs shall not be greater than 3 mm when the spring is extended with a 15 kg mass and shall be not greater than 5 mm when the spring is extended with a 66 kg mass.

5.6.3 Locking mechanisms on frames

When the baby bouncer and any frame is assembled in accordance with the manufacturer's instructions, locking mechanisms shall be considered as inoperable by a child if at least one of the following conditions is fulfilled :

a) folding or detachment is only possible when two independent locking mechanisms are operated simultaneously ; or

b) release of the locking mechanisms requires a 50 N force or requires the use of a tool (e.g. spanner or screwdriver) ; or

c) release of the locking mechanisms require two consecutive actions, the first of which shall be maintained while the second is carried out.

5.7 Stability of frame

When tested in accordance with 7.5 the part of the frame in contact with the floor shall not move more than 10 mm from its original position and the frame shall not overturn.

5.8 Static strength

When tested in accordance with 7.6, the baby bouncer shall not collapse and shall remain attached to the support beam or frame supplied and shall fulfil its functions.

Fittings and fastening devices shall not become detached and shall still function normally.

5.9 Drop strength

When tested in accordance with 7.7 the baby bouncer shall show no structural damage and shall remain attached to the support beam or frame and shall still function normally.

Fittings and fastening devices shall not become loosened or detached and still shall function normally.

5.10 Screw in hooks

Screw in suspension hooks shall be of a design that prevents unintentional disconnection (e.g. wound over at least 540º or of a spring-hook).

6 General test conditions

6.1 Tolerances

Unless otherwise stated, according to the accuracy of measurement devices shall have a tolerance as follows:

— Forces ± 5 %

— masses ± 0,5 %

— dimensions ± 0,5 mm

— all angles ± 1°

6.2 Order of tests

Unless specified the order of testing shall be carried out in the order of the clause numbers of this standard.

Additional samples may be used when doing the following tests :

— 4.1 Chemical properties

— 4.2 Flammability

6.3 Conditioning

6.3.1 Clean/wash and dry any fabrics twice in accordance with the manufacturer's instructions.

6.3.2 When testing in accordance with 7.6 and 7.7, fit and remove the attachment device from the support beam (fig 3) 10 times.

Screw in hooks are excluded from this requirement.

7 Test methods

7.1 Measurement of child support system

7.1.1 Apparatus

A rigid cylinder (120 ± 5) mm in diameter and (180 ± 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.

7.1.2 Test method

Suspend the baby bouncer from the support beam (7.6.1) in the normal position of use and place the 9 kg dummy (7.1.1) in the baby bouncer and ensure it is in a vertical position. Measure the minimum height of the sides and front.

7.2 Test for entanglement - cords, and ribbons used as ties

The free length of cord shall be measured from the fixing point to the end of the cord or to the fixing point of the other part of the product when stretched by a 25 N force. If the fixing point has the same shape or form as the cord, then this part shall be measured as part of the entire.

7.3 Test for small parts

7.3.1 Tensile test

Apply a tensile force to the component to be tested through a clamp or by other suitable means. Gradually apply a force of up to 90 N over 5 s and maintain for 10 s. If a component becomes detached, check whether the component fits wholly within the cylinder as defined in EN 71-1.

Parts that clearly do not fit fully in the cylinder shall not be tested.

7.3.2 Torque test

If the component can be gripped between thumb and forefinger, apply a torque gradually to the component within a period of 5 s in a clockwise direction until either a rotation of 180º from the original position has been obtained, or a torque of 0,34 Nm is reached. Maintain the maximum rotation or required torques for 10 s. Allow the test component to return to a relaxed condition. Repeat this procedure in an anti-clockwise direction.

Projections, parts or assemblies that are rigidly mounted on an accessible rod or shaft designed to rotate together with the projections, parts or assemblies shall be tested with the rod or clamp to prevent rotation.

If a component, which is attached by a screw, becomes loosened during the application of the required torque, continue to apply the torque until the required torque is exceeded or the part disassembles or it becomes apparent that the part will not disassemble.

7.4 Test for decals

7.4.1 Soaking test

Submerge the baby bouncer or the area to be tested completely in a container of demineralised water at a temperature of 20 ºC ± 5 ºC for 4 min ± 10 s. Remove the product, shake off excess water and keep the product in the temperature for 10 min ± 30 s.

Carry out the cycle four times.

Immediately after the last cycle, examine if any object released fit entirely within the cylinder specified in EN 71-1.

7.4.2 Adhesion test

Apply the test as specified in 7.4.1 and using a force of (10 N ± 1 N) insert the feeler gauge between components and the underlying layer or body of the product at any angle between 0° and 10° from the product surface. Examine if the gauge is inserted more than 2 mm.

Carry out the test 30 times. After that, perform the tension test.

7.5 Test for stability of the frame

Place the 15 kg test mass as described in 7.7.1 in the child support system and support it with a negligible mass. Move the child support system to an angle of 45º ± 5º from the vertical and release. Allow the baby bouncer to come to rest. Carry out the test in the most onerous direction.

7.6 Static strength test

7.6.1 Apparatus

Horizontal support beam of a smooth hard surface made of wood or any other suitable material and with the dimensions stated in Figure 3.

Dimensions in millimetres

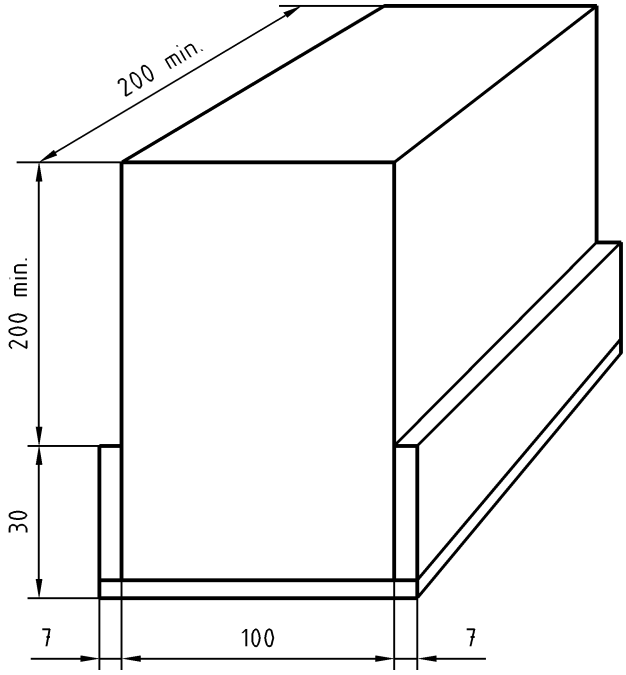


Figure 3 - Support beam

7.6.2 Test method

Position the baby bouncer on the support beam (7.6.1) or if it is supplied with its own support frame assemble in accordance with manufacturer's instructions. Ensure that during the test no part of the product which is supporting the test mass is in contact with the floor.

NOTE If the baby bouncer is supplied with its own support frame this can have to be elevated to allow the test to be carried out.

Position a bar of (50 ± 1) mm diameter through the leg openings and then load the ends symmetrical and to a total mass of 66 kg for a period of 1 h ± 1 min.

7.7 Drop strength

7.7.1 Test cylinder

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.

7.7.2 Test method

Position the baby bouncer on the support beam as in 7.6.1 or if it is supplied with its own support frame assemble in accordance with manufacturer's instructions. Place the 15kg (7.7.1) test cylinder centrally into the child support system in a vertical plane and if necessary secure into position using a material of negligible mass.

Raise the child support system and test cylinder to a height of 500 mm ± 10 mm from its lowest position when the mass has been applied. Allow the child support system and test cylinder to fall freely in an essentially vertical plane along the vertical centre line of the suspensions system. Allow it to bounce for a maximum of 10 s. Carry out the test for a total of 10 times.

8 Instructions for use

Instructions concerning the correct safe, use and assembly of the baby bouncer shall be provided in the official language of the country in which it is being sold.

These instructions shall be headed "**IMPORTANT ! KEEP FOR FUTURE REFERENCE"** in letters not less than 5 mm high.

The instructions shall include the following :

a) the name, registered trade name or trade mark of either the manufacturer, distributor or retailer ;

b) a means of identifying the product ;

c) cleaning, washing and drying instructions ;

d) instructions and diagrams illustrating the correct and safe means of assembly and use ;

e) a statement that only replacement parts supplied by the manufacturer should be used on the product ;

f) information concerning inspection and maintenance of the baby bouncer and the support frame;

g) WARNING ! NEVER LEAVE THE CHILD UNATTENDED !

h) WARNING ! DO NOT USE THE BABY BOUNCER AS A SWING !

i) WARNING ! ENSURE BABY BOUNCER IS POSITIONED CENTRALLY IN A DOOR FRAME

j) a statement, to ensure that the child is correctly and safely positioned in the seat of the baby bouncer ;

k) the age, weight and ability that the baby bouncer is designed for ;

l) a statement to make sure that the door cannot close on the baby bouncer ;

m) a recommendation of a time limit of a maximum of 20 min for the child to be in the baby bouncer ;

n) the thickness of the wall/door frame that the baby bouncer is designed for ;

o) a statement to be aware of the danger of allowing other children to play near the bouncer.

9 Purchase information

The following information shall be provided at the point of sale.

a) the baby bouncer is for a child able to support its head unaided up to a maximum weight of 12 kg ;

b) name and or trademark of the manufacturer, importer or distributor ;

c) number and date of this standard;

d) the suitability of the wall/door frame the baby bouncer is designed for.

10 Marking

10.1 Marking on the product

Baby bouncers that comply with this standard shall be permanently marked with the following :

a) the name or trade mark or other means of identification of either the manufacturer, retailer or distributor ;

b) the number and date of this European Standard ;

c) the identification of the model ;

d) WARNING ! NEVER LEAVE THE CHILD UNATTENDED !

10.2 Labels on the product

Any permanent labels shall be conspicuous and legible and labels shall be securely attached.

When tested in accordance with 10.3, it shall not be possible to remove any label or permanent marking, and labels shall show no signs of curling and the marking shall be legible.

10.3 Durability of marking

Any permanent marking or labels shall be rubbed by hand with a water damped cotton cloth for 20 s.

After the treatment the text shall still be clearly legible.

11 Packaging

Packaging shall conform to the following requirements:

a) bags made of flexible plastics, with an opening perimeter greater than 380 mm used for external or internal packaging, shall have an average sheet thickness of not less than 0,038 mm.

b) bags made of flexible plastics with an opening perimeter greater than 380 mm shall not have a draw string or cord as a means of closing.

c) a WARNING statement ! KEEP PLASTIC COVERING AWAY FROM CHILDREN TO AVOID SUFFOCATION.

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