
**Furniture — Children's cots and
folding cots for domestic use —**

**Part 1:
Safety requirements**

*Ameublement — Lits fixes et lits pliants pour enfants à usage
domestique —*

Partie 1: Exigences de sécurité

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 136, *Furniture*.

This second edition cancels and replaces the first edition (ISO 7175-1:1997), which has been technically revised. The main changes compared to the previous edition are as follows:

- normative references have been added for flammability (ISO 8124-2:2014) and textile burning behaviour (EN 1103);
- more terms and definitions have been added.

A list of all parts in the ISO 7175 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document is based on EN 716-1:2017.

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Furniture — Children's cots and folding cots for domestic use —

Part 1: Safety requirements

1 Scope

This document specifies requirements for children's cots and folding cots for domestic use with an internal length of between 900 mm and 1 400 mm.

This document applies to cots that are fully assembled and ready for use.

NOTE It is possible that additional requirements be applied for cots that can be converted into other items (e.g. changing units, playpens).

This document does not apply to carry cots, cribs and cradles for which separate International Standards exist.

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.

ISO 7175-2:2019, *Children's cots and folding cots for domestic use — Part 2: Test methods*

ISO 8124-1, *Safety of toys — Part 1: Safety aspects related to mechanical and physical properties*

ISO 8124-2:2014, *Safety of toys — Part 2: Flammability*

ISO 8124-3, *Safety of toys — Part 3: Migration of certain elements*

EN 1103, *Textiles — Fabrics for apparel — Detailed procedure to determine the burning behaviour*

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:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

cot

bed for an infant or child which has a barrier surrounding the entire perimeter of the product during use

Note 1 to entry: Additional information on the background and rationale for this definition is given in [Annex A](#).

3.2

folding cot

cot (3.1) which can be dismantled or folded without the use of a tool for transportation

Note 1 to entry: This does not include items such as carry cots intended for transportation of infants.

Note 2 to entry: In some countries, "folding cots" are also called "travel cots".

3.3

locking system

mechanism that consists of a locking device and one or more operating devices, which can deactivate the locking device, e.g. by pushing a button, pressing a lever or turning a knob

Note 1 to entry: A locking device is a device intended to maintain the cot or parts of it in its/their intended position.

3.4

shear and squeeze point

gap which can cause harm to parts of the body and which occurs when two *accessible parts* (3.5) move relative to each other

3.5

accessible part

inside of the cot (3.1) and exterior of the cot 300 mm from the upper part of the rim (when a child's hand can neither reach through sides nor ends) or whole cot, except for the underside of the cot base (when a child's hand can reach through sides or ends)

3.6

mattress base

cot (3.1) base and mattress combined in one component

3.7

movable side

side that can be set in different positions, i.e. sliding side, drop side, folding side, etc.

4 Safety requirements

4.1 General

With the exception of the requirements specified in 4.2, the safety requirements in [Clause 4](#) apply both before and after testing in accordance with ISO 7175-2.

4.2 Materials

4.2.1 Materials and surfaces

All accessible parts shall meet the relevant requirements from ISO 8124-3.

4.2.2 Flammability of textiles, coated textiles and plastics coverings

When tested in accordance with ISO 8124-2:2014, 5.4, the maximum rate spread of flame of textiles, coated textiles or plastic coverings shall be 30 mm/s.

When tested in accordance with EN 1103, there shall be no flash-effect.

4.3 Initial stability

When tested in accordance with ISO 7175-2:2019, 6.2, the cot shall not overturn.

4.4 Construction

4.4.1 General

4.4.1.1 Edges and protruding parts

Edges and protruding parts accessible during normal use shall be rounded or chamfered, and free of burrs and sharp edges.

4.4.1.2 Self-tapping screws

Self-tapping screws shall not be used to fasten any component that is designed to be removed or loosened when dismantling the cot for purposes of transportation or storage.

NOTE Self-tapping screws include wood screws, particleboard screws and the like.

4.4.1.3 Labels and decals

Glued labels and decals shall not be used on the internal surfaces of cot sides and ends unless they are below the level of the cot base or mattress base.

4.4.1.4 Small parts

When tested in accordance with ISO 7175-2:2019, 6.5, no accessible part that can be detached shall fit wholly within the small parts cylinder.

4.4.1.5 Castors and wheels

Castors/wheels shall not be fitted except in the following configuration, either:

- a) two or more castors/wheels and at least two other support points, or,
- b) at least four castors/wheels, of which at least two can be locked.

4.4.2 Holes, gaps and openings on the inside of the cot

4.4.2.1 General

With the exception of the holes, gaps and openings specified in [4.4.2.2](#), [4.4.2.3](#), [4.4.2.4](#), [4.4.2.5](#), [4.4.2.6](#), [4.4.4.2](#) and [4.4.4.3](#), all accessible holes, gaps and openings shall be less than 7 mm, between 12 mm and 25 mm, or between 45 mm and 65 mm when tested in accordance with ISO 7175-2:2019, 6.4.1.

4.4.2.2 Assembly holes

When tested in accordance with ISO 7175-2:2019, 6.4.1, there shall be no accessible holes between 7 mm diameter and 12 mm diameter, unless the depth is less than 10 mm.

4.4.2.3 Distance between cot base and sides and ends

When tested in accordance with ISO 7175-2:2019, 6.4.1, it shall not be possible for the 25 mm cone to pass between the cot base and the sides, and between the cot base and the ends.

4.4.2.4 Openings in mesh sides and ends

When tested in accordance with ISO 7175-2:2019, 6.4.1, it shall not be possible for the 7 mm cone as described in ISO 7175-2:2019, 5.1, to pass through the holes of the mesh.

4.4.2.5 Distance between slats of the cot base

When tested in accordance with ISO 7175-2:2019, 6.4.1, it shall not be possible for the 60 mm cone to pass between two adjacent slats of the cot base.

4.4.2.6 Opening in mesh of the cot base

When tested in accordance with ISO 7175-2:2019, 6.4.1, it shall not be possible for the 85 mm cone to pass through a cot base made of mesh.

4.4.3 Head entrapment on the exterior of the cot

The following requirements do not apply to the cots that have a mesh or fabric sides/ends and a rigid leg or support system, when the lowest part of the opening is less than 100 mm from the floor.

When tested in accordance with ISO 7175-2:2019, 6.4.2, completely bound openings on the exterior of the cot that allow passage of the small head probe shall also allow the large head probe to pass completely through the bound opening.

Completely bound openings that allow the large probe to pass completely through shall be in accordance with the requirement for partially bound, V and irregular shaped openings when tested in accordance with ISO 7175-2:2019, 6.4.2.

Partially bound, V and irregular shaped openings shall be constructed so that:

- a) portion B of the template does not enter the opening when tested in accordance with ISO 7175-2:2019, 6.4.2; or
- b) the apex of portion A of the template contacts the base of the opening when tested in accordance with ISO 7175-2:2019, 6.4.2.

4.4.4 Shear and squeeze points

4.4.4.1 Shear and squeeze points when setting up and folding

If [4.4.4.3](#) is not applicable, shear and squeeze points that are created only when setting up or folding are permitted.

4.4.4.2 Shear and squeeze points under the influence of powered mechanisms

Where powered or spring loaded mechanisms are used, the distance between two accessible parts moving relative to each other shall always be greater than 18 mm or smaller than 5 mm.

4.4.4.3 Shear and squeeze points during use

There shall be no accessible shear and squeeze points which are less than 18 mm, unless they are always less than 5 mm before and during the last load application according to ISO 7175-2:2019, 6.9.1.

4.4.5 Snag points

When tested in accordance with ISO 7175-2:2019, 6.10, the mass shall not be supported by any part accessible from inside the cot. Parts of cot sides and ends more than 1 400 mm above the cot base are considered not accessible.

4.4.6 Locking systems

4.4.6.1 Locking systems for folding cots

Folding cots that fold towards the inside shall be equipped with at least two locking systems fulfilling the requirements of [4.4.6.2](#).

All other folding cots shall be equipped with a locking system fulfilling the requirements of [4.4.6.2](#) in order to prevent unintentional folding.

The cot shall not fold and the locking system shall fulfil its function when tested in accordance with ISO 7175-2:2019, 6.11.

4.4.6.2 All locking systems

With the exception of the locks on castors/wheels, all locking systems shall:

- a) have a residual force of at least 50 N (tangential when relevant) for operation when tested in accordance with ISO 7175-2:2019, 6.11; or
- b) require at least two consecutive actions operating on different principles, the second being dependent on the first having been carried out and maintained; or
- c) require at least two separate but simultaneous actions operating on different principles; or
- d) have two operating devices separated by a distance of at least 850 mm and required to be operated simultaneously; or
- e) require the cot base to be lifted to allow folding of the cot.

If the weight of the child on the cot base has a positive effect on the locking, this is accepted as an operating device.

The locking system shall function before and after testing in accordance with ISO 7175-2:2019, 6.11.

4.4.7 Cot base

4.4.7.1 Folding mattress base and cot base

Any folding mattress base or cot base shall not fold when tested in accordance with ISO 7175-2:2019, 6.7.1.

4.4.7.2 Adjustable cot base

If the cot base is adjustable, adjustment from a higher position to a lower position shall require the use of a tool or operation of a locking system which fulfils the requirements of [4.4.6.2](#).

4.4.7.3 Strength of the cot base

When tested in accordance with ISO 7175-2:2019, 6.7.2, no element of the cot base shall break, nor shall the cot base become dislodged and the function of the cot shall not be impaired.

4.4.8 Sides and ends

4.4.8.1 Movable sides

In the highest position, movable sides shall be provided with a locking system fulfilling the requirements of [4.4.6.2](#). The locking system shall engage automatically when the movable side is adjusted to its highest position.

To avoid entrapment hazards when the movable side is in the lowest position, one of the following conditions shall be met:

- a) the locking system shall fulfil the requirements of [4.4.6.2](#) and shall engage automatically when the movable side is in its lowest position; or
- b) in its lowest position, the lower component of the movable side shall always be above the bed base or mattress base; or
- c) when the movable side is in the lowest position, the gap between the lower component of the movable side and the ground or any other component below shall always be greater than 223 mm.

4.4.8.2 Distance between footholds and top of cot sides and ends

With the mattress base in the lowest position, the minimum distance between the upper side of the mattress base and the upper edge of the cot side and end shall be at least 500 mm, when tested in accordance with ISO 7175-2:2019, 6.9.1, under load.

With the mattress base and the sides/ends in the highest position, the minimum vertical distance between the upper side of the mattress base and the upper edge of the cot side and end shall be at least 200 mm.

If the mattress is not an integral part of the cot:

- the measurement shall be made from the mark of the maximum thickness of the mattress [see [Clause 6 j\)](#)] and the upper edge of the cot side and end; or
- if the indication of the maximum thickness of the mattress is provided by a text, the measurement shall be made from the top surface of the cot base and the upper edge of the cot side and end, minus the maximum thickness of the mattress (see [Clause 6 j\)](#)).

When tested in accordance with ISO 7175-2:2019, 6.3.3, there shall be no footholds:

- within 500 mm of the top rail; or
- if there is a foothold within 500 mm of the top rail, there shall be no other footholds within 500 mm below the highest foothold.

4.4.8.3 Strength of side and end components

When tested in accordance with ISO 7175-2:2019, 6.8.1, 6.8.2 and 6.8.3, the slats or sides and ends and corners shall neither break nor become detached. The function of the cot shall not be impaired.

When tested in accordance with ISO 7175-2:2019, 6.8.4, the threads of the mesh and other flexible materials, e.g. fabrics, plastics, shall not break and the function of the cot shall not be impaired.

4.4.8.4 Strength of frame and fastenings

When tested in accordance with ISO 7175-2:2019, 6.9.1 and 6.9.2, there shall be no breakage. The function of the cot shall not be impaired.

The test in ISO 7175-2:2019, 6.9.2 is not applicable to folding cots.

4.4.9 Cot rim

No filling shall be removed from the cot rim when tested in accordance with ISO 7175-2:2019, 6.6, bite test.

4.5 Final stability

When tested in accordance with ISO 7175-2:2019, 6.12, the cot shall not overturn.

4.6 Mattress size

If a mattress is supplied with the cot, the distance shall be no more than 30 mm between the mattress and the sides and ends in any position of the mattress [see [Clause 6 l](#)].

5 Packaging

Plastic coverings used for cots, folding cots or mattresses shall be tested in accordance with ISO 8124-1. Any plastic covering that does not meet the requirements of ISO 8124-1 shall be conspicuously marked with the following information or its equivalent:

“To avoid danger of suffocation, keep this plastic bag away from babies and children.”

6 Instructions for use

Instructions shall be provided in the official language(s) of the country where the cot is sold.

These instructions shall be headed **“IMPORTANT, RETAIN FOR FUTURE REFERENCE: READ CAREFULLY”** in letters not less than 5 mm high.

Warnings

The word WARNING can be given at the top of a list of warnings.

The instructions for use shall include the following warnings:

- a) Warning: be aware of the risk of open fire and other sources of strong heat, such as electric bar fires, gas fires, etc. in the near vicinity of the cot;
- b) Warning: do not use the cot if any part is broken, torn or missing and use only spare parts approved by the manufacturer;
- c) Warning: do not leave anything in the cot or place the cot close to another product which can provide a foothold or present a danger of suffocation or strangulation, e.g. strings, blind/curtain cords, etc.;
- d) Warning: do not use more than one mattress in the cot.

The instructions for use shall include the following statements:

- e) Statement that a cot is ready for use only when the locking mechanisms are engaged and instruction to check carefully that they are fully engaged before using the folding cot;
- f) If the height of the cot base is adjustable, statement that the lowest position is the safest and that the base should always be used in that position as soon as the baby is old enough to sit up;
- g) When movable sides are provided, statement as follows: “if you leave the child unattended in the cot, always make sure that the movable side is closed”;
- h) Where detachable support rails are provided to support the cot base above its lowest position, statement that it is essential to remove these rails before the cot is used in its lowest position;
- i) Assembly drawing, list and description of all parts and tools required for assembly and diagram of the bolts and other fastenings required;
- j) Thickness of the mattress shall be such that the internal height (surface of the mattress to the upper edge of the cot frame) is at least 500 mm in the lowest position of the cot base and at least 200 mm in the highest position of the cot base. This information is not applicable to and shall not appear for folding cots in which the mattress is an integral part of the product through a mattress base;

- k) Where the requirement in [Clause 6 j\)](#) is fulfilled by a mark on the cot, statement that the mark indicates the maximum thickness of the mattress to be used with the cot. This information is not applicable to and shall not appear for folding cots in which the mattress is an integral part of the product through a mattress base;
- l) Minimum size of the mattress to be used with the cot. The dimension shall take into account that the distance shall be no more than 30 mm between the mattress and the sides and ends in any position of the mattress. This information is not applicable to and shall not appear for folding cots in which the mattress is an integral part of the product through a mattress base;
- m) Statement that all assembly fittings should always be tightened properly and that fittings should be checked regularly and retightened as necessary;
- n) Instructions for washing/cleaning, when applicable;
- o) Statement to prevent injury from falls, indicating that when the child is able to climb out of the cot, the cot shall no longer be used for that child;
- p) The following warning shall appear on the instructions for use of folding cots for which the mattress is an integral part of the product through a mattress base.

"WARNING — Only use the mattress sold with this cot and do not add a second mattress on it. Suffocation hazards."

A pictogram may be added, however it shall not replace the warning. An example of pictogram is shown in [Figure 1](#).

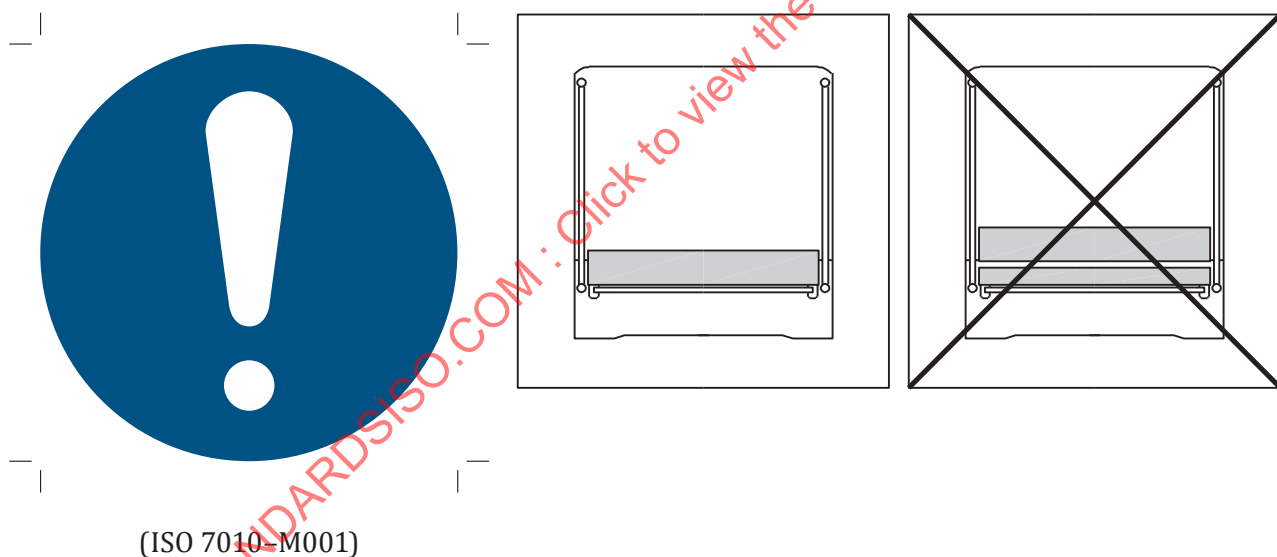


Figure 1 — Example of pictogram

7 Marking

All cots shall be permanently marked with the following information:

- a) if the mattress is an integral part of the folding cot (example: mattress base):
 - 1) the following warning shall appear on the mattress with letters at least 3 mm high:
"WARNING — This is a mattress. Do not add a second mattress. Suffocation hazards.";
 - 2) name, registered trade name or registered trademark of either the manufacturer or distributor or retailer together with additional means of identifying the product;