



**SLOVENSKI STANDARD**  
**SIST EN 747-1:1996**

**01-april-1996**

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Furniture - Bunk beds for domestic use - Part 1: Safety requirements

Möbel - Etagenbetten für den Wohnbereich - Teil 1: Sicherheitsanforderungen

Meubles - Lits superposés a usage domestique - Partie 1: Exigences de sécurité

**Ta slovenski standard je istoveten z: EN 747-1:1993**

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EUROPEAN STANDARD

EN 747-1:1993

NORME EUROPÉENNE

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March 1993

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Descriptors: Furnishings, children furniture, beds, superposed furniture, elements, specification, safety, accident prevention

English version

## Furniture - Bunk beds for domestic use - Part 1: Safety requirements

Meubles - Lits superposés à usage domestique -  
Partie 1: Exigences de sécurité

Möbel - Etagenbetten für den Wohnbereich - Teil  
1: Sicherheitsanforderungen

This European Standard was approved by CEN on 1993-02-26. 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.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

**CEN**

European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard was prepared by the Technical Committee CEN/TC 207 "Furniture", of which the secretariat is held by IBN.

This standard is part of a series of standards on requirements and test methods for children's and nursery furniture.

The standard is based on ISO/DIS 9098-1. Some modifications, however, had to be introduced, due to the results of the PQ-procedure.

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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 September 1993, and conflicting national standards shall be withdrawn at the latest by September 1993.

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The standard was approved in accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

## 1 Scope

This part of EN 747 specifies requirements relating to the safety of bunk beds for domestic use. It is in particular intended to minimize the risk of accidents happening to children. Only the sleeping function is considered.

This standard also applies to single beds for use at a height of the upper face of the bed base of 800 mm or more above floor level, irrespective of the use of which the space below is put.

## 2 Normative references

The following standards contain provisions which, through reference in this text, constitutes provisions of this European Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this European Standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed below.

EN 747-2 Furniture - Bunk beds for domestic use - Part 2: Test methods

## 3 Definitions

For the purposes of this European Standard the following definitions apply:

3.1 Bunk bed: A set of components that can be assembled as beds, one stacked upon the other, or any bed in which the upper surface of the bed base is 800 mm or more above floor level.

3.2 Bed end structures: An upright unit at the head and foot of the bed, to which the side rails and bed base are attached.

3.3 Bed base: The base or support structure for a mattress.

3.4 Safety barrier: A component intended to prevent an occupant from falling out of the bed.

3.5 Side rail: A longitudinal member attached to the bed end structure by which the bed base can be supported.

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## 4 Safety requirements

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### 4.1 Materials

Wood and wood-based material shall be free from decay and insect attack.

## 4.2 Construction

Exposed edges and protruding parts shall be rounded and free from burr or sharp edges. There shall be no open-ended tubes.

All assembly, fastening and pilot holes shall be drilled by the manufacturer.

## 4.3 Top bed safety barriers

Any bed which could be used as a top bed shall be equipped with four safety barriers.

The safety barriers shall be secured against accidental loosening. This requirement shall be considered fulfilled if the safety barriers do not become damaged or loosened when tested in accordance with 5.4.2 of EN 747-2, with a vertical force of 200 N and a horizontal force of 500 N.

It shall not be possible to remove the barriers without the aid of a tool.

The distance between the upper edge of the safety barriers and the upper side of the bed base shall be at least 260 mm. The top of the mattress shall be at least 160 mm below the upper edge of the safety barriers. The maximum thickness of the mattress shall be marked permanently with a line on the bed, showing the maximum level of the upper surface of the mattress.

One long side of the safety barriers may be completely interrupted by a ladder. The interruption shall be minimum 300 mm and maximum 400 mm. The position of the ladder shall be indicated in the instructions for use.

The safety barrier shall be so designated that in one direction at least the clear space between two adjacent retaining elements, e.g. bands, filling bars, does not exceed 75 mm and is not less than 60 mm when tested according to 5.3 of EN 747-2.

After this test the permanent deflection of the retaining elements shall not exceed 2 mm.

## 4.4 Gaps

Requirements on specific gaps or spaces are found in:

- 4.3 Top bed safety barrier
- 4.5 Bed base
- 4.6.2 Dimensions of treads

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All other accessible gaps or spaces of the bed construction shall be equal to or smaller than 25 mm but at least 12 mm, between 60 or 75 mm or equal to or bigger than 200 mm.

#### 4.5 Bed base

All gaps between the bed base and the side or ends shall not exceed 25 mm, when measured in accordance with 5.3 of EN 747-2.

When tested in accordance with 5.4.3, 5.4.4 and 5.4.5 of EN 747-2, no element of the bed base shall break, fall down or become loose.

The bed base and/or its elements of the upper bed shall remain in place when tested in accordance with 5.4 of EN 747-2.

The clear distance between the upper and lower bed bases shall be at least 750 mm.

The bed base shall allow for ventilation.

#### 4.6 Ladder

##### 4.6.1 Attachment, deflection and strength of ladder and treads

The bed shall be provided with a ladder which is safety connected. This requirement is considered to be fulfilled if, when tested in accordance with 5.6.1 of EN 747-2, with a downward static load of 1000 N and a perpendicular static load of 500 N, the ladder does not move.

Ladders and treads shall not deflect permanently by more than 5 mm nor shall they break when tested in accordance with 5.6.1 and 5.6.2 of EN 747-2.

**NOTE:**

- The ladder may be an integral part of the bed construction.
- The ladder or the device allowing to enter or leave the upper bed shall have sufficient supports for the feet and hand-grips.

##### 4.6.2 Dimensions of treads

The distance between the upper surfaces of two successive treads shall be  $250 \pm 50$  mm.

The distance between the upper surfaces of the treads shall be equal with a tolerance of  $\pm 2$  mm.

The clear distance between two successive treads shall be at least 200 mm and usable width of the tread shall be at least 300 mm.

Any foothold shall comply with these requirements. The step depth and the gap between any treads and any part of the bed construction shall be as shown in figure 1.

Frame parts of the bed, situated in the vicinity of treads, may not interfere with the usable area of the tread.

The requirements apply both before and after testing.

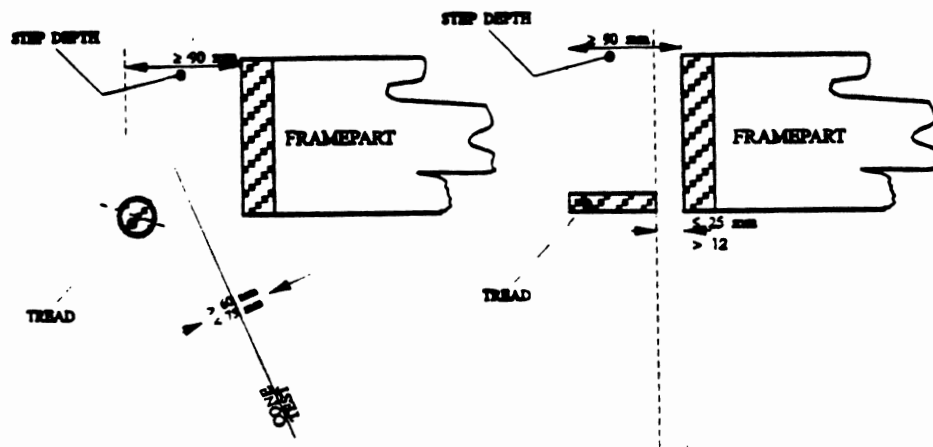


Figure 1: Gaps and step depth  
Example of constructions

#### 4.7 Strength of frame and fastenings

Supporting fastenings, e.g. between bedpost and bedframe, shall not be damaged or detached or out of function when tested in accordance with 5.4.3 and 5.5 of EN 747-2.

#### 4.8 Stability

When tested in accordance with 5.7 of EN 747-2, with a force of 120 N, not more than one leg or corner of the bed shall lift from the floor.

#### 4.9 Fastening of the upper bed to the lower bed

The upper bed shall be connected to the lower bed in such a manner that it does not disconnect, when tested in accordance with 5.8 of EN 747-2, with a force of 500 N.

### 5 Instruction for use

Any bunk bed according to this standard shall be provided with instructions for use. The instructions shall contain:

- Instructions that the top of the mattress shall not come above the line marked on the bed
- Assembly instructions
- Positioning and connection of the ladder
- A list of the parts supplied and details of any tools required to assemble the bed
- The phrase "Be aware of the danger of young children (under 6) falling from the upper bunk"
- The number of this part of EN 747.