SLOVENSKI STANDARD
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Pohištvo - Pogradi in visoke postelje za domačo uporabo - 2. del: Preskusne metode

Furniture - Bunk beds and high beds for domestic use - Part 2: Test methods

Möbel - Etagenbetten und Hochbetten für den Wohnbereich - Teil 2: Prüfverfahren

Ameublement - Lits superposés et lits surélevés à usage domestique - Partie 2 : Méthodes d'essai

Ta slovenski standard je istoveten z: EN 747-2:2007

ICS:

97.140	Pohištvo	Furniture

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EUROPEAN STANDARD

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English Version

Furniture - Bunk beds and high beds for domestic use - Part 2: Test methods

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Foreword

This document (EN 747-2:2007) has been prepared by Technical Committee CEN/TC 207 “Furniture”, the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by October 2007, and conflicting national standards shall be withdrawn at the latest by April 2008.

This document supersedes EN 747-2:1993.

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

Introduction

This part of EN 747 describes a number of tests consisting of the application, to various parts of the item, of loads or forces applied by one adult person during normal functional use, as well as misuse that can reasonably be expected to occur.

The tests are designed to evaluate properties without regard to materials, design/construction or manufacturing processes.

This revised edition has been editorially amended and compared with the previous version, all loads, forces and cycles are now in this part of EN 747.

1 Scope

This part of EN 747 specifies test methods for assessing the safety, strength and durability of bunk beds and high beds for domestic use. The loads and forces in the strength and durability tests apply for beds with a maximum bed base width of 120 cm. It is particularly intended to minimise the risk of accidents happening to children. Only the sleeping function is considered.

The tests are designed to be applied to a free-standing bed that is fully assembled and ready for use.

The test results are only valid for the article tested. When the test results are to be applied to other similar articles, the test sample shall be representative of the production model.

2 Normative references

The following referenced documents are indispensable for the application 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.

EN 747-1:2007, *Furniture — Bunk beds and high beds for domestic use — Part 1: Safety, strength and durability requirements*

EN ISO 2439, *Flexible cellular polymeric materials - Determination of hardness (indentation technique) (ISO 2439:1997, including Technical Corrigendum 1:1998)*

3 General test conditions

3.1 Preliminary preparation

The sample shall be tested as delivered. If the sample is a knock-down type, it shall be assembled according to the instructions supplied with it. If the instructions allow for different combinations, the most adverse combination shall be used for each test.

The test shall be carried out in indoor ambient conditions, but if during the test procedure the test atmosphere is outside the range 15° C to 25° C, the maximum and/or minimum temperature shall be recorded in the test report.

Knock-down fittings shall be tightened before testing and shall not be re-tightened throughout the testing procedures.

The tests shall be carried out on the same sample and in the same order as listed in this part of EN 747.

In the case of designs not catered for in the test procedures, the test shall be carried out as far as possible as described, and a list made of the deviations from the test procedure.

3.2 Application of forces

The test forces in durability and static tests shall be sufficiently slow to ensure that a negligible dynamic load is applied. The forces in durability tests shall be applied sufficiently slowly to ensure that kinetic heating does not occur.

Unless otherwise specified, static loads shall be maintained for (10 ± 2) sec. Unless otherwise specified, durability loads shall be applied for (2 ± 1) sec.

3.3 Tolerances

For tolerances, unless otherwise stated:

— all forces shall have an accuracy of ± 5 % of the nominal force;

— all masses shall have an accuracy of ± 0,5 % of the nominal mass;

— all dimensions shall have an accuracy of ± 1 mm of the nominal dimension;

— all angles shall have an accuracy of ± 2 ° of the nominal angle.

The tolerance for the positioning of loading pads shall be ± 5 mm.

The forces may be replaced by masses. The relationship of 10 N = 1 kg shall be used.

4 Test equipment

4.1 General

The test forces may, unless otherwise stated, be applied by any suitable device as results only depend on correctly applied forces and loads and not on the apparatus.

The equipment shall be capable of following the deformation of the unit/component during testing, so that the loads are always applied at specified points and in specified directions.

4.2 Measuring cones

Cones with an angle of (30 ± 1) ° made of plastics or other hard, smooth material (see Figure 1). There shall be five cones with the diameters 5 mm, 12 mm, 25 mm, 60 mm and 75 mm.

The 5 mm, 25 mm and 75 mm cone diameters shall have tolerances of (0/ - 0,1) mm.

The 12 mm and 60 mm cone diameters shall have tolerances of (0/ + 0,1) mm.

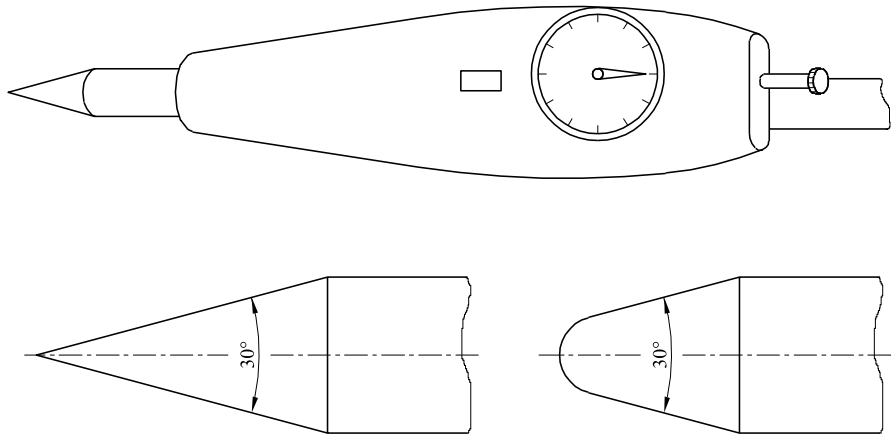


Figure 1 — Example of measuring cone

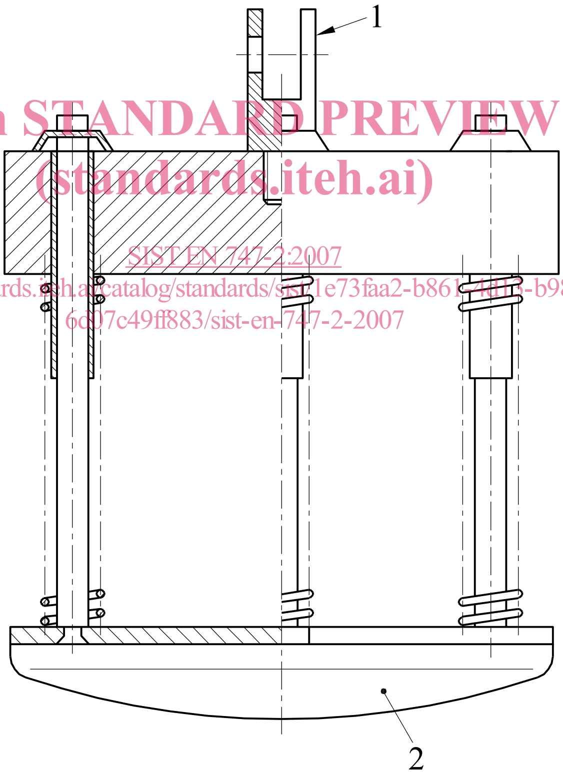
4.3 Bed base impactor

4.3.1 Bed base impactor (see Figure 2)

Approximately 200 mm in diameter, separated from the striking surface by helical compression springs and free to move relative to it on a line perpendicular to the plane of the central area of the striking surface (see Figure 2). The body and associated parts minus the springs shall have a mass of (17 ± 0,1) kg and the whole apparatus, including mass, springs and striking surface, shall have a mass of (25 ± 0,1) kg.

4.3.2 Springs

Springs shall be such that the combined spring system has a nominal spring rate of (6,9 ± 1) N/mm and the total friction resistance of the moving parts is between 0,25 N and 0,45 N. The spring system shall be compressed to an initial load of (1 040 ± 5) N (measured statically) and the amount of spring compression movement available from the initial compression point to the point where the springs become fully closed shall not be less than 60 mm.



Key

1 Connecting part of the lifting device which shall not restrain the free fall
2 Striking surface

Figure 2 — Bed base impactor