



SLOVENSKI STANDARD
SIST EN 12221-2:2002

01-maj-2002

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Changing units for domestic use - Part 2: Test methods

Wickeleinrichtungen für den Hausgebrauch - Teil 2: Prüfverfahren

Dispositifs a langer a usage domestique - Partie 2: Méthodes d'essai

Ta slovenski standard je istoveten z: EN 12221-2:1999

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ICS:

97.190

Otroška oprema

Equipment for children

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en

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English version

Changing units for domestic use - Part 2: Test methods

Dispositifs à langer à usage domestique - Partie 2:
Méthodes d'essai

Wickeleinrichtungen für den Hausgebrauch - Teil 2:
Prüfverfahren

This European Standard was approved by CEN on 25 October 1998.

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.

This European Standard exists 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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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 has been jointly prepared by Technical Committee CEN/TC 252, "Child use and care articles", the secretariat of which is held by AFNOR and CEN/TC 207 "Furnitures", the secretariat of which is held by IBN.

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of an identical text or by endorsement, at the latest by February 2000, and conflicting national standards shall be withdrawn at the latest by February 2000.

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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Introduction

This part of EN 12221 has been prepared in order to provide assurance that changing units conforming to the requirements in EN 12221-1 are reasonably safe.

It describes among others a number of tests consisting of the application to various parts of the item, of loads or forces simulating 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.

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1 Scope

This part of EN 12221 describes tests methods that assess the safety of changing units for domestic use.

The tests are designed to be applied to a changing unit that is fully assembled and ready for use.

NOTE The test results are only valid for the article tested. When the test results are intended to be applied to other similar articles, the test specimen should be representative of the production model.

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

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.

EN 12221-1, *Changing units for domestic use - Part 1 : Safety requirements.*

ISO 48:1979, *Vulcanised rubbers - Determination of hardness (Hardness between 30 and 85 IRHD).*

3 General

If not otherwise stated, all forces shall have an accuracy of $\pm 5\%$, all masses an accuracy of $\pm 0,5\%$ and all dimensions an accuracy of $\pm 0,5$ mm.

Before any of the tests are commenced, the item shall be old enough to ensure that it has developed its full strength. At least four weeks in normal indoor conditions shall have elapsed between manufacture and testing in the case of glued joints in timber and the likes.

The sample for testing shall be stored in indoor ambient conditions for at least one week immediately prior to testing - any variation from this procedure shall be justified in the report.

Before testing, any fabrics used shall be cleaned or washed and dried twice following the manufacturer's instructions.

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

The changing unit shall be tested as delivered. If of knock-down type, it shall be assembled according to instructions supplied with the unit. If the changing unit can be assembled or combined in different ways, the most onerous combinations shall be used for each test. The tests shall be carried out on the same specimen as listed.

Knock-down fittings shall be tightened before testing and shall not be retightened throughout the testing procedure.

4 Test equipment

NOTE Unless otherwise specified, test forces may be applied by any suitable device, because results are dependent only upon correctly applied forces and loads, and not upon the apparatus.

4.1 Slide gauge

A cone made of plastics or other hard, smooth material mounted on a force-measuring device (see Figure 1). There shall be 7 cones having diameters 5 mm, 7 mm, 12 mm, 18 mm, 25 mm, 45 mm and 65 mm.

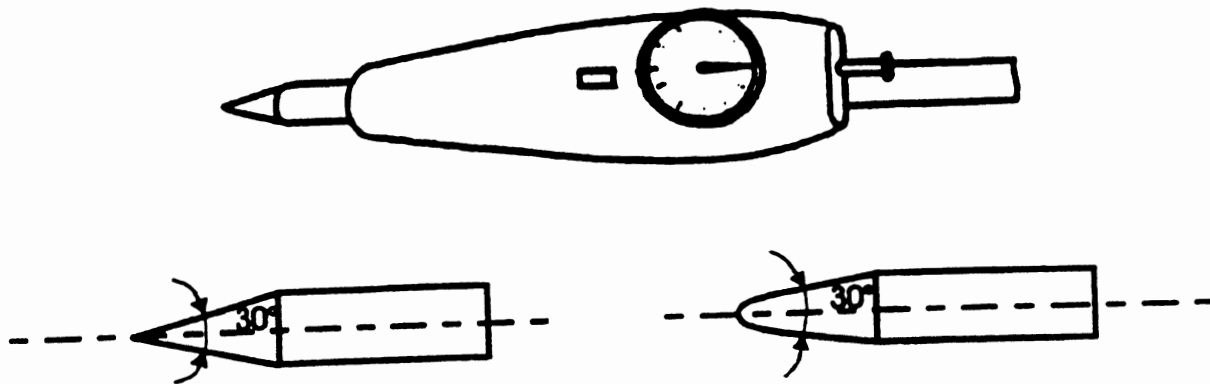


Figure 1 – Examples of measuring cones

4.2 Test cylinder

A cylinder with a hard and smooth surface, 200 mm in diameter, 300 mm in length with a mass of 15 kg. Its centre of gravity shall be in the centre of the axis of rotation. The edges shall have a radius of 5 mm.

4.3 Force-measuring device

E.g. a spring balance.

4.4 Test base

4.4.1 Floor for floor standing units

Horizontal, rigid, flat.

4.4.2 Test wall for wall mounted units

Vertical, rigid, flat.

4.4.3 Bath test base

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Bath test base representing the upper bath wall section made of hard and smooth material with dimensions in accordance with Figure 8 b). The profiles shall be fixed parallel to the distance equal to the minimum bath dimension recommended by the manufacturer.

4.5 Stops

To prevent the article from sliding but not tilting, not higher than 12 mm except in cases where the design of the item necessitated the use of higher stops, in which case the lowest that will prevent the item from moving shall be used.

4.6 Test weight

A weight of 5 kg mass, with a diameter not greater than 200 mm.

4.7 Cylinder

It has main dimensions as shown in Figure 2, for assessment of small components.

Dimensions in millimetres

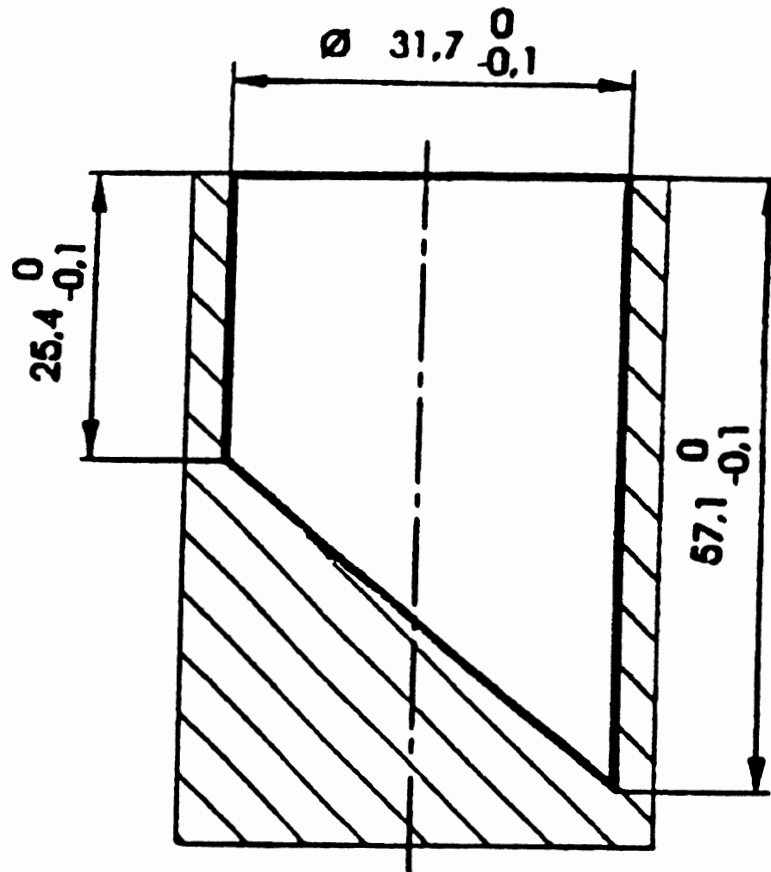


Figure 2 — Cylinder

4.8 Test beam

A beam with a width of 80 mm, a length of 1 100 mm and a mass of 1,75 kg \pm 10 g. The beam shall have holes with a diameter of 8 mm $+ 0,2$ mm / - 0 mm, drilled through its 80 mm wide face and symmetrically placed about its centre point.

These shall be pairs of holes with distances between their centre points equal to the minimum lengths and widths specified in clause 4.1 of EN 12221-1. An additional hole is required at the centre point of the beam.

4.9 Tube

Tube with an inner diameter of 60 mm and a length of 575 mm.

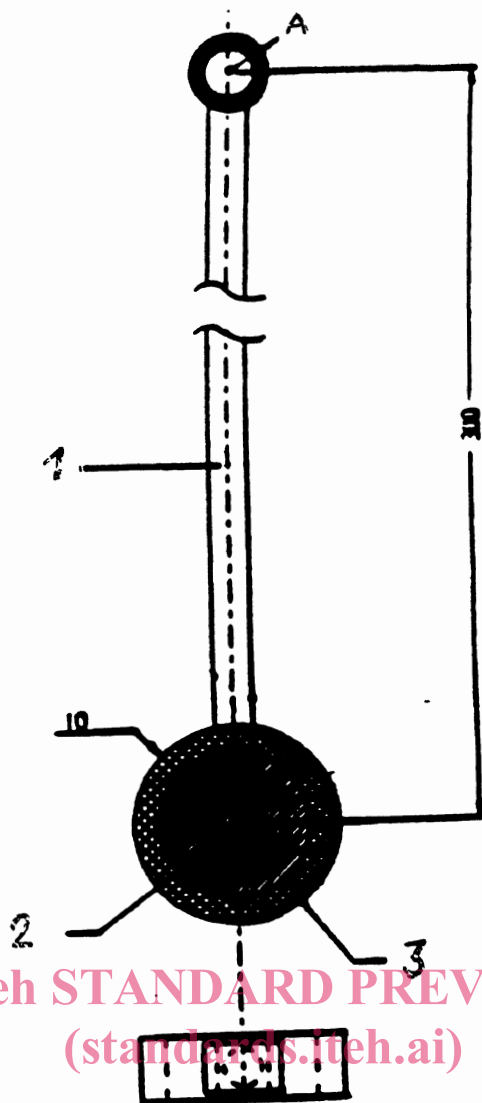
4.10 Steel ball

Solid steel sphere of 50 mm \pm 2 mm diameter and a mass of 510 g.

4.11 Side impacter

Cylindrical pendulum (see Figure 3) made of steel and with the head of the pendulum surrounded by a 10 mm thick layer of rubber of hardness 76 to 78 IRHD in accordance with ISO 48. The centre of gravity shall be 250 mm from the centre of the pivoting point A. The point of impact shall be 300 mm from the pivoting pint. The total mass shall be 2 kg.

Dimensions in millimetres



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Key

- 1 Steel
- 2 Steel
- 3 Rubber of hardness 76 to 78 IRHD, ISO 48

Figure 3 — Side impacter

4.12 Child's head probes

4.12.1 Head probe 1

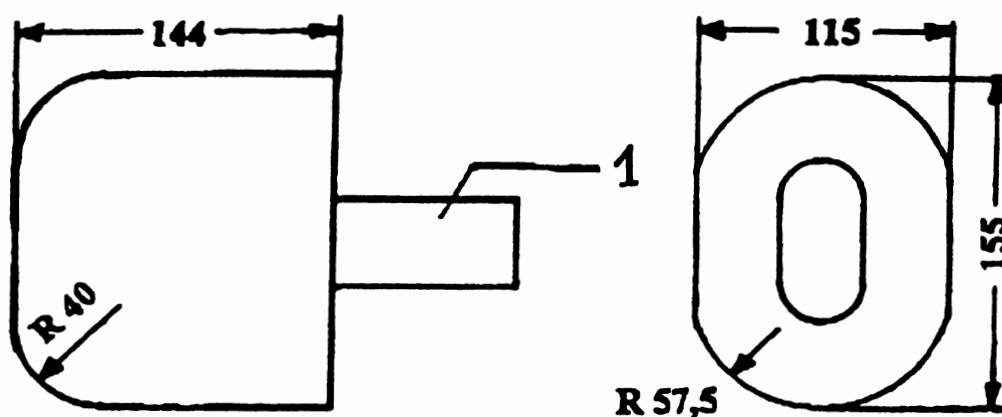
Probe made of hard and smooth material with dimensions as shown in Figure 4.

Dimensions in millimetres

a = 115

b = 155

c = 144



Key

1 Handle

Figure 4 — Type 1 head probe
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