

Playpens for domestic use —

Part 2: Test methods

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British Standard

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National foreword

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 29 and a back cover.

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Kinderlaufställe für den Wohnbereich – Teil 1: Prüfung

This European Standard was approved by CEN on 5 August 1999.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 207 "Furniture", 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of an identical text or by endorsement, at the latest by March 2000, and conflicting national standards shall be withdrawn at the latest by March 2000.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.

Introduction

This part of EN 12227 has been prepared in order to provide assurance that playpens and folding playpens conforming with the requirements in EN 12227-1 are safe.

1 Scope

This part of EN 12227 describes a number of tests consisting of the application, to various parts of the item, of loads and 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.

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 12227-1	1999	Playpens for domestic use - Part 1: Safety requirements
ISO 48		Rubber, vulcanized or thermoplastics - Determination of hardness (Hardness between 10 and 100 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. The tests are designed to be applied to playpens that are fully assembled and ready for use.

Before any of the tests described in this part of EN 12227 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.

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 stated in the report.

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

The tests shall be carried out in indoor ambient conditions, but if during a test the atmospheric temperature is outside the range $15\text{ }^{\circ}\text{C}$ to $25\text{ }^{\circ}\text{C}$, the maximum and/or minimum temperature shall be recorded in the test report.

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

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

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

4 Test equipment

NOTE: If not specified otherwise, the 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 respectively. The cones with a diameter of 5 mm, 7 mm, 25 mm and 65 mm shall have a tolerance of $(0/- 0,1)$ mm. The cones with a diameter of 12 mm, 18 mm and 45 mm shall have a tolerance of $(+ 0,1/0)$ mm.

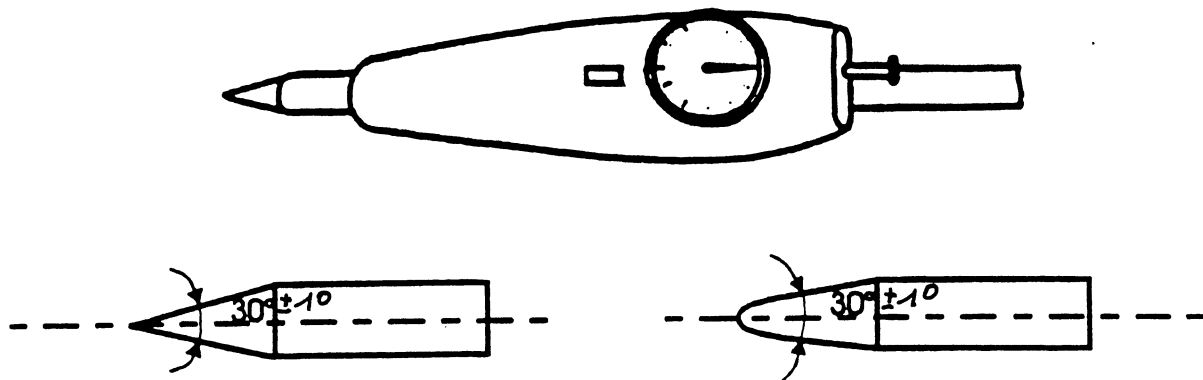


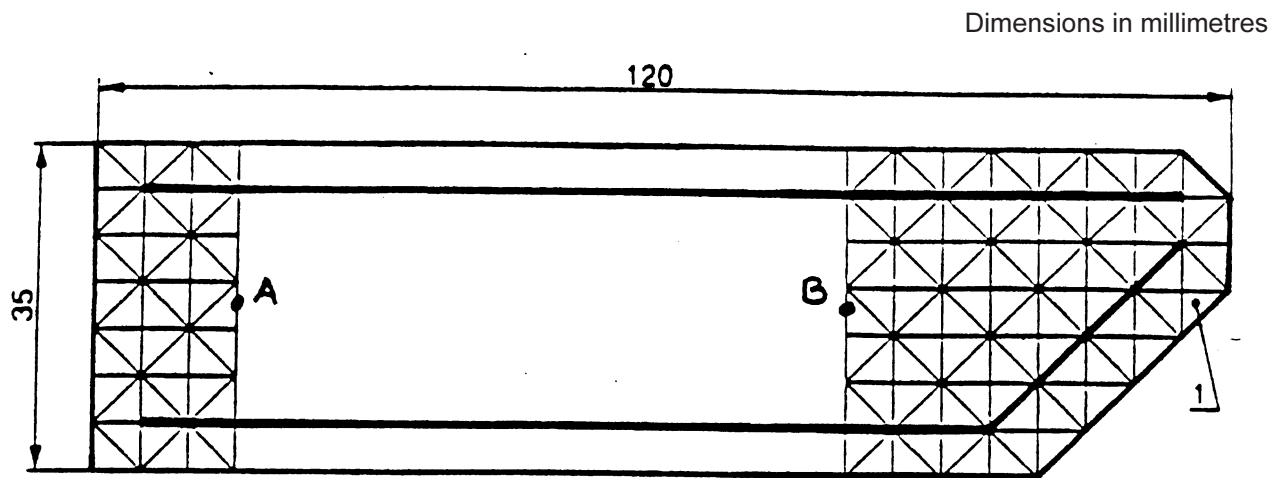
Figure 1: Examples of measuring cone

4.2 Template for foothold

A strip of 10 mm thick transparent material cut to the shape as shown in figure 2, marked on both sides with the pattern as shown.

The template shall have provisions for the attachment of a force-measuring device when necessary.

All edges shall be chamfered with a radius of up to 1 mm.



1 = Triangular cells plotted on a 5x5 grid.

Figure 2: Template for foothold (top view of upper surface)

4.3 Cylinder

Cylinder, having main dimensions as shown in figure 3, for assessment of small components.

Dimensions in millimetres

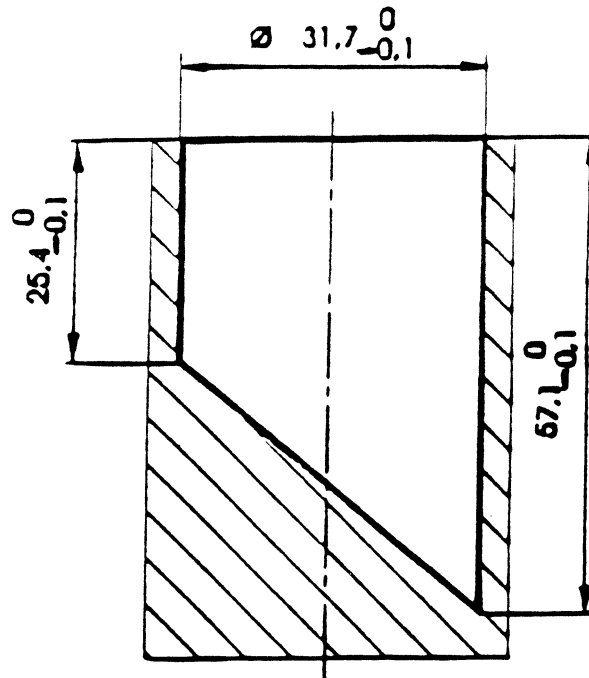


Figure 3: Cylinder

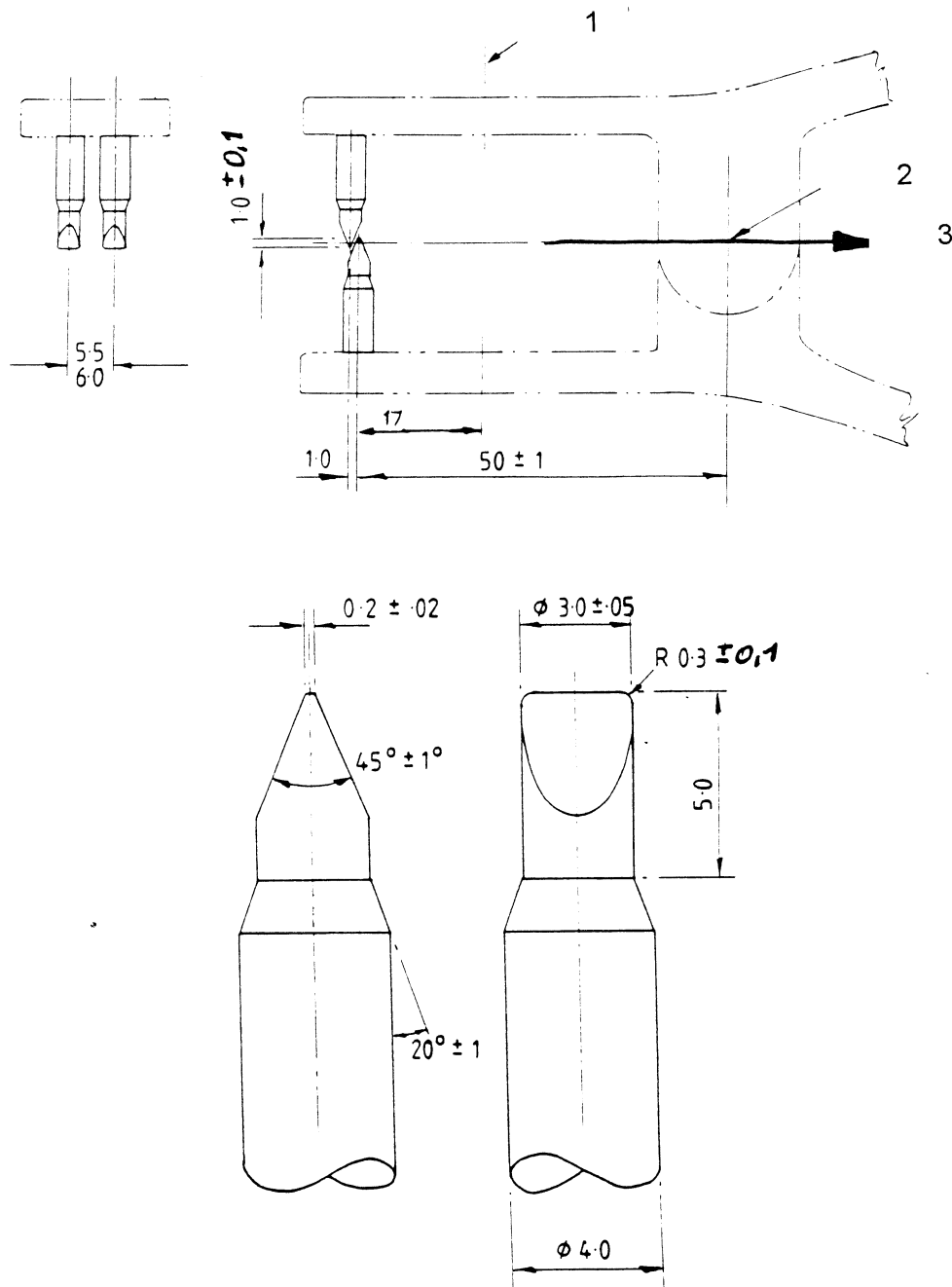
4.4 Bite test apparatus

The apparatus shall consist of two sets of teeth (see figure 4), two at the top and two at the bottom, positioned so that the vertical centre line of one pair of teeth is (1 ± 1) mm in front of the centre line of the other set of teeth. In the fully closed position the teeth shall overlap each other by 1 mm. The outermost corners of the teeth shall have a radius of 0,3 mm.

The teeth shall be mounted so as to pivot about a point (50 ± 1) mm from the rearmost pair of teeth and positioned so that when closed the centre lines of the two pairs of teeth are parallel to each other. The device shall be equipped with a stop to prevent the distance between the teeth from exceeding 28 mm when fully opened. The closing force of the teeth shall be set at (50 ± 5) N.

The device shall be provided with a guide to prevent items entering further into the fully opened jaws more than 17 mm. The device shall be equipped with a means whereby a force of 50 N may be applied along its centre line in a direction tending to pull the teeth off the sample.

Dimensions in millimetres



- 1 Position of guide
- 2 Pivot point
- 3 50 N force

Material: mild steel

Overall length to suit apparatus

Figure 4 : Bite test apparatus