



# SLOVENSKI STANDARD

## SIST EN 12227:2011

01-februar-2011

Nadomešča:

SIST EN 12227-1:2001

SIST EN 12227-2:2001

---

### Stajice za domačo uporabo - Varnostne zahteve in preskusne metode

Playpens for domestic use - Safety requirements and test methods

Kinderlaufställe für den Wohnbereich - Sicherheitstechnische Anforderungen und Prüfungen

[standards.iteh.ai](http://standards.iteh.ai)

Parcs à usage domestique - Exigences de sécurité et méthodes d'essai

[SIST EN 12227:2011](https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011)

[https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-](https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011)

Ta slovenski standard je istoveten z: [EN 12227:2010](https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011)

---

#### ICS:

97.140

Pohištvo

Furniture

**SIST EN 12227:2011**

**en,fr,de**

**iTeh STANDARD PREVIEW**  
**(standards.iteh.ai)**

SIST EN 12227:2011

<https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011>

EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 12227**

August 2010

ICS 97.190

Supersedes EN 12227-1:1999, EN 12227-2:1999

English Version

## Playpens for domestic use - Safety requirements and test methods

Parcs à usage domestique - Exigences de sécurité et méthodes d'essai

Kinderlaufställe für den Wohnbereich - Sicherheitstechnische Anforderungen und Prüfungen

This European Standard was approved by CEN on 19 July 2010.

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 CEN Management Centre 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 CEN Management Centre has the same status as the official versions.

**iTeh STANDARD PREVIEW**

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, 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.

[SIST EN 12227:2011](https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011)

<https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011>



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: Avenue Marnix 17, B-1000 Brussels

## Contents

Page

Foreword.....	4
Introduction .....	5
1 Scope .....	6
2 Normative references .....	6
3 Terms and definitions .....	6
4 Test equipment .....	7
4.1 Hip probe .....	7
4.2 Foothold template.....	8
4.3 Head probes .....	8
4.4 Template for V and irregular shaped openings .....	10
4.5 Finger probes.....	10
4.6 Protruding parts test equipment.....	11
4.7 Small parts cylinder.....	12
4.8 Feeler gauge.....	12
4.9 Bite tester .....	13
4.10 Base impacter .....	14
4.11 Side impacter .....	14
4.12 Loading pad.....	15
4.13 Retaining blocks for strength of mesh.....	15
4.14 Masses.....	16
4.15 Stops .....	16
4.16 Floor surface .....	16
4.17 Test mattress.....	16
5 General.....	16
5.1 Product conditioning.....	16
5.2 Test conditions .....	16
5.3 Application of forces .....	16
5.4 Tolerances .....	16
5.5 Prevention of movement of the playpen during testing .....	17
5.6 Order of tests .....	17
6 Chemical hazards .....	17
7 Thermal hazards .....	18
8 Mechanical hazards .....	18
8.1 Child retention function .....	18
8.2 Requirements for castors/wheels .....	24
8.3 Entrapment .....	25
8.4 Hazards from moving parts .....	28
8.5 Entanglement .....	28
8.6 Choking and ingestion hazards .....	30
8.7 Suffocation hazards.....	32
8.8 Hazardous edges and projections .....	32
8.9 Structural integrity .....	32
8.10 Stability .....	38
9 Product information.....	39
9.1 General.....	39
9.2 Marking .....	39
9.3 Purchase information.....	39

9.4	Instructions for use .....	39
10	Test report.....	40
<b>Annex A</b>	<b>(informative) Rationales for inclusion of requirements for domestic playpens .....</b>	<b>41</b>
<b>A.1</b>	<b>General .....</b>	<b>41</b>
<b>A.2</b>	<b>Chemical hazards .....</b>	<b>41</b>
<b>A.3</b>	<b>Thermal hazards .....</b>	<b>41</b>
<b>A.3.1</b>	<b>Flammability.....</b>	<b>41</b>
<b>A.3.2</b>	<b>Flash effect.....</b>	<b>41</b>
<b>A.4</b>	<b>Mechanical hazards.....</b>	<b>41</b>
<b>A.4.1</b>	<b>General .....</b>	<b>41</b>
<b>A.4.2</b>	<b>Child retention function .....</b>	<b>42</b>
<b>A.4.3</b>	<b>Entrapment hazards .....</b>	<b>42</b>
<b>A.4.4</b>	<b>Hazards from moving parts .....</b>	<b>43</b>
<b>A.4.5</b>	<b>Entanglement.....</b>	<b>43</b>
<b>A.4.6</b>	<b>Detachable components .....</b>	<b>43</b>
<b>A.4.7</b>	<b>Hazardous edges and projections .....</b>	<b>44</b>
<b>A.4.8</b>	<b>Structural integrity .....</b>	<b>44</b>
<b>A.4.9</b>	<b>Stability.....</b>	<b>44</b>
<b>Annex B</b>	<b>(informative) Examples for the design of safe edges and corners .....</b>	<b>45</b>
<b>Bibliography</b>	<b>.....</b>	<b>47</b>

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 12227:2011](#)

<https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011>

EN 12227:2010 (E)

## Foreword

This document (EN 12227:2010) 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 February 2011, and conflicting national standards shall be withdrawn at the latest by February 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 12227-1:1999 and EN 12227-2:1999.

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, Croatia, 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 the United Kingdom.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 12227:2011](#)

<https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011>

## Introduction

If additional products are designed to be attached to the playpen, a hazard and risk analysis should be undertaken to identify any potential hazards.

## iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 12227:2011](https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011)

<https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011>

**EN 12227:2010 (E)****1 Scope**

This European Standard specifies the safety requirements and test methods for playpens and folding playpens for domestic use, for a child with a body weight up to 15 kg.

If a playpen has several functions or can be converted into another function, it shall comply with the relevant standards.

**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 71-1, *Safety of toys — Part 1: Mechanical and physical properties*

EN 71-2, *Safety of toys — Part 2: Flammability*

EN 71-3, *Safety of toys — Part 3: Migration of certain elements*

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

EN ISO 2439:2008, *Flexible cellular polymeric materials — Determination of hardness (indentation technique) (ISO 2439:2008)*

ISO 7619-2, *Rubber, vulcanized or thermoplastic — Determination of indentation hardness — Part 2: IRHD pocket meter method*

[SIST EN 12227:2011](https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011)

<https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011>

**3 Terms and definitions**

For the purposes of this document, the following terms and definitions apply.

**3.1****playpen**

enclosure comprising barrier and integral base intended to retain a child whilst allowing it space in which to play

**3.2****folding playpen**

playpen which can be folded or dismantled without the use of a tool for transportation or storage

**3.3****grab handle**

part attached to the playpen to assist the child within the playpen to attain and maintain a standing position

**3.4****barrier**

structure which forms the outer perimeter of the playpen, which may be continuous or comprise several components

**3.5****base**

structure forming the floor of the playpen to support the child



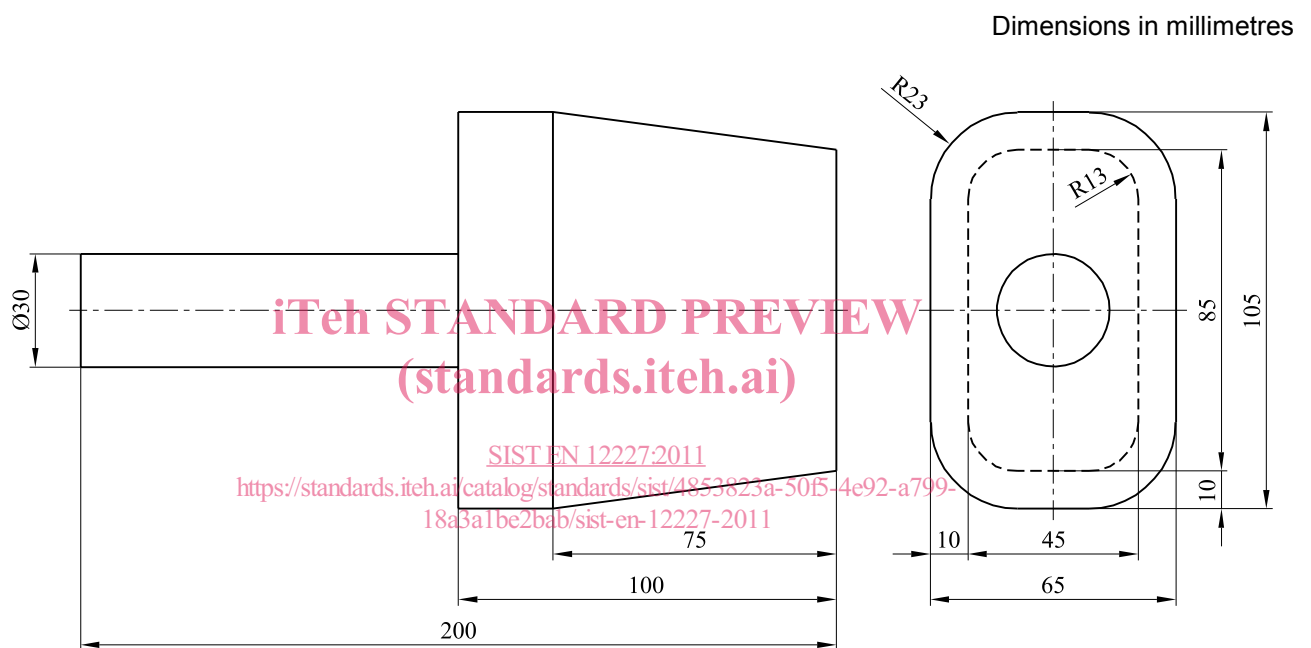
**3.6****accessible parts**

<when a child's hand cannot reach through the barrier> inside of the playpen and exterior of the playpen 300 mm from the upper part of the rim

<when a child's hand can reach through a barrier> whole playpen except the underside of the playpen base

**4 Test equipment****4.1 Hip probe**

The hip probe shall be made from plastics or other hard, smooth material with the dimensions given in Figure 1.

**Key**

- 1 Hip probe
- 2 Handle
- 3 Diameter

NOTE Tolerances on dimensions:

$$\left( \begin{array}{c} 65 \\ 0 \\ -0,5 \end{array} \right) \text{ mm}$$

$$\left( \begin{array}{c} 105 \\ 0 \\ -0,5 \end{array} \right) \text{ mm}$$

$$(30 \pm 5) \text{ mm}$$

$$(200 \pm 5) \text{ mm}$$

All other dimensions as per general tolerances (see 5.4).

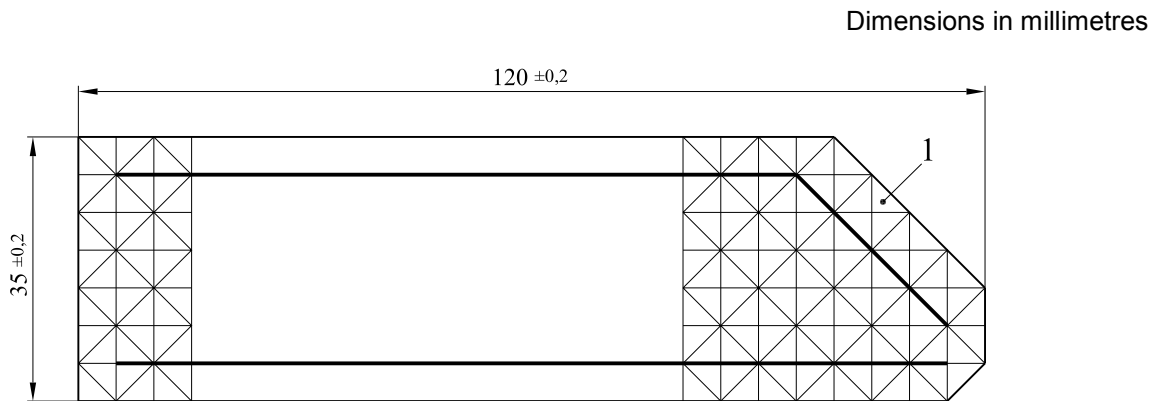
**Figure 1 — Hip probe with handle**

## EN 12227:2010 (E)

## 4.2 Foothold template

A strip of 10 mm thick transparent material cut to the shape as shown in Figure 2.

The sides of the template shall be square to the faces. All edges and corners shall be left as machined without any radius.



## Key

- 1 Triangular cells plotted on a 5 mm × 5 mm grid

**iTeh STANDARD PREVIEW**  
**Figure 2 — Template for foothold test (example of left hand template)**  
**(standards.iteh.ai)**

Two templates are required to provide a left and right hand template. The markings shown in Figure 2 are on the bottom face of each template to avoid parallax errors.

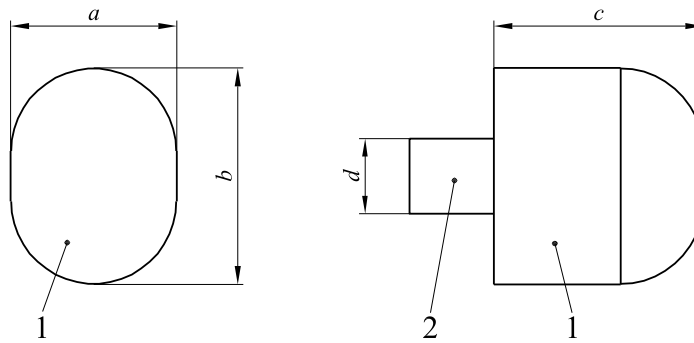
[SIST EN 12227:2011](https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011)

<https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011>

## 4.3 Head probes

## 4.3.1 Small head probe

The small head probe, representing a child aged three months to six months, shall be made from plastics or other hard, smooth material with the dimensions given in Figure 3.

**Key**

$$a = \left( 101 \begin{smallmatrix} 0 \\ -0,5 \end{smallmatrix} \right) \text{mm}$$

$$b = \left( 137 \begin{smallmatrix} 0 \\ -0,5 \end{smallmatrix} \right) \text{mm}$$

$$c = 119 \text{ mm}$$

$$d = (45 \pm 5) \text{ mm}$$

- 1 Small head probe
- 2 Handle

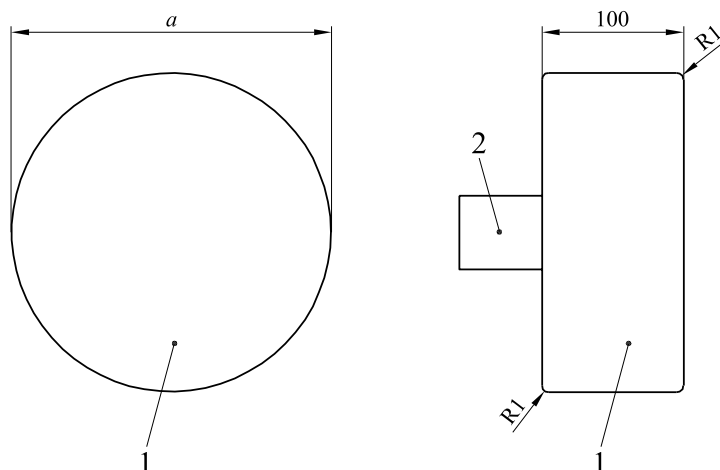
**Figure 3 — Small head probe with handle**  
(standards.iteh.ai)

**4.3.2 Large head probe**

The large head probe shall be made from plastics or other hard, smooth material with the dimensions given in Figure 4.

SIST EN 12227:2011  
<https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011>

Dimensions in millimetres

**Key**

$$a = \left( 223 \begin{smallmatrix} +0,5 \\ 0 \end{smallmatrix} \right) \text{mm}$$

- 1 Large head probe
- 2 Handle

**Figure 4 — Large head probe with handle**

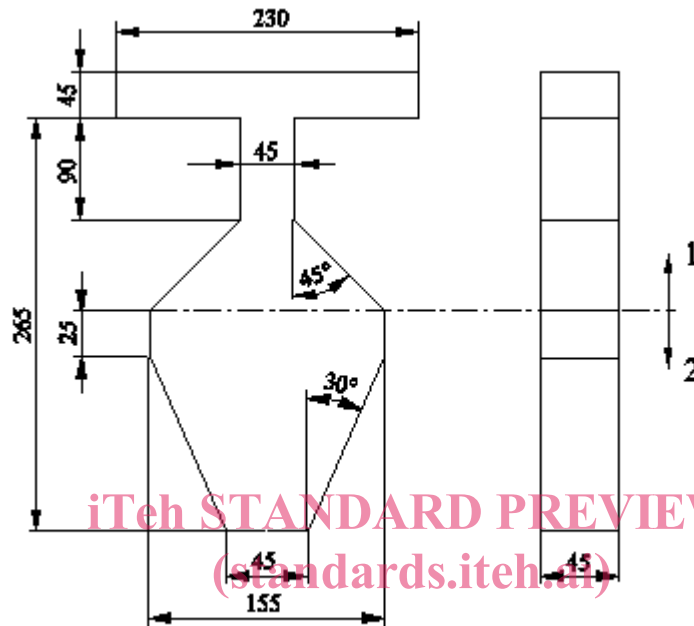
## EN 12227:2010 (E)

## 4.4 Template for V and irregular shaped openings

The template for V and irregular shaped openings shall be made from plastics or other hard, smooth material with the dimensions given in Figure 5.

The tolerance of the angles is  $\pm 1^\circ$ .

Dimensions in millimetres



iTeh STANDARD PREVIEW  
(standards.iteh.ai)

SIST EN 12227:2011

<https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011>

## Key

- 1 B portion
- 2 A portion

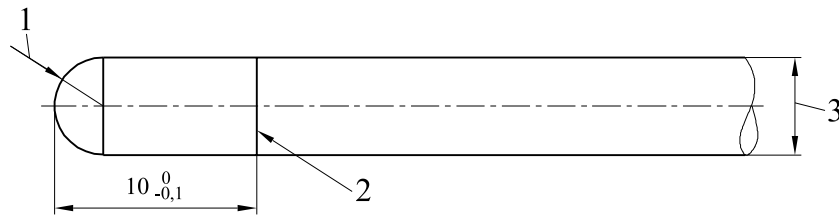
Figure 5 — V and irregular shaped openings template

## 4.5 Finger probes

Probes made from plastics or other hard, smooth material of diameters 7 mm and 12 mm with a full hemispherical end that can be mounted on a force-measuring device, see Figure 6.

Probe for assessing mesh made from plastics or other hard, smooth material as shown in Figure 7.

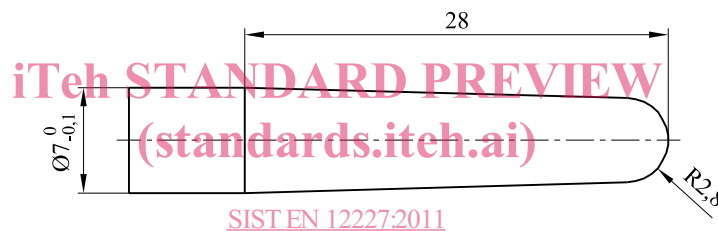
Dimensions in millimetres

**Key**

- 1 R3,5 or R6
- 2 Line scribed around circumference showing depth of penetration
- 3  $\varnothing 7 \begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$  mm or  $\varnothing 12 \begin{smallmatrix} 0,1 \\ 0 \end{smallmatrix}$  mm

**Figure 6 — 7 mm and 12 mm diameter probes**

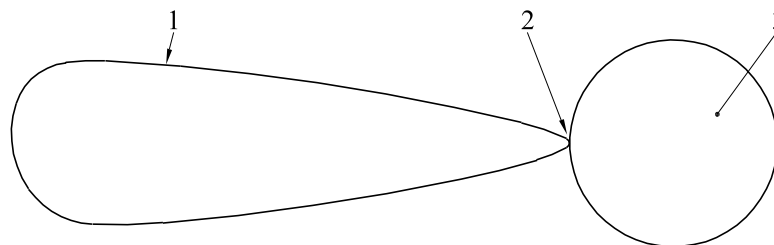
Dimensions in millimetres



SIST EN 12227:2011  
<https://standards.iteh.ai/catalog/standards/sist/4853823a-50f5-4e92-a799-18a3a1be2bab/sist-en-12227-2011>

**Figure 7 — 7 mm diameter probe for mesh****4.6 Protruding parts test equipment****4.6.1 Ball chain loop and spherical mass**

This comprises a ball chain loop attached to a spherical mass, see Figure 8.

**Key**

- 1 Ball chain loop (4.6.2)
- 2 Common fixing point at the spherical mass
- 3 Spherical mass (4.6.3)

**Figure 8 — Loop and mass**