



SLOVENSKI STANDARD

oSIST prEN 1930:2019

01-februar-2019

Izdelki za otroke - Varnostne pregrade - Varnostne zahteve in preskusne metode

Child use and care articles - Safety barriers - Safety requirements and test methods

Artikel für Säuglinge und Kleinkinder - Kinderschutzgitter - Sicherheitstechnische Anforderungen und Prüfverfahren

Articles de puériculture - Barrières de sécurité - Exigences de sécurité et méthodes d'essai

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: ^{oSIST prEN 1930:2019} prEN 1930
<https://standards.iteh.ai/catalog/standards/sist/5642aa5c-2145-42ff-ac00-6d4e4f6d82ef/osist-pren-1930-2019>

ICS:

97.190

Otroška oprema

Equipment for children

oSIST prEN 1930:2019

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[oSIST prEN 1930:2019](https://standards.iteh.ai/catalog/standards/sist/5642aa5c-2145-42ff-ac00-6d4e4f6d82ef/osist-pren-1930-2019)

<https://standards.iteh.ai/catalog/standards/sist/5642aa5c-2145-42ff-ac00-6d4e4f6d82ef/osist-pren-1930-2019>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
prEN 1930

January 2019

ICS 97.190

Will supersede EN 1930:2011

English Version

Child use and care articles - Safety barriers - Safety requirements and test methods

Articles de puériculture - Barrières de sécurité -
Exigences de sécurité et méthodes d'essai

Artikel für Säuglinge und Kleinkinder -
Kinderschutzgitter - Sicherheitstechnische
Anforderungen und Prüfverfahren

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 252.

If this draft becomes a European Standard, 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.

This draft European Standard was established by CEN 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-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword	5
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Test equipment	6
4.1 Tolerances for test equipment	6
4.2 Hip probe	6
4.3 Foothold template	7
4.4 Finger probes	8
4.4.1 Test probes with hemispherical end	8
4.4.2 Probe for mesh	8
4.4.3 Shape assessment probe	8
4.5 Ball chain loop and spherical mass	9
4.6 Feeler gauge	10
4.7 Small parts cylinder	11
4.8 Test frame	11
4.9 Rattle test equipment	12
4.10 Push-pull test equipment	13
4.11 Test impactor	16
5 Chemical hazards	18
5.1 General	18
5.2 Migration of certain elements	18
6 Conditioning	18
7 Mechanical hazards	19
7.1 General	19
7.2 Protective function	19
7.2.1 Protective height requirements	19
7.2.2 Test methods	19
7.3 Gaps	24
7.3.1 Requirements	24
7.3.2 Test method	24
7.4 Opening and closing system	25
7.4.1 Requirements	25
7.4.2 Test methods	25
7.5 Entrapment hazards	25
7.5.1 Requirements for openings - finger entrapment	25
7.5.2 Test method	26
7.6 Shearing and crushing hazards	26
7.6.1 Requirements	26
7.6.2 Test method	26
7.7 Protrusion hazards	26
7.7.1 Requirements	26
7.7.2 Test method	26
7.8 Choking and ingestion hazards	27

7.8.1	Requirements.....	27
7.8.2	Test methods.....	27
7.9	Suffocation hazards	28
7.10	Hazardous edges and points.....	28
7.10.1	General	28
7.10.2	Requirements for edges on tubes.....	28
7.10.3	Requirements for points.....	28
7.11	Structural integrity	29
7.11.1	Materials	29
7.11.2	Effectiveness of the fixing, locking devices and opening systems.....	29
7.12	Security of the safety barrier from impact	30
7.12.1	Requirements.....	30
7.12.2	Test method.....	30
8	Thermal hazards for safety barriers with fabric components.....	31
8.1	Requirements.....	31
8.2	Test method.....	31
9	Additional hazards	31
9.1	Use of a tool.....	31
9.2	Toys	31
10	Product information.....	32
10.1	General	32
10.2	Marking requirements.....	32
10.3	Purchase information	32
10.4	Instructions for use.....	33
10.4.1	General	33
10.4.2	Warnings.....	33
Annex A (informative)	Rationales.....	35
A.1	General	35
A.2	Chemical hazards (see Clause 5)	35
A.3	Mechanical hazards (see Clause 7).....	35
A.3.1	Protective height (see 7.2)	35
A.3.2	Gaps (see 7.3)	35
A.3.3	Opening and closing system (see 7.4)	35
A.3.4	Entrapment hazards (see 7.5).....	36
A.3.5	Shearing and crushing hazards (see 7.6).....	36
A.3.6	Protrusion hazards (see 7.7)	36
A.3.7	Choking and ingestion hazards (see 7.8)	36
A.3.8	Suffocation hazards (see 7.9)	36
A.3.9	Hazardous edges and points (see 7.10).....	36
A.3.10	Connecting screws (see 7.11.1.2).....	36
A.3.11	Effectiveness of the fixing, locking devices and opening systems (see 7.11.2)	36
A.3.12	Security of the safety barrier from impact (see 7.12)	37
A.4	Thermal hazards (see Clause 8)	37

prEN 1930:2019 (E)

A.5	Toys (see 9.2)	37
A.6	Purchase information (see 10.3)	37
	Bibliography	38

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[oSIST prEN 1930:2019](https://standards.iteh.ai/catalog/standards/sist/5642aa5c-2145-42ff-ac00-6d4e4f6d82ef/osist-pren-1930-2019)

<https://standards.iteh.ai/catalog/standards/sist/5642aa5c-2145-42ff-ac00-6d4e4f6d82ef/osist-pren-1930-2019>

European foreword

This document (prEN 1930:2019) has been prepared by Technical Committee CEN/TC 252 “Child care articles”, the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 1930:2011.

In comparison with the previous edition, the following technical modifications have been made:

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

[NOTE to the drafter: Add information about related documents or other parts in a series as necessary. A list of all parts in a series can be found on the CEN website.]

1 Scope

This document specifies the safety requirements and test methods for child safety barriers for domestic indoor use which are designed to be fitted across openings to limit a child's access inside the home and to prevent young children up to 24 months of age passing through.

This document does not apply to products designed to be fitted across windows.

If the safety barrier has other functions not covered in this European standard, reference should be made to the relevant European standard.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 71-2:2011+A1:2014, *Safety of toys - Part 2: Flammability*

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

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

opening system

system allowing access by opening the safety barrier or a section of the safety barrier or by removing the safety barrier

3.2

closing system

system restricting access by closing and/or locking the opening system

4 Test equipment

4.1 Tolerances for test equipment

Unless otherwise stated, the following tolerances apply:

- Forces: $\pm 5\%$ of the nominal force;
- Masses: $\pm 0,5\%$ of the nominal mass;
- Dimensions: $\pm 1,0$ mm of the nominal dimension;
- Angles: $\pm 2^\circ$ of the nominal angle;
- Positioning of loading pads: ± 5 mm;
- Duration of forces: (2 ± 1) s for durability tests; (10 ± 2) s for static load tests.

Unless otherwise specified, the test forces may be applied by any suitable device which does not adversely affect the results.

4.2 Hip probe

A probe made from POM plastic with the dimensions given in Figure 1.

Dimensions in millimetres

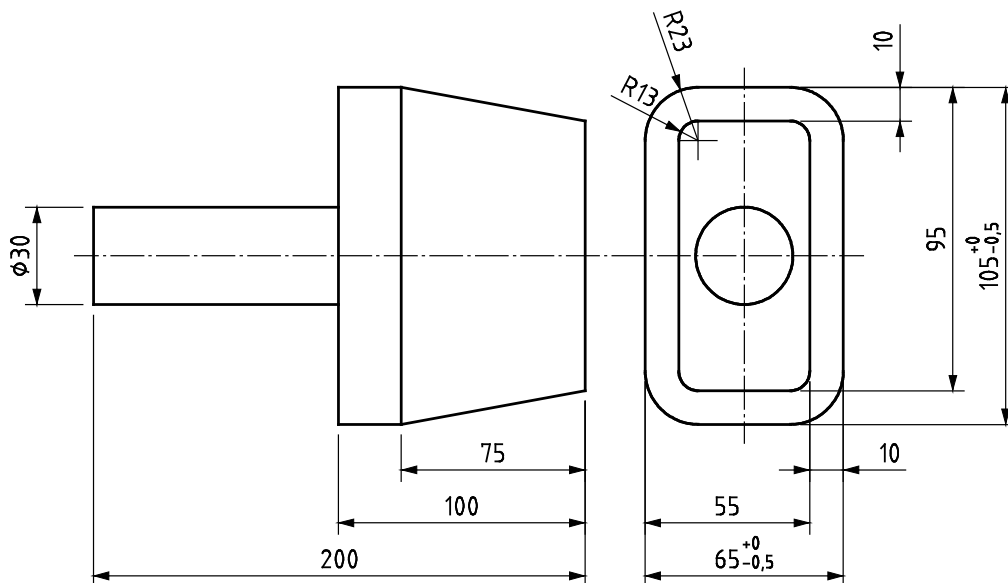


Figure 1 — Hip probe

4.3 Foothold template

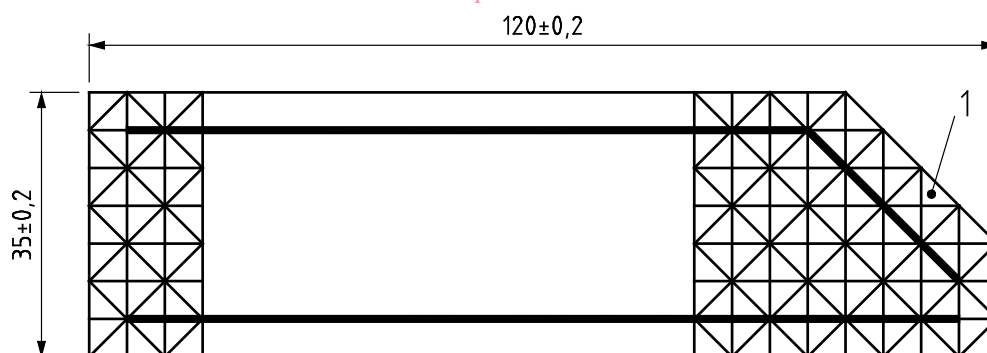
A strip of 10 mm thick transparent rigid material shall be cut to the shape as shown in Figure 2.

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

oSIST prEN 1930:2019

<https://standards.iteh.ai/catalog/standards/sist/5642aa5c-2145-42ff-ac00-6d4e4f6d82ef/osist-pren-1930-2019>

Dimensions in millimetres



Key

- 1 triangular cells plotted on a $5 \times 5 \pm 0,2$ grid

Figure 2 — Template for foothold test (example of left hand template)

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.

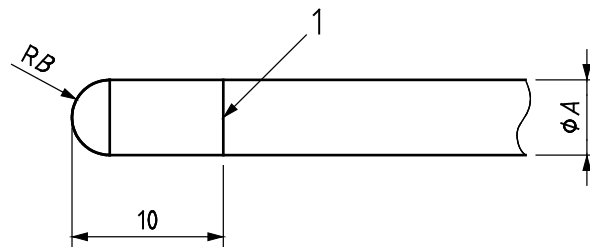
prEN 1930:2019 (E)

4.4 Finger probes

4.4.1 Test probes with hemispherical end

Probes shall be made from plastic or other hard, smooth material of diameters $(5_{-0,1}^0)$ mm, $(7_{-0,1}^0)$ mm and $(12_{0,1}^{+0,1})$ mm with a full hemispherical end that can be mounted on a force-measuring device, see Figure 3.

Dimensions in millimetres



Key

Probe type	5 mm probe	7 mm probe	12 mm probe
Diameter A	$(5_{-0,1}^0)$	$(7_{-0,1}^0)$	$(12_{0,1}^{+0,1})$
Radius RB	Half of diameter A	Half of diameter A	Half of diameter A
1	Line scribed around circumference showing depth of penetration		

Figure 3 — Test probes with hemispherical end

oSIST prEN 1930:2019

4.4.2 Probe for mesh

<https://standards.iteh.ai/catalog/standards/sist/5642aa5c-2145-42ff-ac00-6d4e4f6d82ef/osist-pren-1930-2019>

Mesh probe shall be made from plastic or other hard, smooth material as shown in Figure 4.

Dimensions in millimetres

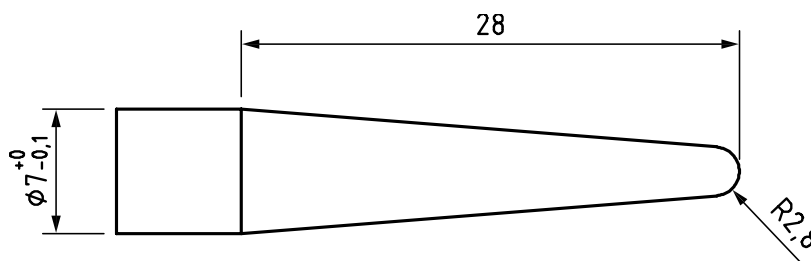
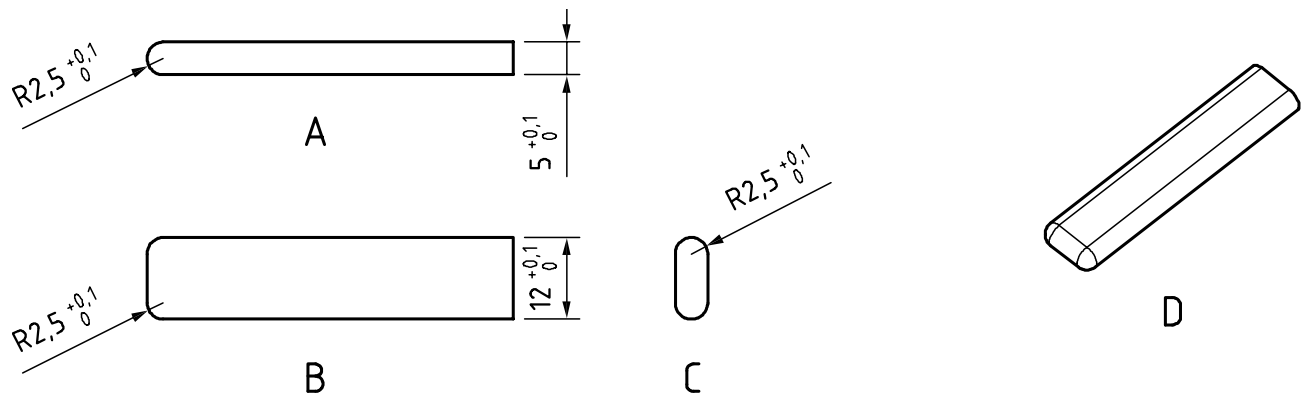


Figure 4 — Test probe for mesh

4.4.3 Shape assessment probe

Probes shall be made from plastics or other hard, smooth material with the dimensions shown in Figure 5.

Dimensions in millimetres

**Key**

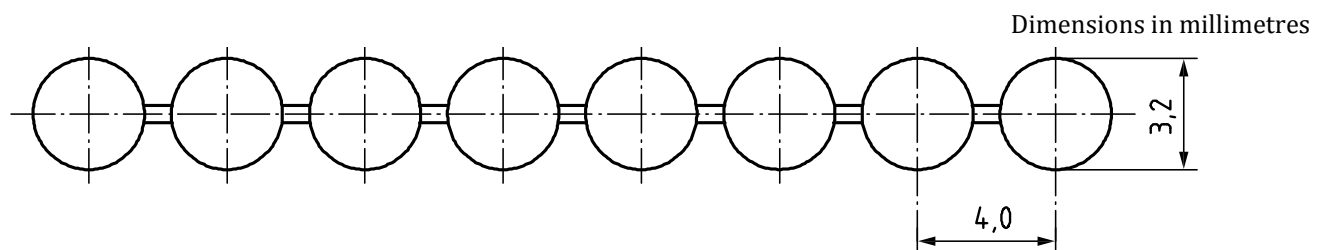
- A front view
- B top view
- C side view
- D 3D view

Figure 5 — Shape assessment probe**4.5 Ball chain loop and spherical mass**

This equipment comprises a ball chain loop attached to a spherical mass at a common fixing point.

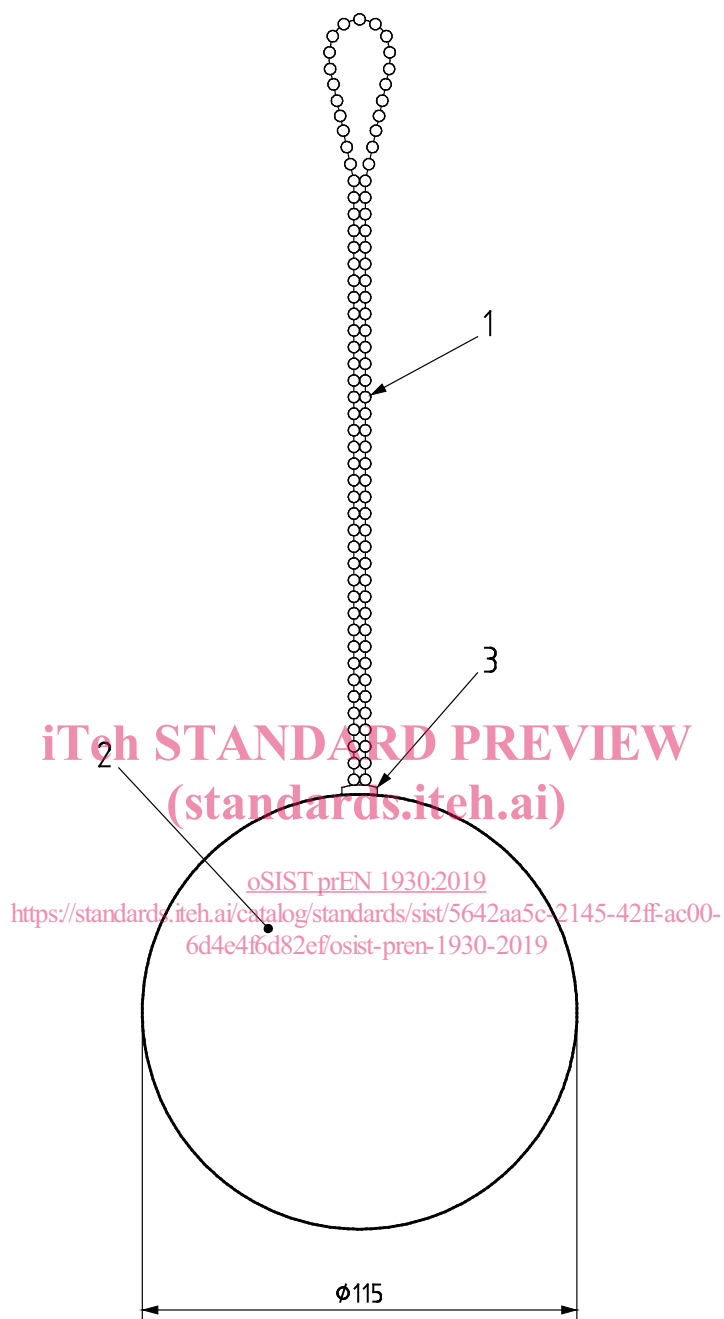
The ball chain comprises a maximum of 10 balls per 40 mm, equally distributed along the length of the chain when the chain is loaded with a mass of 2,5 kg.

The diameter of each ball is $(3,2 \pm 0,2)$ mm.

**Figure 6 — Ball chain**

The ball chain loop is formed by the ball chain entering the spherical mass at a common fixing point with a ball from each side of the chain in contact with each other. The external peripheral length of the ball chain loop shall be 400^{+5} mm. See Figure 7.

A smooth spherical mass of $(2,5 \pm 0,05)$ kg and a diameter of 115 mm.

**Key**

- 1 ball chain loop
- 2 spherical mass
- 3 common fixing point

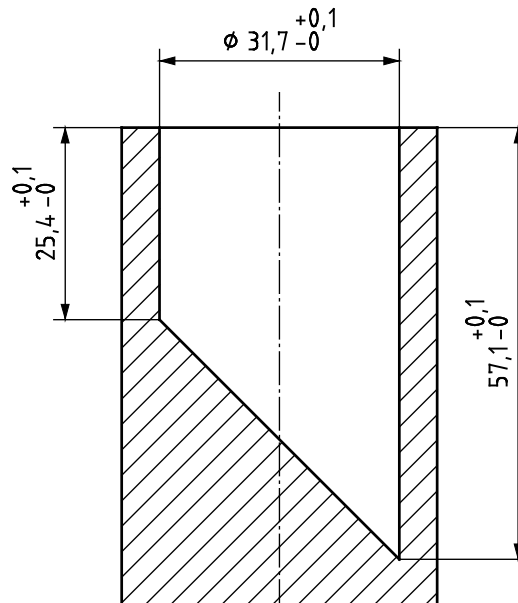
Figure 7 — Ball chain loop and spherical mass**4.6 Feeler gauge**

The feeler gauge shall have a thickness of $(0,4 \pm 0,02)$ mm, with the end to be inserted having a radius of approximately 3 mm.

4.7 Small parts cylinder

The cylinder shall have the dimensions given in Figure 8.

Dimensions in millimetres



iTeh STANDARD PREVIEW
 (standards.iteh.ai)
 Figure 8 — Small parts cylinder

4.8 Test frame

oSIST prEN 1930:2019

<https://standards.iteh.ai/catalog/standards/sist/5642aa5c-2145-42ff-ac00->

A rigid construction shall be made from 100 mm × 100 mm steel tube, which has a vertical beam adjustable in the horizontal direction within the frame made from 100 mm × 100 mm steel tube, see Figure 8.

The maximum deflection of the test frame and the adjustable vertical beam shall be 1 mm when a force of 1,000 N is applied in the positions and directions given in Figure 9. The application of the forces shall be done in the sequence of F, F1 and F2 and the measurements taken in the sequence M, M1 and M2.

One smooth, planed beech pad on each side of the test frame of consistent thickness throughout its length (50 ± 1) mm shall be fixed to the surface of the vertical beams to which the safety barrier is fitted.

The vertical beams and beech pads shall, once adjusted, not move or twist during the fitting and testing of the safety barrier.