

**SLOVENSKI STANDARD**  
**oSIST prEN 14960-2:2018**  
**01-september-2018**

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**Napihljiva igralna oprema - 2. del: Dodatne varnostne zahteve za trajno nameščene napihljive blazine za skakanje**

Inflatable play equipment - Part 2: Additional safety requirements for inflatable bouncing pillows intended for permanent installation

Aufblasbare Spielgeräte - Teil 2: Zusätzliche sicherheitstechnische Anforderungen für dauerhaft installierte aufblasbare Hüpfkissen

Équipements de jeu gonflables - Partie 2: Exigences de sécurité supplémentaires relatives aux coussins gonflables destinés à des installations permanentes

**Ta slovenski standard je istoveten z: prEN 14960-2**

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**ICS:**

97.190	Otroška oprema	Equipment for children
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English Version

**Inflatable play equipment - Part 2: Additional safety  
requirements for inflatable bouncing pillows intended for  
permanent installation**

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 136.

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.

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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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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EUROPÄISCHES KOMITEE FÜR NORMUNG

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<b>Contents</b>	<b>Page</b>
European foreword .....	3
Introduction .....	4
1 Scope.....	5
2 Normative references.....	5
3 Terms and definitions .....	5
4 Safety requirements .....	8
4.1 Materials .....	8
4.1.1 Fabrics.....	8
4.1.2 Dangerous substances and decorative finishes.....	8
4.2 Construction .....	8
4.2.1 Foundation .....	8
4.2.2 Structural integrity .....	8
4.2.3 Blowers - Safety requirements.....	9
4.2.4 Structural integrity .....	9
4.2.5 Electrical installations .....	9
4.2.6 Siting.....	9
4.3 Impact area .....	9
4.4 Signage.....	10
4.5 Supervision .....	10
5 Test methods and reports.....	10
6 Information to be provided by the manufacturer/supplier.....	10
6.1 General product information .....	10
6.2 Pre-information.....	11
6.3 Installation information.....	11
6.4 Operating information.....	11
6.5 Inspection and maintenance information .....	11
7 Inspection, maintenance and alteration .....	12
7.1 Inspection .....	12
7.1.1 General.....	12
7.1.2 Routine inspection .....	12
7.1.3 Annual inspection.....	12
7.2 Maintenance .....	13
7.2.1 General.....	13
7.2.2 Routine maintenance .....	13
7.2.3 Corrective maintenance .....	13
7.3 Alteration.....	13
8 Marking .....	13
Annex A (normative) Test method for grounding.....	14
Bibliography .....	15

## European foreword

This document (prEN 14960-2:2018) has been prepared by Technical Committee CEN/TC 136 “Sports, playground and other recreational facilities and equipment”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 14960:2013.

A list of all parts of EN 14960 can be found on the CEN website.

iTeh STANDARD PREVIEW  
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SIST EN 14960-2:2019

<https://standards.iteh.ai/catalog/standards/sist/c6c43c86-7050-47b3-89f5-ff4a465bca9f/sist-en-14960-2-2019>

## Introduction

Play is the means by which children discover and understand the world in which they live and is an essential element in a child's physical and mental growth.

It is important for children's rounded development that, through play, they arrive at an understanding of danger, which provides a basis for assessing safety in a variety of situations. The balance between challenge and safety is an important consideration.

The inflatable play equipment referred to in this document can provide different levels of challenge and excitement. This document aims to minimize the level of risk and the possibility of serious injury while allowing children to enjoy themselves when playing in or on inflatable equipment.

This document acknowledges the difficulties of addressing safety issues by age criteria alone because the ability to handle risk is based on the individual user's level of skill and not age. Moreover, users other than the intended age range might make use of the inflatable equipment, in which case, the provisions of this standard still apply.

It is not the purpose of the requirements of this document to affect a child's need to play nor to lessen the contribution that inflatable play equipment makes either to the child's development or meaningful play from an educational point of view.

Where inflatable play equipment is combined with other items of children's playground equipment, the relevant standards applying to the other items of equipment should also be consulted.

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## 1 Scope

This part of EN 14960 specifies additional safety requirements for inflatable bouncing pillows intended for permanent installation.

This part of the standard is applicable to inflatable play equipment intended for use by children fourteen years and under both individually and collectively.

This part of the standard specifies safety requirements for inflatable play equipment for which the primary activity is bouncing. It sets measures to address risks and also to minimize accidents to users for those involved in the design, manufacture and supply of inflatable play equipment.

It specifies information to be supplied with the equipment. The requirements have been laid down bearing in mind the risk factor based on available data.

This part of the standard specifies the requirements that will protect a child from hazards that he or she may be unable to foresee when using the equipment as intended, or in a manner that can be reasonably anticipated.

This part of the standard is not applicable to inflatables dealt with in prEN 14960-1:2017, inflatable water-borne play and leisure equipment, domestic inflatable toys, air-supported buildings, inflatables used solely for protection, inflatables used for rescue, or other types of inflatable toys where the primary activity is not bouncing or sliding.

## 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.

prEN 14960-1:2017, *Inflatable play equipment — Part 1: Safety requirements and test methods*

<https://standards.iteh.ai/catalog/standards/sist/c6c43c86-7050-47b3-89f5-ff4a465bca9f/sist-en-71-3>, *Safety of toys — Part 3: Migration of certain elements*

EN 1176-1:2017, *Playground equipment and surfacing - Part 1: General safety requirements and test methods*

EN 60529, *Degrees of protection provided by enclosures (IP Code) (IEC 60529)*

EN ISO 1421, *Rubber- or plastics-coated fabrics - Determination of tensile strength and elongation at break (ISO 1421)*

EN ISO 2411, *Rubber- or plastics-coated fabrics - Determination of coating adhesion (ISO 2411)*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in prEN 14960-1:2017 and the following apply.

Note 1 to entry: In order not to confine the application of this document to those items of equipment currently in use and to allow freedom of design for the manufacture of new equipment, only the fundamental forms of equipment and motion are defined.

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

- IEC Electropedia: available at <http://www.electropedia.org/>

## prEN 14960-2:2018 (E)

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

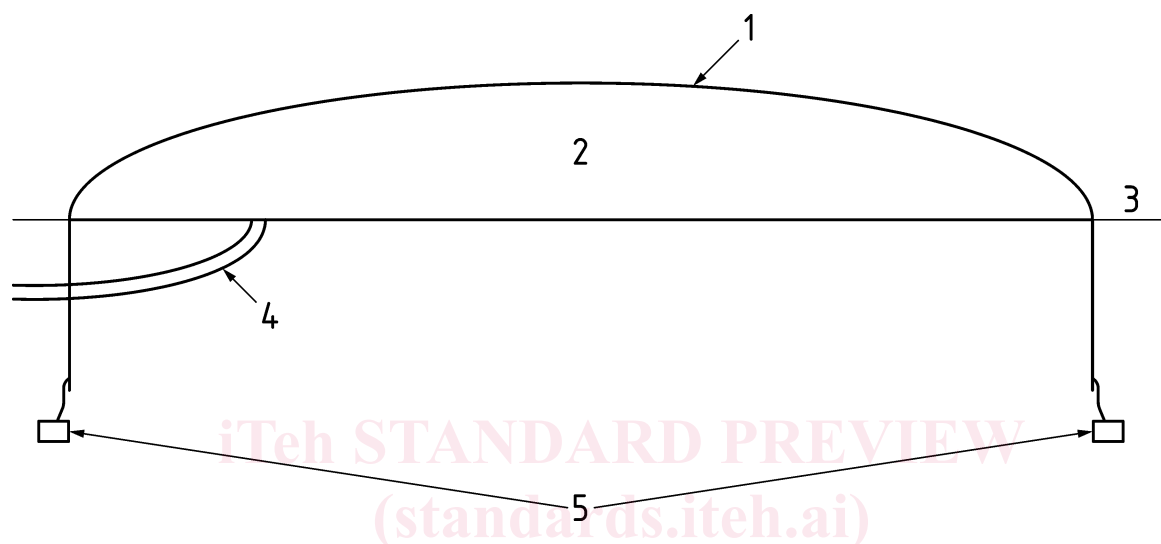
## 3.1

**inflatable bouncing pillow**

structure made of a single thickness sheet with edges permanently installed in the ground, relying on a continuous supply of air to form a pressurized void on which users can play and bounce

Note 1 to entry: This type of structure has no walls and enables access and egress on all sides.

Note 2 to entry: See Figure 1.

**Key**

- 1 sheet
- 2 pressurized void
- 3 ground level
- 4 air flow pipe
- 5 foundation

**Figure 1 — Inflatable bouncing pillow**

## 3.2

**blower**

powered machine used to inflate the structure continuously

## 3.3

**connection tube**

air feed pipe running underground, connected to the blower and discharging into the void

## 3.4

**controller**

person, organization or hirer (those that hire to others) having responsibility for overall control of the inspection and maintenance of the equipment

## 3.5

**operator**

person appointed by a controller to be in charge of the operation of the equipment at any time when it is available for use by the public



**3.6****inspection body**

organization, part of an organization or individual with the appropriate competence to carry out one or more of the following inspections:

- design review;
- assessment of conformity to design;
- initial testing;
- annual main inspection

**3.7****free height of fall**

greatest vertical distance from the clearly intended body support to the impact area below

**3.8****critical fall height**

maximum free height of fall, for which a surface provides an acceptable level of impact attenuation

**3.9****platform**

any surface on which a user can stand

**3.10****entrapment**

hazard in which a body, or part of a body, or clothing, can become trapped

**3.11****impact area**

area surrounding the open sides of the bouncing pillow

**3.12****user height**

maximum height of persons allowed to use the inflatable

**3.13****free space**

space in, on or around the inflatable that can be occupied by a user undergoing a movement forced by the equipment

**3.14****playing area**

space on the inflatable, clear of any hazard, intended for play

## 4 Safety requirements

### 4.1 Materials

#### 4.1.1 Fabrics

Fabrics shall be flame retardant.

Fabrics, and joins in fabrics, shall be of adequate tear and tensile strength for the weight of the intended user and have sufficient air retention to enable the inflatable, when pressurized, to resume its shape after distortion under load.

Fabrics of

- a) minimum tear strength 500 N (see the test method in prEN 14960-1:2017, Annex E),
- b) minimum tensile strength 3,850 N (in accordance with EN ISO 1421), and
- c) minimum coating adhesion 100 N (in accordance with EN ISO 2411)

shall be used in structural parts where force or stress is applied by the user.

#### 4.1.2 Dangerous substances and decorative finishes

Dangerous substances shall not be used for inflatable playground equipment in such a way that they can cause adverse health effects to the user. Paints and other decorative finishes shall conform to EN 71-3.

NOTE Attention is drawn to the provisions of European Regulation (EC) No. 1907/2006 [1]. Such materials include, for example, asbestos, lead, formaldehyde, coal tar oils, carbolineums and polychlorinated biphenyls (PCBs).

### 4.2 Construction

#### 4.2.1 Foundation

Foundations shall be designed in such a way that they do not present a hazard (e.g. tripping, impact etc.). The fabric shall be securely fastened to an underground foundation, e.g. concrete, timber, metal etc., and shall be a minimum of 400 mm deep.

#### 4.2.2 Structural integrity

Pressure inside the inflatable shall not exceed 0,7 kPa (70 mm water gauge) and shall be sufficient for the unit to meet the grounding test requirements.

The grounding test shall be carried out using 85 kg on a circle of 360 mm diameter at any point 1 m in from the edge of the fabric structure (see Annex A).

The gradient formed by the fabric shall not exceed an average angle of more than 20° with the ground.

The inflatable shall support the weight of the largest and/or heaviest intended user.