

Inflatable play equipment - Safety requirements and test methods

Inflatable play equipment - Safety requirements and test methods

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 14960:2006 sisaldab Euroopa standardi EN 14960:2006 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 21.12.2006 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 14960:2006 consists of the English text of the European standard EN 14960:2006.</p> <p>This document is endorsed on 21.12.2006 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p>Käsitlusala:</p> <p>This standard is applicable to inflatable play equipment intended for use by children fourteen years and under both individually and collectively. This standard specifies safety requirements for inflatable play equipment for which the primary activities are bouncing and sliding. It sets measures to address risks and also 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.</p>	<p>Scope:</p> <p>This standard is applicable to inflatable play equipment intended for use by children fourteen years and under both individually and collectively. This standard specifies safety requirements for inflatable play equipment for which the primary activities are bouncing and sliding. It sets measures to address risks and also 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.</p>
---	---

ICS 97.190, 97.200.50

Võtmesõnad:

ICS 97.190; 97.200.50

English Version

Inflatable play equipment - Safety requirements and test methods

Équipements de jeux gonflables - Exigences de sécurité et méthodes d'essai

Aufblasbare Spielgeräte - Sicherheitstechnische Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 6 October 2006.

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, 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.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Contents

Page

Foreword.....	4
Introduction.....	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions.....	7
4 Safety requirements.....	9
4.1 Materials.....	9
4.1.1 Fabrics.....	9
4.1.2 Thread.....	9
4.1.3 Netting.....	10
4.1.4 Ropes.....	10
4.1.5 Zips.....	10
4.1.6 Dangerous substances and decorative finishes.....	11
4.2 Design.....	11
4.2.1 Anchorage.....	11
4.2.2 Structural Integrity.....	12
4.2.3 Access/egress.....	12
4.2.4 Blowers.....	15
4.2.5 Entrapment.....	15
4.2.6 Hard objects, sharp angles and edges.....	20
4.2.7 Electrical installations.....	20
4.2.8 Siting.....	20
4.2.9 Containment.....	23
4.2.10 Wall heights on slopes.....	24
4.2.11 Run-out.....	25
4.2.12 Ventilation.....	25
4.3 Number of users.....	25
4.4 Supervision.....	25
5 Test methods and reports.....	26
6 Information to be provided by the supplier/manufacturer.....	26
6.1 General product information.....	26
6.2 Pre-information.....	26
6.3 Installation information.....	26
6.4 Operating information.....	27
6.5 Inspection and maintenance information.....	27
7 Inspection, maintenance and alteration.....	28
7.1 Inspection.....	28
7.1.1 Routine Inspection.....	28
7.1.2 Annual inspection.....	28
7.2 Maintenance.....	29
7.2.1 General.....	29
7.2.2 Routine maintenance.....	29
7.2.3 Corrective maintenance.....	29
7.3 Alteration.....	29
8 Marking.....	30
9 Documentation.....	30
Annex A (normative) Calculation of number of anchor-points.....	31
Annex B (informative) The Beaufort Scale of wind force.....	32
Annex C (normative) Test method for grounding.....	33
Annex D (normative) Test methods for entrapment.....	34

D.1	Tolerances.....	34
D.2	Head and neck entrapment in completely bound openings	35
D.2.1	Probes.....	35
D.2.2	Procedure	36
D.3	Head and neck entrapment in partially bound and V-shaped openings	36
D.3.1	Apparatus	36
D.3.2	Procedure	37
D.4	Entrapment of clothing	39
D.4.1	Apparatus (Figure D.5).....	39
D.4.2	Procedure	40
D.5	Entrapment of fingers	41
Annex E	(normative) Test method for tear strength	42
E.1	Maximum value tongue tear, apparatus.....	42
E.2	Preparation of test specimens	42
E.3	Conditioning	43
E.4	Preconditioning	43
E.5	Characteristics of test atmospheres	43
E.6	Methods of conditioning.....	43
E.7	Procedure	44
E.8	Calculation and expression of results	45
E.9	Test report.....	46
	Bibliography.....	47

Foreword

This document (EN 14960:2006) has been prepared by Technical Committee CEN/TC 136 "Sports, playground and other recreational equipment", the secretariat of which is held by DIN.

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 May 2007, and conflicting national standards shall be withdrawn at the latest by May 2007.

It is not the purpose of the requirements of this Standard 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.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, 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.

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.

Inflatable play equipment referred to in this Standard can provide different levels of challenge and excitement. This European Standard 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 standard acknowledges the difficulties of addressing safety issues by age criteria alone because the ability to handle risk is based on the individual users' level of skill and not age. Also users other than the intended age range will make use of the inflatable equipment, in which case, the provisions of this standard still apply.

1 Scope

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

This standard specifies safety requirements for inflatable play equipment for which the primary activities are bouncing and sliding. It sets measures to address risks and also 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 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 Standard is not applicable to 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 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 71-3, *Safety of toys - Part 3: Migration of certain elements*

EN 1177, *Impact absorbing playground surfacing — Safety requirements and test methods*

EN 60529, *Degrees of protection provided by enclosures (IP code) (IEC 60529:1989)*

EN ISO 1421:1998, *Rubber- or plastics-coated fabrics - Determination of tensile strength and elongation at break (ISO 1421:1998)*

EN ISO 2307, *Fibre ropes - Determination of certain physical and mechanical properties (ISO 2307:2005)*

EN ISO 2411:2000, *Rubber- or plastics-coated fabrics — Determination of coating adhesion (ISO 2411:2000)*

EN ISO 9554, *Fibre ropes - General specifications (ISO 9554:2005)*

EN ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:2005)*