

Irish Standard I.S. EN 14960-1:2019

Inflatable play equipment - Part 1: Safety requirements and test methods

© CEN 2019 No copying without NSAI permission except as permitted by copyright law.

I.S. EN 14960-1:2019

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R.~xxx: Standard~Recommendation-recommendation~based~on~the~consensus~of~an~expert~panel~and~subject~to~public~consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on: Published:

EN 14960-1:2019 2019-05-15

This document was published ICS number:

under the authority of the NSAI and comes into effect on: 97.190

97.200.50

NOTE: If blank see CEN/CENELEC cover page

NSAI T +353 1 807 3800 Sales:

 1 Swift Square,
 F +353 1 807 3838
 T +353 1 857 6730

 Northwood, Santry
 E standards@nsai.ie
 F +353 1 857 6729

 Dublin 9
 W NSAI.ie
 W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

This is a free page sample. Access the full version online.

National Foreword

I.S. EN 14960-1:2019 is the adopted Irish version of the European Document EN 14960-1:2019, Inflatable play equipment - Part 1: Safety requirements and test methods

This document does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

For relationships with other publications refer to the NSAI web store.

Compliance with this document does not of itself confer immunity from legal obligations.

In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

This is a free page sample. Access the full version online.

This page is intentionally left blank

EUROPEAN STANDARD

EN 14960-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2019

ICS 97.190; 97.200.50

Supersedes EN 14960:2013

English Version

Inflatable play equipment - Part 1: Safety requirements and test methods

Équipements de jeu gonflables - Partie 1 : Exigences de sécurité et méthodes d'essai

Aufblasbare Spielgeräte - Teil 1: Sicherheitstechnische Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 15 April 2019.

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-CENELEC 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-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.



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

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

Cont	ents	Page
Europ	ean foreword	4
Introd	uction	5
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	Safety requirements	10
4.1	Materials	10
4.1.1	Fabrics	10
4.1.2	Thread	10
4.1.3	Netting	10
4.1.4	Ropes	11
4.1.5	Zips	
4.1.6	Dangerous substances and decorative finishes	11
4.2	Design	
4.2.1	Anchorage	
4.2.2	Structural integrity	
4.2.3	Access/egress	
4.2.4	Blowers	
4.2.5	Entrapment	
4.2.6	Hard objects, sharp angles and edges	
4.2.7	Electrical installations	
4.2.8	Siting	
4.2.9	Containment	
	Wall heights on slopes	
	Run-out	
	Ventilation	
4.2.12 4.3	Number of users	
4.3 4.4	Supervision	
4.4	•	
5	Test methods and reports	
6	Information to be provided by the supplier/manufacturer	
6.1	General product information	
6.2	Pre-information	
6.3	Installation information	
6.4	Operating information	
6.5	Inspection and maintenance information	28
7	Inspection, maintenance and alteration	
7.1	Inspection	28
7.1.1	General	
7.1.2	Routine Inspection	28
7.1.3	Annual inspection	29
7.2	Maintenance	29
7.2.1	General	29
7.2.2	Routine maintenance	29
7.2.3	Corrective maintenance	30

7.3	Alteration	30
8	Marking	30
9	Documentation	31
Anne	ex A (normative) Calculation of number of anchor-points	32
Anne	ex B (informative) The Beaufort Scale of wind force	33
Anne	ex C (normative) Test method for grounding	34
Anne	ex D (normative) Test methods for entrapment	35
D.1	General	35
D.2	Head and neck entrapment	35
D.3	Entrapment of clothing (Toggle test)	42
D.4	Finger entrapment	44
Anne	ex E (normative) Test method for tear strength	46
E.1	Maximum value tongue tear, apparatus	46
E.2	Preparation of test specimens	46
E.3	Conditioning	46
E.4	Preconditioning	47
E.5	Characteristics of test atmospheres	47
E.6	Methods of conditioning	47
E.7	Procedure	47
E.8	Calculation and expression of results	48
E.9	Test report	50
Bibli	iography	51

European foreword

This document (EN 14960-1:2019) 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 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 November 2019, and conflicting national standards shall be withdrawn at the latest by November 2019.

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

This document supersedes – together with EN 14960-2:— 1 and EN 14960-3:— 1 – EN 14960:2013.

In relation to EN 14960:2013, the following main changes have been made:

- a) changes with regard to inflatables sited on hard standing;
- b) minor editing to improve the content accuracy of the document;
- c) splitting this standard into the following three parts:
 - 1) EN 14960-1, Inflatable play equipment Part 1: Safety requirements and test methods;
 - 2) EN 14960-2, Inflatable play equipment Part 2: Additional safety requirements for Inflatable Bouncing Pillows for permanent installation (in preparation);
 - 3) EN 14960-3, *Inflatable play equipment Part 3: Specific safety requirements and test methods for inflatable snappies* (in preparation).

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: 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 the United Kingdom.

 $[{]f 1}$ Both standards are under development at the time of publication.

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 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 user's level of skill and not age. Moreover, users other than the intended age range will 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 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.

1 Scope

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

This document specifies safety requirements for inflatable play equipment for which the primary activities are bouncing and sliding. 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 document 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 document 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 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 71-3, Safety of toys — Part 3: Migration of certain elements

EN 1177, Impact attenuating playground surfacing — Determination of critical fall height

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 2307, Fibre ropes — Determination of certain physical and mechanical properties (ISO 2307)

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

EN ISO 9554, Fibre ropes — General specifications (ISO 9554)

EN ISO/IEC 17025:2017, General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025:2017)

3 Terms and definitions

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

NOTE In order not to confine the application of this European Standard to those items of equipment currently in use and hence allow freedom of design for the manufacture of new equipment, only the fundamental forms of equipment and motion are listed.



This is a free preview	 Purchase the entire 	e publication at the link below:
------------------------	---	----------------------------------

Product Page

- Dooking for additional Standards? Visit Intertek Inform Infostore
- Dearn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation