BS EN 14960:2013



BSI Standards Publication

Inflatable play equipment — Safety requirements and test methods



BS EN 14960:2013 BRITISH STANDARD

This is a preview of "BS EN 14960:2013". Click here to purchase the full version from the ANSI store.

This British Standard is the UK implementation of EN 14960:2013. It supersedes BS EN 14960:2006 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee SW/65, Children's playground equipment.

A list of organizations represented on this committee can be obtained on request to its secretary.

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

© The British Standards Institution 2013. Published by BSI Standards Limited 2013

ISBN 978 0 580 74823 3

ICS 97.190; 97.200.50

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 September 2013.

Amendments issued since publication

Date Text affected

ENI 44060

This is a preview of "BS EN 14960:2013". Click here to purchase the full version from the ANSI store.

EUROPÄISCHE NORM

September 2013

ICS 97.190; 97.200.50

Supersedes EN 14960:2006

English Version

Inflatable play equipment - Safety requirements and test methods

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

Aufblasbare Spielgeräte - Sicherheitstechnische Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 29 June 2013.

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, 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: Avenue Marnix 17, B-1000 Brussels

Cont	ents	age
Forewo	ord	4
Introdu	iction	5
1	Scope	6
2	Normative references	
3	Terms and definitions	7
4	Safety requirements	۵
 4.1	Materials	
4.1.1	Fabrics	
4.1.2	Thread	
4.1.3	Netting	
4.1.4	Ropes	
4.1.5	Zips	
4.1.6	Dangerous substances and decorative finishes	
4.2	Design	
4.2.1	Anchorage	
4.2.2	Structural Integrity	
4.2.3	Access/egress	
4.2.4 4.2.5	Blowers Entrapment	
4.2.5 4.2.6	Hard objects, sharp angles and edges	
4.2.6 4.2.7	Electrical installations	
4.2. <i>1</i> 4.2.8	Siting	
4.2.0 4.2.9	Containment	
4.2.9 4.2.10	Wall heights on slopes	
4.2.10 4.2.11	Run-out	
4.2.11 4.2.12	Ventilation	
4.2.12 4.3	Number of users	
4.3 4.4	Supervision	
	·	
5	Test methods and reports	
6	Information to be provided by the supplier/manufacturer	. 26
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	. 28
7.1	Inspection	
7.1.1	Routine Inspection	. 28
7.1.2	Annual inspection	. 29
7.2	Maintenance	. 29
7.2.1	General	. 29
7.2.2	Routine maintenance	_
7.2.3	Corrective maintenance	
7.3	Alteration	. 30
8	Marking	. 30
9	Documentation	. 31
Annex	A (normative) Calculation of number of anchor-points	. 32
Annex	B (informative) The Beaufort Scale of wind force	. 33
Annex	C (normative) Test method for grounding	. 34

Annex	U (normative) Test methods for entrapment	. პ5	
D.1	General		
D.2	Head and neck entrapment	.35	
D.2.1	Completely bound openings	.35	
D.2.2	Partially bound and V-shaped openings	.36	
D.3	Entrapment of clothing (Toggle test)	.41	
D.3.1	Apparatus		
D.3.2	Procedure		
D.4	Finger entrapment	.43	
D.4.1	Apparatus	.43	
D.4.2	Procedure		
Annex E (normative) Test method for tear strength45			
E.1	Maximum value tongue tear, apparatus	.45	
E.2	Preparation of test specimens	.45	
E.3	Conditioning		
E.4	Preconditioning		
E.5	Characteristics of test atmospheres		
E.6	Methods of conditioning		
E.7	Procedure		
E.8	Calculation and expression of results		
E.9	Test report		
Riblica	raphy		
שַטווטוט	olulivyi apity		

Foreword

This document (EN 14960:2013) 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 March 2014, and conflicting national standards shall be withdrawn at the latest by March 2014.

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 14960:2006.

In relation to EN 14960:2006, the following main changes have been made:

- changes with regard to the run outs on slides to correct one area where the contents of the original standard proved debatable;
- minor amendments to improve safety aspects together with facilitating clarity of interpretation;
- minor editing to improve the content accuracy of the document;
- amendments reflecting the changes with regard to entrapment as a result of the revision and re-issue of EN 1176 in 2008.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the 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.

The inflatable play equipment referred to in this standard can provide different levels of challenge and excitement. This European Standard aims to minimise 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 European 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 to minimise 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 documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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/A1)

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)

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