DIN EN 71-8



ICS 97.200.50

Supersedes DIN EN 71-8:2011-11

Safety of toys – Part 8: Activity toys for domestic use; English version EN 71-8:2018, English translation of DIN EN 71-8:2018-03

Sicherheit von Spielzeug – Teil 8: Aktivitätsspielzeug für den häuslichen Gebrauch; Englische Fassung EN 71-8:2018, Englische Übersetzung von DIN EN 71-8:2018-03

Sécurité des jouets – Partie 8: Jouets d'activité à usage familial; Version anglaise EN 71-8:2018, Traduction anglaise de DIN EN 71-8:2018-03

Document comprises 71 pages

Translation by DIN-Sprachendienst.

In case of doubt, the German-language original shall be considered authoritative.



A comma is used as the decimal marker.

National foreword

This document (EN 71-8:2018) has been prepared by Technical Committee CEN/TC 52 "Safety of toys" (Secretariat: DS, Denmark).

The responsible German body involved in its preparation was *DIN-Normenausschuss Sicherheitstechnische Grundsätze* (DIN Standards Committee Safety Design Principles), Working Committee NA 095-05-01 AA "Safety of toys".

The DIN document corresponding to the international document referred to in this document is as follows:

ISO 3864-1 DIN ISO 3864-1

The publication Beuth Practice, *Playground equipment in Europe — An illustrated guide to European Standards EN 1176* [4] mentioned in the Bibliography is available from Beuth Verlag in German as *Spielgeräte — Sicherheit auf Europas Spielplätzen*.

Amendments

This standard differs from DIN EN 71-8:2011-11 as follows:

- a) in the Scope, the list of exclusion has been revised; in particular, the exclusion of (toy) pools has been specified more precisely and the exclusion of trampolines for domestic use has been added;
- b) the definitions of "forced movement", "slide" and "swing" have been modified and the terms "resilient material", "attachment slide" and "declined plane" have been added;
- c) subclause 4.1.7 "Water accumulation" has been added;
- d) in subclause 4.3.1, requirements on head and neck entrapment have been revised;
- e) subclause 4.5.1 "General" has been added specifying that certain declined planes are exempted from the requirements in subclause 4.5;
- f) in subclause 4.5.4 (former subclause 4.5.1), the requirements that slides shall consist at least of a starting section, a sliding section and a run-out section and that the junction between sliding section and run-out section shall be a continuous curve have been added;
- g) in subclause 4.6.8.2, the requirements on the impact from swing elements have been revised;
- h) in subclause 4.6.8.3, the requirements on the geometry and design of swing elements have been revised;
- i) in subclause 5.1.2, the warning, marking and instructions requirements for paddling pools have been revised;
- j) in subclause 6.1, the number of users on slides for stability and strength tests (see Table 4) has been revised;
- k) in subclause 6.2, the stability tests for slides (see subclause 6.2.3) and see-saws (see subclause 6.2.5) have been revised;

- l) in subclause 6.3, a requirement that it is to be ensured that the toy element/toy is not materially affected by the test equipment during the strength tests and that tests are to be performed on undamaged toy elements/toys has been added (see subclause 6.3.1); the strength test for swings with a crossbeam height of 1 200 mm or less above the ground has been revised;
- m) in subclause 6.5, the test for head and neck entrapment has been revised;
- n) in subclause 6.6, the toggle test has been revised;
- o) in Annex A, the rationales on activity toys (see A.1), entrapment (see A.7) and swings (see A.10) have been revised and new rationales on drowning hazards (see A.14) and warnings (see A.15) have been added;
- p) additional literature and standards have been added to the Bibliography.

Previous editions

DIN EN 71-1: 1979-04, 1983-08, 1989-07, 1998-11 DIN EN 71-8: 2003-10, 2006-09, 2009-12, 2011-11

DIN EN 71-8/A2: 2006-03 DIN 66070-1: 1972-02, 1975-09

DIN 66070-2: 1972-02

National Annex NA

(informative)

Bibliography

DIN ISO 3864-1 Graphical symbols — Safety colours and safety signs — Part 1: Design principles for safety signs and safety markings

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 71-8

January 2018

ICS 97.200.50

Supersedes EN 71-8:2011

English Version

Safety of toys - Part 8: Activity toys for domestic use

Sécurité des jouets - Partie 8: Jouets d'activité à usage familial

Sicherheit von Spielzeug - Teil 8: Aktivitätsspielzeug für den häuslichen Gebrauch

This European Standard was approved by CEN on 15 October 2017.

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

© 2018 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN 71-8:2018 E

Con	ontents P		
Europ	uropean foreword5		
1	Scope	7	
2	Normative references	7	
3	Terms and definitions	8	
4	Requirements	11	
4.1	General (see A.2)	11	
4.1.1	Assembly		
4.1.2	Static strength		
4.1.3	Maximum height (see A.3)		
4.1.4	Corners and edges (see A.4)		
4.1.5	Protruding parts		
4.1.6	Diameter of ropes and other means of suspension		
4.1.7	Water accumulation (see A.14)		
4.2	Barriers, handrails and ladders and similar means of access to activity toys		
4.2.1	Barriers and handrails preventing a child from falling down (see 6.5.1, A.5)		
4.2.2	Ladders and similar means of access to activity toys (see A.6)		
4.3	Entrapment (see A.7)		
4.3.1	Entrapment of head and neck		
4.3.2 4.3.3	Entrapment of clothing and hairEntrapment of feet		
4.3.3 4.3.4	Entrapment of fingers		
4.3.4 4.4	Stability of activity toys other than slides, swings and activity toys with crossbean		
4.4	and see-saws		
4.4.1	General		
4.4.2	Stability of activity toys with a free height of fall of 600 mm or less		
4.4.3	Stability of activity toys with a free height of fall of more than 600 mm		
4.5	Slides (see A.8)		
4.5.1	General		
4.5.2	Stability of slides		
4.5.3	Retaining sides for slides (see A.9)		
4.5.4	Starting, sliding and run-out sections on slides		
4.6	Swings (see A.10)		
4.6.1	Stability of swings and other activity toys with crossbeams		
4.6.2	Static strength of crossbeams, swing devices and suspension connectors	22	
4.6.3	Swings intended for children under 36 months	22	
4.6.4	Minimum clearance between adjacent swing elements, and adjacent structures	22	
4.6.5	Lateral stability of swing elements	23	
4.6.6	Minimum clearance between swing elements and the ground (see A.11)	24	
4.6.7	Suspension connectors and swing devices		
4.6.8	Impact, geometry and design of swing elements		
4.7	See-saws		
4.7.1	Stability of see-saws		
4.7.2	Seat/stand height		
4.7.3	Restraint of motion		
4.7.4	Pinching and crushing of fingers and toes		
475	Hand supports	26	

4.8	Carousels and rocking activity toys (see A.12)	27
4.9	Paddling pools	27
4.9.1	Static strength of paddling pools with non-inflatable walls	27
4.9.2	Paddling pools with inflatable walls	27
5	Warnings, markings, and instructions	27
5.1	Warnings and markings	
5.1.1	General	
5.1.2	Paddling pools	
5.2	Assembly and installation instructions	
5.3	Maintenance	29
6	Test methods	29
6.1	General	29
6.2	Stability	30
6.2.1	Stability of activity toys with a free height of fall of 600 mm or less (see 4.4.2 and 4.8).	30
6.2.2	Stability of activity toys with a free height of fall of more than 600 mm (see 4.4.3)	32
6.2.3	Stability of slides (see 4.5.2)	
6.2.4	Stability of swings and other activity toys with crossbeams (see 4.6.1)	33
6.2.5	Stability of see-saws (see 4.7.1)	34
6.3	Static strength	
6.3.1	General	
6.3.2	Strength of activity toys other than swings and paddling pools (see 4.1.2 and 4.8)	35
6.3.3	Strength of swings (see 4.6.2)	
6.4	Dynamic strength of barriers and handrails (see 4.2.1)	
6.4.1	Principle	37
6.4.2	Apparatus	
6.4.3	Procedure	
6.5	Test for head and neck entrapment (see 4.3.1)	
6.5.1	Head and neck entrapment in accessible completely bound openings (see 4.2.1, 4.3.1	
	a) and 4.3.1 c))	
6.5.2	Head and neck entrapment in partially bound and V-shaped openings (see 4.3.1 d))	
6.6	Toggle test (see 4.3.2)	
6.6.1	Principle	
6.6.2	Apparatus	
6.6.3	Procedure	
6.7	Measurements of sliding and run-out sections on slides (see 4.5.4)	50
6.7.1	Measurement of inclination of the sliding section on slides (see 4.5.4 f))	50
6.7.2	Measurement of the minimum angle along the sliding section and the run-out	=0
	section on slides (see 4.5.4 g))	
6.8	Diameter of ropes and other means of suspension (see 4.1.6)	
6.9	Determination of impact from swing elements (see 4.6.8.2)	
6.9.1	Principle	
6.9.2	Apparatus	
6.9.3	Preparations	
6.9.4	Testing	
6.10	Static load test for paddling pools with non-inflatable walls (see 4.9.1)	56
6.11	Measurement of the height of falling protection of swings with double seats and examination of gaps between the swing seat and the falling protection	56
Anne	x A (informative) Rationale	
A.1	Activity toys (see scope)	
A.2	General requirements (see 4.1)	58

DIN EN 71-8:2018-03 EN 71-8:2018 (E)

A.3	Maximum height (see 4.1.3)	58
A.4	Corners and edges (see 4.1.4)	58
A.5	Barriers (see 4.2)	58
A.6	Ladders and similar means of access to activity toys (see 4.2.2)	59
A.7	Entrapment (see 4.3)	59
A.8	Slides (see 4.5)	59
A.9	Retaining sides for slides (see 4.5.3)	60
A.10	Swings (see 4.6)	60
A.11	Clearance between swing elements and the ground for crossbeams with a maximum height of 1 200 mm (see 4.6.6)	61
A.12	Rocking activity toys and similar toys (see 4.8)	61
A.13	Stability of swings and other activity toys with crossbeams (see 6.2.4.1.1)	61
A.14	Drowning hazards (see 4.1.7)	61
A.15	Warnings (see Clause 5)	62
Annex	B (informative) Significant technical changes between this European Standard and the previous version	63
Annex	ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2009/48/EC aimed to be covered	65
Riblio	granhy	66