

MÄNGUASJADE OHUTUS. OSA 8: TEGEVUSMÄNGUASJAD
KODUSEKS KASUTAMISEKS

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 71-8:2018 sisaldab Euroopa standardi EN 71-8:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 71-8:2018 consists of the English text of the European standard EN 71-8:2018.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 10.01.2018.	Date of Availability of the European standard is 10.01.2018.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 97.200.50

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:

Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

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

Contents

Page

European foreword.....	5
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	11
4.1.2 Static strength	11
4.1.3 Maximum height (see A.3)	11
4.1.4 Corners and edges (see A.4)	11
4.1.5 Protruding parts.....	11
4.1.6 Diameter of ropes and other means of suspension	12
4.1.7 Water accumulation (see A.14).....	12
4.2 Barriers, handrails and ladders and similar means of access to activity toys.....	12
4.2.1 Barriers and handrails preventing a child from falling down (see 6.5.1, A.5).....	12
4.2.2 Ladders and similar means of access to activity toys (see A.6)	12
4.3 Entrapment (see A.7).....	14
4.3.1 Entrapment of head and neck.....	14
4.3.2 Entrapment of clothing and hair	15
4.3.3 Entrapment of feet.....	16
4.3.4 Entrapment of fingers.....	16
4.4 Stability of activity toys other than slides, swings and activity toys with crossbeams, and see-saws	16
4.4.1 General.....	16
4.4.2 Stability of activity toys with a free height of fall of 600 mm or less	17
4.4.3 Stability of activity toys with a free height of fall of more than 600 mm	17
4.5 Slides (see A.8)	17
4.5.1 General.....	17
4.5.2 Stability of slides	17
4.5.3 Retaining sides for slides (see A.9).....	17
4.5.4 Starting, sliding and run-out sections on slides.....	18
4.6 Swings (see A.10)	21
4.6.1 Stability of swings and other activity toys with crossbeams.....	21
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	24
4.6.8 Impact, geometry and design of swing elements.....	25
4.7 See-saws	26
4.7.1 Stability of see-saws.....	26
4.7.2 Seat/stand height.....	26
4.7.3 Restraint of motion.....	26
4.7.4 Pinching and crushing of fingers and toes	26
4.7.5 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	27
5.1.1	General	27
5.1.2	Paddling pools	27
5.2	Assembly and installation instructions	28
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)	32
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	35
6.3.1	General	35
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)	37
6.4	Dynamic strength of barriers and handrails (see 4.2.1)	37
6.4.1	Principle	37
6.4.2	Apparatus	37
6.4.3	Procedure	38
6.5	Test for head and neck entrapment (see 4.3.1)	38
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))	38
6.5.2	Head and neck entrapment in partially bound and V-shaped openings (see 4.3.1 d))	42
6.6	Toggle test (see 4.3.2)	47
6.6.1	Principle	47
6.6.2	Apparatus	47
6.6.3	Procedure	48
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 section on slides (see 4.5.4 g))	50
6.8	Diameter of ropes and other means of suspension (see 4.1.6)	51
6.9	Determination of impact from swing elements (see 4.6.8.2)	52
6.9.1	Principle	52
6.9.2	Apparatus	52
6.9.3	Preparations	54
6.9.4	Testing	54
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
Annex A (informative)	Rationale	58
A.1	Activity toys (see scope)	58
A.2	General requirements (see 4.1)	58

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
Bibliography	66

European foreword

This document (EN 71-8:2018) has been prepared by Technical Committee CEN/TC 52 “Safety of toys”, the secretariat of which is held by DS.

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 July 2018, and conflicting national standards shall be withdrawn at the latest by July 2018.

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 EN 71-8:2011.

This European Standard has been prepared under a standardization request M/445 given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2009/48/EC.

For relationship with EU Directive 2009/48/EC, see informative Annex ZA, which is an integral part of this European Standard.

Annex B provides details of significant technical changes between this European Standard and the previous edition.

This European Standard constitutes the eighth part of the European Standard on safety of toys. It should be read in conjunction with Part 1.

This European Standard, *Safety of toys*, consists of the following parts:

- *Part 1: Mechanical and physical properties;*
- *Part 2: Flammability;*
- *Part 3: Migration of certain elements;*
- *Part 4: Experimental sets for chemistry and related activities;*
- *Part 5: Chemical toys (sets) other than experimental sets;*
- *Part 7: Finger paints — Requirements and test methods;*
- *Part 8: Activity toys for domestic use;*
- *Part 9: Organic chemical compounds — Requirements;*
- *Part 10: Organic chemical compounds — Sample preparation and extraction;*
- *Part 11: Organic chemical compounds — Methods of analysis;*
- *Part 12: N-Nitrosamines and N-nitrosatable substances;*
- *Part 13: Olfactory board games, cosmetic kits and gustative games;*

— *Part 14: Trampolines for domestic use.*

NOTE 1 In addition to the above parts of EN 71, the following guidance documents have been published: CEN Technical Report CEN/TR 15071, *Safety of toys — National translations of warnings and instructions for use in the EN 71 series*, and CEN Technical Report CEN/TR 15371 (all parts), *Safety of toys — Interpretations*.

NOTE 2 Different legal requirements may exist in non-EU countries.

NOTE 3 Words in *italics* are defined in Clause 3 (Terms and definitions).

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.

1 Scope

This European Standard specifies requirements and test methods for activity toys for domestic use often attached to or incorporating a crossbeam, and similar toys intended for children under 14 years to play on or in and often intended to bear the mass of one or more children.

This European Standard also specifies requirements for:

- separately sold accessories for, and components of activity toys;
- separately sold swing elements that are ready for use on or in combination with an activity toy;
- construction packages for activity toys including components used to build activity toys according to a scheduled building instruction.

The scope of this European Standard excludes:

- playground equipment intended for public use dealt with in the EN 1176 series;
- bow-mounted rocking activity toys such as rocking horses and similar toys, which are covered by specific requirements in EN 71-1;
- toy pools with maximum depth of water over 400 mm measured, between the overflow level and the deepest point within the pool;

NOTE 1 For information regarding the classification of pools as toys see European Commission guidance document No. 8 from Bibliographical Entry [1].

- pools with maximum depth of water over 400 mm measured, between the overflow level and the deepest point within the pool, without play elements covered e.g. by the EN 16582 series or EN 16927.

NOTE 2 There is an enhanced risk of drowning in toy pools where the depth of water is in excess of 400 mm.

- trampolines for domestic use dealt with in EN 71-14.
- inflatable activity toys (except paddling pools).

See also A.1.

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 71-1:2014, *Safety of toys - Part 1: Mechanical and physical properties*

EN ISO 4287:1998,¹ *Geometrical product specifications (GPS) - Surface texture: Profile method - Terms, definitions and surface texture parameters (ISO 4287:1997)*

¹ As impacted by EN ISO 4287:1998/A1:2009 and EN ISO 4287:1998/AC:2008.

ISO 20712-1:2008, *Water safety signs and beach safety flags — Part 1: Specifications for water safety signs used in workplaces and public areas*

3 Terms and definitions

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

3.1

activity toy

toy for domestic use, in which the support structure remains stationary while the activity is taking place and which is intended for the performance by a child of any of the following activities: climbing, jumping, swinging, sliding, rocking, spinning, paddling, crawling and creeping, or any combination thereof

Note 1 to entry: Examples of such toys are swings, slides, carousels, climbing frames, rigid playhouses, paddling pools. In contrast, ride-on vehicles are not considered as activity toys.

3.2

anchor

device used to fix an *activity toy* to the standing surface

3.3

barrier

device intended to prevent the user from falling and from passing beneath

[SOURCE: EN 1176-1:2017, 3.24]

3.4

crossbeam

bar or beam which forms a main load bearing part of certain *activity toys* (see Figure 1)

3.5

entrapment

hazard presented by a situation in which a body, part of a body, or clothing is entrapped

3.6

exposed edge

edge intended to be touched and/or gripped by a child during the use of an *activity toy*

Note 1 to entry: *Exposed edges* are commonly found on doors, windows, shutters, ladders, steps, *handrails*, retaining sides for *slides* and seats.

3.7

forced movement

movement of the user caused by the equipment (e.g. swinging, sliding, carousel rotation etc.) which, once started, cannot be totally controlled by the user

Note 1 to entry: Falls are not considered forced movement as they are not imposed on the user by the equipment but occur for other reasons.

[SOURCE: EN 1176-1:2017, 3.34, modified — An original Note 2 to entry is not reproduced here.]

3.8

free height of fall

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