

SVENSK STANDARD

SS-EN 71-1:2014



Fastställt/Approved: 2014-12-02
Publicerad/Published: 2014-12-03
Utgåva/Edition: 5
Språk/Language: engelska/English
ICS: 97.200.50

Leksaker – Säkerhetsregler – Del 1: Mekaniska och fysikaliska egenskaper

Safety of toys – Part 1: Mechanical and physical properties

This preview is downloaded from www.sis.se. Buy the entire standard via <https://www.sis.se/std-104724>

Standarder får världen att fungera

SIS (Swedish Standards Institute) är en fristående ideell förening med medlemmar från både privat och offentlig sektor. Vi är en del av det europeiska och globala nätverk som utarbetar internationella standarder. Standarder är dokumenterad kunskap utvecklad av framstående aktörer inom industri, näringsliv och samhälle och befrämjar handel över gränser, bidrar till att processer och produkter blir säkrare samt effektiviserar din verksamhet.

Delta och påverka

Som medlem i SIS har du möjlighet att påverka framtida standarder inom ditt område på nationell, europeisk och global nivå. Du får samtidigt tillgång till tidig information om utvecklingen inom din bransch.

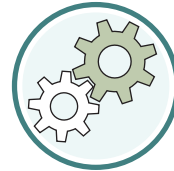
Ta del av det färdiga arbetet

Vi erbjuder våra kunder allt som rör standarder och deras tillämpning. Hos oss kan du köpa alla publikationer du behöver – allt från enskilda standarder, tekniska rapporter och standardpaket till handböcker och onlinetjänster. Genom vår webbtjänst e-nav får du tillgång till ett lättnavigerat bibliotek där alla standarder som är aktuella för ditt företag finns tillgängliga. Standarder och handböcker är källor till kunskap. Vi säljer dem.

Utveckla din kompetens och lyckas bättre i ditt arbete

Hos SIS kan du gå öppna eller företagsinterna utbildningar kring innehåll och tillämpning av standarder. Genom vår närhet till den internationella utvecklingen och ISO får du rätt kunskap i rätt tid, direkt från källan. Med vår kunskap om standarders möjligheter hjälper vi våra kunder att skapa verklig nytta och lönsamhet i sina verksamheter.

Vill du veta mer om SIS eller hur standarder kan effektivisera din verksamhet är du välkommen in på www.sis.se eller ta kontakt med oss på tel 08-555 523 00.



Standards make the world go round

SIS (Swedish Standards Institute) is an independent non-profit organisation with members from both the private and public sectors. We are part of the European and global network that draws up international standards. Standards consist of documented knowledge developed by prominent actors within the industry, business world and society. They promote cross-border trade, they help to make processes and products safer and they streamline your organisation.

Take part and have influence

As a member of SIS you will have the possibility to participate in standardization activities on national, European and global level. The membership in SIS will give you the opportunity to influence future standards and gain access to early stage information about developments within your field.

Get to know the finished work

We offer our customers everything in connection with standards and their application. You can purchase all the publications you need from us - everything from individual standards, technical reports and standard packages through to manuals and online services. Our web service e-nav gives you access to an easy-to-navigate library where all standards that are relevant to your company are available. Standards and manuals are sources of knowledge. We sell them.

Increase understanding and improve perception

With SIS you can undergo either shared or in-house training in the content and application of standards. Thanks to our proximity to international development and ISO you receive the right knowledge at the right time, direct from the source. With our knowledge about the potential of standards, we assist our customers in creating tangible benefit and profitability in their organisations.

If you want to know more about SIS, or how standards can streamline your organisation, please visit www.sis.se or contact us on phone +46 (0)8-555 523 00



Europastandarden EN 71-1:2014 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN 71-1:2014.

Denna standard ersätter SS-EN 71-1:2011+A3:2014, utgåva 1.

The European Standard EN 71-1:2014 has the status of a Swedish Standard. This document contains the official version of EN 71-1:2014.

This standard supersedes the Swedish Standard SS-EN 71-1:2011+A3:2014, edition 1.

© Copyright/Upphovsrätten till denna produkt tillhör SIS, Swedish Standards Institute, Stockholm, Sverige. Användningen av denna produkt regleras av slutanvändarlicensen som återfinns i denna produkt, se standardens sista sidor.

© Copyright SIS, Swedish Standards Institute, Stockholm, Sweden. All rights reserved. The use of this product is governed by the end-user licence for this product. You will find the licence in the end of this document.

Uppllysningar om sakinnehållet i standarden lämnas av SIS, Swedish Standards Institute, telefon 08-555 520 00. Standarder kan beställas hos SIS Förlag AB som även lämnar allmänna uppllysningar om svensk och utländsk standard.

Information about the content of the standard is available from the Swedish Standards Institute (SIS), telephone +46 8 555 520 00. Standards may be ordered from SIS Förlag AB, who can also provide general information about Swedish and foreign standards.

Denna standard är framtagen av kommittén för Leksaker, SIS/TK 392.

Har du synpunkter på innehållet i den här standarden, vill du delta i ett kommande revideringsarbete eller vara med och ta fram andra standarder inom området? Gå in på www.sis.se - där hittar du mer information.

EUROPEAN STANDARD

EN 71-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2014

ICS 97.200.50

Supersedes EN 71-1:2011+A3:2014

English Version

Safety of toys - Part 1: Mechanical and physical properties

Sécurité des jouets - Partie 1: Propriétés mécaniques et physiques

Sicherheit von Spielzeug - Teil 1: Mechanische und physikalische Eigenschaften

This European Standard was approved by CEN on 20 October 2014.

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

Contents

Page

Foreword.....	8
Introduction	11
1 Scope (see A.2)	12
2 Normative references	14
3 Terms and definitions	15
4 General requirements ¹⁾	23
4.1 Material cleanliness (see A.3).....	23
4.2 Assembly (see A.4).....	23
4.3 Flexible plastic sheeting (see A.5 and A.16).....	24
4.4 Toy bags	24
4.5 Glass (see 5.7 and A.6).....	24
4.6 Expanding materials (see A.7).....	24
4.7 Edges (see A.8).....	24
4.8 Points and metallic wires (see A.9).....	25
4.9 Protruding parts (see A.10).....	25
4.10 Parts moving against each other	26
4.10.1 Folding and sliding mechanisms (see A.11).....	26
4.10.2 Driving mechanisms (see A.12).....	28
4.10.3 Hinges (see A.13).....	28
4.10.4 Springs (see A.14).....	28
4.11 Mouth-actuated toys and other toys intended to be put in the mouth (see A.15)	29
4.12 Balloons (see 4.3 and A.16)	29
4.13 Cords of toy kites and other flying toys (see A.17).....	29
4.14 Enclosures.....	29
4.14.1 Toys which a child can enter (see A.18).....	29
4.14.2 Masks and helmets (see A.19).....	30
4.15 Toys intended to bear the mass of a child (see A.20).....	31
4.15.1 Toys propelled by a child or by other means	31
4.15.2 Toy bicycles (see A.20)	35
4.15.3 Rocking horses and similar toys (see A.21)	36
4.15.4 Toys not propelled by a child	37
4.15.5 Toy scooters (see A.49)	37
4.16 Heavy immobile toys	39
4.17 Projectiles (see A.22).....	39
4.17.1 General.....	39
4.17.2 Projectile toys without stored energy.....	39
4.17.3 Projectile toys with stored energy	40
4.17.4 Bows and arrows	40
4.18 Aquatic toys and inflatable toys (see A.23)	40
4.19 Percussion caps specifically designed for use in toys and toys using percussion caps (see A.24)	41
4.20 Acoustics (see A.25).....	41
4.20.1 Exposure categories for time-averaged sound pressure levels.....	41
4.20.2 Emission sound pressure level limits	42
4.21 Toys containing a non-electrical heat source	46
4.22 Small balls (see 5.10 and A.48).....	47
4.23 Magnets (see A.51)	47

4.23.1	General	47
4.23.2	Toys other than magnetic/electrical experimental sets intended for children over 8 years	47
4.23.3	Magnetic/electrical experimental sets intended for children over 8 years	48
4.24	Yo-yo balls (see A.52)	48
4.25	Toys attached to food (see A.55)	48
5	Toys intended for children under 36 months	48
5.1	General requirements (see A.26)	48
5.2	Soft-filled toys and soft-filled parts of a toy (see A.27)	49
5.3	Plastic sheeting (see A.28)	50
5.4	Cords, chains and electrical cables in toys (see A.29)	50
5.5	Liquid-filled toys (see A.30)	52
5.6	Speed limitation of electrically-driven ride-on toys	52
5.7	Glass and porcelain (see 4.5 and A.6)	52
5.8	Shape and size of certain toys (see A.31)	52
5.9	Toys comprising monofilament fibres (see A.32)	53
5.10	Small balls (see also 4.22 and A.48)	53
5.11	Play figures	53
5.12	Hemispheric-shaped toys (see A.50)	54
5.13	Suction cups (see A.54)	56
5.14	Straps intended to be worn fully or partially around the neck (see A.53)	56
6	Packaging (see A.56)	56
7	Warnings, markings and instructions for use (see A.33)	57
7.1	General	57
7.2	Toys not intended for children under 36 months (see 4.22 and A.34)	58
7.3	Latex balloons (see 4.12 and A.16)	59
7.4	Aquatic toys (see 4.18 and A.23)	59
7.5	Functional toys (see A.35)	60
7.6	Hazardous sharp functional edges and points (see 4.7 and 4.8)	60
7.7	Projectiles (see 4.17.3 c) and 4.17.4 c)	60
7.7.1	Toys with projectiles which are able to discharge an object other than that provided with the toy	60
7.7.2	Toys capable of discharging a projectile with a kinetic energy greater than 0,08 J	60
7.8	Imitation protective masks and helmets (see 4.14.2 and A.19)	60
7.9	Toy kites (see 4.13)	60
7.10	Roller skates, inline skates, skateboards and certain other ride-on toys (see 4.15.1.2 and A.20)	61
7.10.1	Roller skates, inline skates and skateboards	61
7.10.2	Ride-on toys without a braking device	61
7.10.3	Electrically-driven ride-on toys	61
7.10.4	Instructions for use	61
7.11	Toys intended to be attached to or strung across a cradle, cot, or perambulator (see 5.4 f)	62
7.12	Liquid-filled teethingers (see 5.5)	62
7.13	Percussion caps specifically designed for use in toys (see 4.19)	62
7.14	Acoustics (see 4.19 and 4.20)	62
7.15	Toy bicycles (see 4.15.2.2)	62
7.16	Toys intended to bear the mass of a child (see 4.15.1.2, 4.15.2.2, 4.15.3 and 4.15.4)	62
7.17	Toys comprising monofilament fibres (see 5.9)	63
7.18	Toy scooters (see 4.15.5.2)	63
7.19	Rocking horses and similar toys (see 4.15.3 and A.21)	63
7.20	Magnetic/electrical experimental sets (see 4.23.3 and A.51)	63
7.21	Toys with electrical cables exceeding 300 mm in length (see 5.4 i)	64
7.22	Toys with cords or chains intended for children of 18 months and over but under 36 months (see 5.4 b), 5.4 c) and 5.4 g)	64
8	Test methods	64

8.1	General requirements for testing	64
8.2	Small parts cylinder (see 4.6, 4.11, 4.18, 4.23.2, 4.23.3, 4.25, 5.1, 5.2 and A.36).....	64
8.3	Torque test (see 4.6, 4.11, 4.14.2, 4.17, 4.18, 4.22, 4.23.2, 4.25, 5.1, 5.10, 5.12, 5.13 and Clause 6)	65
8.4	Tension test (see A.37).....	65
8.4.1	Apparatus	65
8.4.2	Procedure	66
8.5	Drop test (see 4.5, 4.6, 4.10.2, 4.14.2, 4.22, 4.23.2, 4.25, 5.1, 5.10, 5.12 and 5.13).....	68
8.6	Tip over test (see 4.10.2, 4.22, 4.23.2, 5.1, 5.10, 5.12 and 5.13)	68
8.7	Impact test (see 4.5, 4.6, 4.10.2, 4.14.2, 4.22, 4.23.2, 4.25, 5.1, 5.10, 5.12, 5.13 and A.38).....	69
8.8	Compression test (see 4.6, 4.14.2, 4.22, 4.23.2, 4.25, 5.1, 5.10, 5.12, 5.13 and A.39)	69
8.9	Soaking test (see 4.11, 4.23.2, 5.1, 5.10 and 5.12)	69
8.10	Accessibility of a part or component (see 4.5, 4.7, 4.8, 4.10.2, 4.10.4, 4.15.1.3, 4.21, 5.2 and 5.7)	70
8.10.1	Principle.....	70
8.10.2	Apparatus	70
8.10.3	Procedure	70
8.11	Sharpness of edges (see 4.5, 4.7, 4.9, 4.10.2, 4.14.2, 4.15.1.3 and 5.1)	72
8.11.1	Principle.....	72
8.11.2	Apparatus	72
8.11.3	Procedure	73
8.12	Sharpness of points (see 4.5, 4.8, 4.9, 4.10.2, 4.14.2, 4.15.1.3, 5.1 and A.40)	74
8.12.1	Principle.....	74
8.12.2	Apparatus	74
8.12.3	Procedure	75
8.13	Flexibility of metallic wires (see 4.8 and A.41).....	76
8.13.1	General.....	76
8.13.2	Metallic wires and other metallic components intended to be bent.....	76
8.13.3	Metallic wires likely to be bent	76
8.14	Expanding materials (see 4.6)	77
8.15	Leakage of liquid-filled toys (see 5.5 and A.42).....	77
8.16	Geometric shape of certain toys (see 5.8, 5.11 and A.43)	77
8.17	Durability of mouth-actuated toys (see 4.11 and A.44).....	78
8.17.1	Mouth-actuated projectile toys.....	78
8.17.2	Other mouth-actuated toys	78
8.18	Folding or sliding mechanisms (see 4.10.1 and A.45)	79
8.18.1	Loads	79
8.18.2	Toy pushchairs and perambulators	79
8.18.3	Other collapsible toys (see 4.10.1 c).....	80
8.19	Electric resistivity of cords (see 4.13)	80
8.20	Cords cross-sectional dimension (see 5.4 a)	80
8.21	Static strength (see 4.15.1.3, 4.15.1.5, 4.15.3, 4.15.4 and A.46).....	81
8.22	Dynamic strength (see 4.15.1.3)	82
8.22.1	Principle.....	82
8.22.2	Loads	82
8.22.3	Procedure	83
8.23	Stability	85
8.23.1	Toys intended to bear the mass of a child (see 4.15.1.4, 4.15.3 and 4.15.4).....	85
8.23.2	Heavy immobile toys (see 4.16).....	85
8.24	Determination of kinetic energy (see A.47)	85
8.24.1	Kinetic energy of projectiles (see 4.17.3)	85
8.24.2	Kinetic energy of bows and arrows (see 4.17.4).....	86
8.25	Plastic sheeting.....	86
8.25.1	Thickness (see 4.3, 5.3 and Clause 6)	86
8.25.2	Adhesion (see 5.3)	86
8.26	Brake performance	86
8.26.1	Brake performance for certain ride-on toys (see 4.15.1.5)	86

8.26.2	Brake performance for toy bicycles (see 4.15.2.3).....	87
8.26.3	Brake performance for toy scooters (see 4.15.5.5).....	87
8.27	Strength of toy scooter steering tubes (see 4.15.5.3).....	88
8.27.1	Resistance to downward forces	88
8.27.2	Resistance to upward forces	89
8.28	Determination of emission sound pressure levels (see 4.20).....	89
8.28.1	General	89
8.28.2	Test procedures.....	93
8.29	Determination of maximum design speed of electrically-driven ride-on toys (see 4.15.1.2, 4.15.1.5, 4.15.1.8 and 5.6).....	102
8.30	Measurement of temperature rises (see 4.21)	103
8.31	Toy chest lids (see 4.14.1 c)).....	103
8.31.1	General	103
8.31.2	Lid support.....	103
8.31.3	Durability test for vertically opening hinged lids	103
8.32	Small balls and suction cups test (see 4.17, 4.22, 4.25, 5.10 and 5.13)	103
8.32.1	Small balls and suction cups (see Clause 6).....	103
8.32.2	Small balls attached to a toy by a cord	104
8.33	Test for play figures (see 5.11).....	105
8.34	Tension test for magnets (see 4.23.2 and A.51)	105
8.34.1	General	105
8.34.2	Toys that contain more than one magnet or magnetic component.....	105
8.34.3	Toys that contain one magnet only	106
8.35	Magnetic flux index (see 4.23.2 and 4.23.3)	106
8.35.1	General	106
8.35.2	Apparatus.....	106
8.35.3	Procedure.....	106
8.35.4	Calculation of magnetic flux index	107
8.36	Perimeter of cords and chains (see 5.4 c) and 5.4 d))	107
8.36.1	Test equipment	107
8.36.2	Test procedures.....	109
8.37	Yo-yo balls measurements (see 4.24)	112
8.37.1	Measurement of initial length l_0	112
8.37.2	Measurement of elastic constant k.....	113
8.38	Breakaway feature separation test (see 5.4 b), 5.4 c) and 5.14)	114
8.39	Self-retracting cords (see 5.4 e)).....	115
8.40	Length of cords, chains and electrical cables (see 5.4 b), 5.4 c), 5.4 g), 5.4 h) and 5.4 i)).....	115
Annex A (informative) Background and rationale for this European Standard.....		116
A.1	General	116
A.2	Scope (see Clause 1).....	116
A.3	Material cleanliness (see 4.1)	116
A.4	Assembly (see 4.2)	117
A.5	Flexible plastic sheeting (see 4.3)	117
A.6	Glass (see 4.5 and 5.7).....	117
A.7	Expanding materials (see 4.6).....	117
A.8	Edges (see 4.7)	117
A.9	Points and metallic wires (see 4.8).....	118
A.10	Protruding parts (see 4.9).....	118
A.11	Folding and sliding mechanisms (see 4.10.1)	119
A.12	Driving mechanisms (see 4.10.2).....	119

A.13	Hinges (see 4.10.3).....	119
A.14	Springs (see 4.10.4)	120
A.15	Mouth-actuated toys and other toys intended to be put in the mouth (see 4.11)	120
A.16	Balloons (see 4.3, 4.12 and 7.3).....	120
A.17	Cords of toy kites (see 4.13)	121
A.18	Toys which a child can enter (see 4.14.1)	121
A.19	Masks and helmets (see 4.14.2 and 7.8)	121
A.20	Toys intended to bear the mass of a child (see 4.15 and 7.10).....	121
A.21	Rocking horses and similar toys (see 4.15.3).....	122
A.22	Projectiles (see 4.17)	123
A.23	Aquatic toys and inflatable toys (see 4.18 and 7.4).....	123
A.24	Percussion caps specifically designed for use in toys and toys using percussion caps (see 4.19).....	123
A.25	Acoustics (see 4.20)	124
A.26	General requirements for toys intended for children under 36 months (see 5.1).....	127
A.27	Soft-filled toys and soft-filled parts of a toy (see 5.2)	128
A.28	Adhesion of plastic sheeting (see 5.3)	129
A.29	Cords and chains in toys (see 5.4).....	129
A.30	Liquid-filled toys (see 5.5 and A.42).....	131
A.31	Shape and size of certain toys (see 5.8 and A.43).....	131
A.32	Toys comprising monofilament fibres (see 5.9)	132
A.33	Warnings, markings and instructions for use (see 7.1).....	132
A.34	Warning for toys not intended for children under 36 months (see 7.2)	134
A.35	Warnings in connection with functional toys (see 7.5)	134
A.36	Small parts cylinder (see 8.2)	134
A.37	Tension test (see 8.4)	134
A.38	Impact test (see 8.7)	134
A.39	Compression test (see 8.8)	135
A.40	Sharpness of points (see 8.12).....	135
A.41	Flexibility of metallic wires (see 8.13).....	135
A.42	Leakage of liquid-filled teethingers (see 8.15 and A.30)	135
A.43	Geometric shape of certain toys (see 8.16 and A.31)	135
A.44	Durability of mouth-actuated toys (see 8.17).....	135
A.45	Folding or sliding mechanisms (see 8.18)	135
A.46	Static strength (see 8.21)	136
A.47	Kinetic energy of projectiles, bows and arrows (see 8.24)	136
A.48	Small balls (see 4.22 and 5.10)	136
A.49	Toy scooters (see 4.15.5)	137

A.50	Hemispheric-shaped toys (see 5.12)	138
A.51	Magnets (see 4.23)	138
A.52	Yo-yo balls (see 4.24)	140
A.53	Straps intended to be worn fully or partially around the neck (see 5.14)	143
A.54	Suction cups (see 5.13)	143
A.55	Toys attached to food (see 4.25)	144
A.56	Packaging (see Clause 6)	144
Annex ZA (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives		146
Bibliography		148

Foreword

This document (EN 71-1:2014) 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 May 2015, and conflicting national standards shall be withdrawn at the latest by May 2015.

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 71-1:2011+A3:2014.

This European Standard has been prepared under a mandate 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.

This European Standard constitutes the first part of the European Standard on safety of toys.

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

- *Part 1: Mechanical and physical properties* [the present document];
- *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 documents have been published: the CEN Report CR 14379, *Classification of toys — Guidelines*, the CEN Technical Report CEN/TR 15071, *Safety of toys — National translations of warnings and instructions for use in EN 71*, and the CEN Technical Report CEN/TR 15371, *Safety of toys — Replies to requests for interpretation of EN 71-1, EN 71-2, and EN 71-8*.

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

The following significant editorial and technical changes have been implemented in this new edition:

- The foreword has been updated according to new parts in the EN 71 series.
- The wording of the note in 5.2 b) has been aligned with the wording of the first indent under 5.1.
- In 5.4 and 8.39 the text “more than 6 mm” has been added.
- Annex B – Significant technical changes between this European Standard and the previous version, has been deleted.
- Furthermore it has been necessary due to rules contained in the CEN/CENELEC Internal regulations – Part 3 to change some of the notes:

4.25

The content of the Note regarding the Directive 2009/48/C has been moved to the end of A.55.

Clause 5

The first sentence in the original Clause 5 has been inserted at the very beginning of A.26.

The content of the Note regarding the Directive 2009/48/C has been moved to the end of A.26.

Clause 7

The content of the Note regarding the Directive 2009/48/C has been moved to the end of A.33 and the first sentence has been changed.

7.1

The Note has been made normative.

8.10.3

Note 1 and 2 have been made normative:

8.12.3

In the Note, the word "may" has been changed to "can".

8.15

The Note has been made normative.

8.22.3.1

In the four Notes, "should be" has been replaced with "It is appropriate to..".

8.28.1.4

The former Note has been changed ("should be" has been replaced by "It is appropriate to..").

8.28.2.2.1

In the Note, the word "may" has been changed to "can".

8.34.2

The former Note has been made normative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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

This European Standard aims at reducing as far as possible those hazards which are not evident to users; it does not cover inherent hazards (e.g. instability of two-wheeled scooters, sharp needles in a sewing kit, etc.) that are obvious to children or the persons in charge of them. Assuming that the toys are used in the intended manner they should not present any further hazard to children for whom they are intended (according to Directive 2009/48/EC “intended for use by” means that a parent or supervisor shall reasonably be able to assume by virtue of the functions, dimensions and characteristics of a toy that it is intended for use by children of the stated age group”). Allowance should also be made for foreseeable use, bearing in mind the behaviour of children who do not generally share the same degree of care as the average adult user.

As a general rule, toys are designed and manufactured for particular ages of children. Their characteristics are related to the age and stage of development of the children, and their use presupposes certain aptitudes.

Accidents are frequently due to a toy either being given to a child for whom it is not intended, or being used for a purpose other than that for which it was designed. Great care should therefore be taken when choosing a toy or game; account should be taken of the mental and physical development of the child who will be using it.

The requirements of this European Standard do not release parents or carers from their responsibility of watching over the child while he or she is playing.

1 Scope (see A.2)

This European Standard specifies requirements and methods of tests for mechanical and physical properties of toys.

This European Standard applies to toys for children, toys being any product or material designed or intended, whether or not exclusively, for use in play by children of less than 14 years. It refers to new toys taking into account the period of foreseeable and normal use, and that the toys are used as intended or in a foreseeable way, bearing in mind the behaviour of children.

It includes specific requirements for toys intended for children under 36 months, children under 18 months and for children who are too young to sit up unaided. According to Directive 2009/48/EC “intended for use by” means that a parent or supervisor shall reasonably be able to assume by virtue of the functions, dimensions and characteristics of a toy that it is intended for use by children of the stated age group. Therefore, for the purpose of this European Standard, e.g. *soft-filled toys* with simple features intended for holding and cuddling are considered as toys intended for children under 36 months.

NOTE Information relating to the age grading of toys and, in particular, which toys are intended for children under 36 months and which toys are not, can be found in the CEN Report CR 14379, the Consumer Product Safety Commission (CPSC) Age determination guidelines, CEN/CENELEC Guide 11 and the European Commission’s Guidance Documents.

This European Standard also specifies requirements for *packaging*, marking and labelling.

This European Standard does not cover musical instruments, sports equipment or similar items but does include their toy counterparts.

This European Standard does not apply to the following toys:

- playground equipment intended for public use;
- automatic playing machines, whether coin operated or not, intended for public use;
- toy vehicles equipped with combustion engines (see A.2);
- toy steam engines;
- slings and catapults.

Items that are propelled into free flight by a child releasing an elastic band (e.g. aeroplanes and rockets) are considered as catapults (see the 5th indent above).

This European Standard does not cover electrical safety aspects of toys. These are covered by EN 62115.

Furthermore, it does not cover the following items which, for the purpose of this European Standard, are not considered as toys:

- a) decorative objects for festivities and celebrations;
- b) products for collectors, provided that the product or its *packaging* bears a visible and legible indication that it is intended for collectors of 14 years of age and above; examples of this category are:
 - 1) detailed and faithful scale models (see A.2);
 - 2) kits for the assembly of detailed scale models;
 - 3) folk dolls and decorative dolls and other similar articles;

- 4) historical replicas of toys;
- 5) reproductions of real fire arms;
- c) sports equipment including roller skates, inline skates, and skateboards intended for children with a body mass of more than 20 kg;
- d) bicycles with a *maximum saddle height* of more than 435 mm, measured as the vertical distance from the ground to the top of the seat surface, with the seat in a horizontal position and with the seat pillar set to the minimum insertion mark;
- e) *scooters* and other means of transport designed for sport or which are intended to be used for travel on public roads or public pathways;
- f) electrically driven vehicles which are intended to be used for travel on public roads, public pathways, or the pavement thereof;
- g) aquatic equipment intended to be used in deep water, and swimming learning devices for children, such as swim seats and swimming aids;
- h) puzzles with more than 500 pieces;
- i) guns and pistols using compressed gas, with the exception of water guns and water pistols;
- j) bows for archery over 120 cm long;
- k) fireworks, including percussion caps which are not specifically designed for toys;
- l) products and games using sharp-pointed missiles, such as sets of darts with metallic points;
- m) functional educational products, such as electric ovens, irons or other *functional products*, as defined in EU Directive 2009/48/EC, operated at a nominal voltage exceeding 24 V which are sold exclusively for teaching purposes under adult supervision;
- n) products intended for use for educational purposes in schools and other pedagogical contexts under the surveillance of an adult instructor, such as science equipment;
- o) electronic equipment, such as personal computers and game consoles, used to access interactive software and their associated peripherals, unless the electronic equipment or the associated peripherals are specifically designed for and targeted at children and have a play value on their own, such as specially designed personal computers, key boards, joy sticks or steering wheels;
- p) interactive software, intended for leisure and entertainment, such as computer games, and their storage media, such as CDs;
- q) babies' soothers;
- r) child-appealing luminaires;
- s) electrical transformers for toys;
- t) fashion accessories for children which are not for use in play (see A.2);
- u) personal protective equipment, including flotation aids such as arm bands and swim seats (see A.23); and swimming goggles, sunglasses and other eye protectors as well as bicycle and skateboard helmets (see A.19).

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 71-8, *Safety of toys - Part 8: Activity toys for domestic use*

EN 15649-3, *Floating leisure articles for use on and in the water — Part 3: Additional specific safety requirements and test methods for Class A devices*

EN 50332-1, *Sound system equipment: Headphones and earphones associated with personal music players — Maximum sound pressure level measurement methodology — Part 1: General method for "one package equipment"*

EN 61672-1, *Electroacoustics — Sound level meters — Part 1: Specifications (IEC 61672-1)*

EN ISO 868, *Plastics and ebonite - Determination of indentation hardness by means of a durometer (Shore hardness) (ISO 868)*

EN ISO 3744, *Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Engineering methods for an essentially free field over a reflecting plane (ISO 3744)*

EN ISO 3745, *Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Precision methods for anechoic rooms and hemi-anechoic rooms (ISO 3745)*

EN ISO 3746, *Acoustics - Determination of sound power levels and sound energy levels of noise sources using sound pressure - Survey method using an enveloping measurement surface over a reflecting plane (ISO 3746)*

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

EN ISO 6508-1, *Metallic materials - Rockwell hardness test - Part 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T) (ISO 6508-1)*

EN ISO 11201, *Acoustics - Noise emitted by machinery and equipment - Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections (ISO 11201)*

EN ISO 11202, *Acoustics - Noise emitted by machinery and equipment - Determination of emission sound pressure levels at a work station and at other specified positions applying approximate environmental corrections (ISO 11202)*

ISO 4593, *Plastics — Film and sheeting — Determination of thickness by mechanical scanning*

ISO 7619-2, *Rubber, vulcanized or thermoplastic — Determination of indentation hardness — Part 2: IRHD pocket meter method*

IEC/TS 60318-7, *Electroacoustics — Simulators of human head and ear — Part 7: Head and torso simulator for acoustic measurement of hearing aids*

3 Terms and definitions

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

3.1

accessible

contactable under the test conditions of 8.10 (accessibility of a part or component)

3.2

aquatic toy

toy, whether inflatable or not, intended for use in shallow water and which is capable of carrying or supporting a child on the water

3.3

asphyxiation

insufficient supply of air to the airways

Note 1 to entry: Insufficient supply of air could be caused e.g. by closing off the flow of air as a result of *choking* or *suffocation* or by entrapment in an unventilated, confined space.

3.4

backing

material adhering to flexible *plastic sheeting*

3.5

ball

spherical, ovoid or ellipsoidal object, usually but not always designed or intended to be thrown, hit, kicked, rolled, dropped or bounced

Note 1 to entry: The term *ball* also includes any multisided object formed by at least 48 connecting planes into a generally spherical, ovoid or ellipsoidal shape.

3.6

burr

roughness, caused by not cleanly severing or finishing the material

3.7

cap-firing toy

toy clearly designed to emit sound caused by discharge of a percussion cap

Note 1 to entry: Examples of *cap-firing toys* include cap guns.

3.8

chain

connected series of links or rings

3.9

choking

closing off the flow of air as a result of internal *asphyxiation*

Note 1 to entry: *Choking* can, for example, be caused by inhalation of an object, by an object becoming wedged in the mouth or pharynx, or by an object becoming lodged over the entrance to the lower airways.

3.10

close-to-the-ear toy

toy clearly designed to emit sound, intended to be used within 2,5 cm of the ear