

DIN EN 71-1:2026-04 (E)

Safety of toys - Part 1: Mechanical and physical properties

Contents	Page
European foreword.....	7
Introduction	13
1 Scope (see A.2)	14
2 Normative references	15
3 Terms and definitions	17
4 General requirements	31
4.1 Material cleanliness (see A.3).....	31
4.2 Assembly (see A.4).....	31
4.3 Flexible plastic sheeting (see 4.12, A.5 and A.16)	31
4.4 Toy bags.....	31
4.5 Glass (see 5.7 and A.6).....	31
4.6 Expanding materials (see A.7).....	32
4.7 Edges (see A.8)	32
4.8 Points and metallic wires (see A.9)	33
4.9 Protruding parts (see A.10).....	33
4.10 Parts moving against each other	34
4.11 Mouth-actuated toys and other toys intended to be put in the mouth (see A.15)	37
4.12 Balloons (see 4.3 and A.16)	37
4.13 Cords of toy kites and other flying toys (see A.17).....	37
4.14 Enclosures.....	38
4.15 Toys intended to bear the mass of a child (see A.20)	40
4.16 Heavy immobile toys.....	55
4.17 Projectile toys (see A.22).....	56
4.18 Aquatic toys and inflatable toys (see A.23).....	62
4.19 Percussion caps specifically designed for use in toys and toys using percussion caps (see A.24)	63
4.20 Acoustics (see A.25)	63
4.21 Toys containing a non-electrical heat source	68
4.22 Small balls (see 5.10 and A.48)	68
4.23 Magnets (see A.51).....	69
4.24 Yo-yo balls (see A.52)	69
4.25 Toys attached to food (see A.55)	70
4.26 Toy disguise costumes (see A.57)	70
4.27 Flying toys (see A.58).....	70
4.28 Food-imitating toys (see A.59)	71
5 Toys intended for children under 36 months.....	72
5.1 General requirements (see A.26)	72
5.2 Soft-filled toys and soft-filled parts of a toy (see A.27).....	74
5.3 Plastic sheeting (see A.28)	74
5.4 Cords, chains and electrical cables in toys (see A.29).....	74
5.5 Liquid-filled toys (see A.30)	79
5.6 Speed limitation of electrically-driven ride-on toys	79
5.7 Glass and porcelain (see 4.5 and A.6)	79
5.8 Shape and size of certain toys (see A.31).....	79

5.9	Toys comprised of monofilament fibres (see A.32)	80
5.10	Small balls (see also 4.22 and A.48)	80
5.11	Play figures	80
5.12	Hemispheric-shaped toys (see A.50)	81
5.13	Suction cups (see A.54)	83
5.14	Straps intended to be worn fully or partially around the neck (see A.53)	83
5.15	Sledges with cords for pulling	83
6	Packaging (see A.56)	84
7	Warnings, markings and instructions for use (see A.33)	84
7.1	General	84
7.2	Toys not intended for children under 36 months (see 4.22 and A.34)	85
7.3	Latex balloons (see 4.12 and A.16)	86
7.4	Aquatic toys (see 4.18 and A.23)	87
7.5	Functional toys (see A.35)	87
7.6	Hazardous sharp functional edges and points (see 4.7 and 4.8)	87
7.7	Projectile toys (see 4.17.3.1 and A.22)	87
7.8	Imitation protective masks and helmets (see 4.14.2 and A.19)	87
7.9	Toy kites (see 4.13)	87
7.10	Toys intended to be strung across a cradle, cot, or perambulator (see 5.4.9.1)	88
7.11	Liquid-filled teethingers (see 5.5)	88
7.12	Percussion caps specifically designed for use in toys (see 4.19)	88
7.13	Acoustics (see 4.19 and 4.20)	88
7.14	Toys intended to bear the mass of a child (see 4.15)	88
7.15	Toys comprised of monofilament fibres (see 5.9)	92
7.16	Magnetic/electrical experimental sets (see 4.23.3 and A.51)	92
7.17	Toys with electrical cables exceeding 300 mm in length (see 5.4.6)	92
7.18	Toys with cords or chains intended for children of 18 months and over but under 36 months (see 5.4.3)	92
7.19	Toys intended to be attached to a cradle, cot or perambulator (see 5.4.9.2)	92
7.20	Sledges with cords for pulling	93
7.21	Flying toys (see 4.27)	93
7.22	Improvised projectiles (see 4.17.4)	93
8	Test methods	93
8.1	General requirements for testing	93
8.2	Small parts cylinder (see 4.6, 4.11, 4.18, 4.23, 4.25, 4.28, 5.1, 5.2 and A.36)	94
8.3	Torque test (see 4.6, 4.11, 4.14, 4.17, 4.18, 4.22, 4.23, 4.25, 4.28, 5.1, 5.10, 5.12, 5.13 and Clause 6)	94
8.4	Tension test (see 4.6, 4.9, 4.11, 4.14, 4.17, 4.18, 4.22, 4.23, 4.25, 4.27, 4.28, 5.1, 5.2, 5.3, 5.10, 5.12, 5.13, Clause 6 and A.37)	95
8.5	Drop test (see 4.5, 4.6, 4.10, 4.14, 4.22, 4.23, 4.25, 5.1, 5.10, 5.12 and 5.13)	98
8.6	Tip over test (see 4.10, 4.22, 4.23, 5.1, 5.10, 5.12 and 5.13)	98
8.7	Impact test (see 4.5, 4.6, 4.10, 4.14, 4.15, 4.17, 4.22, 4.23, 4.25, 5.1, 5.10, 5.12, 5.13, 8.14 and A.38)	99
8.8	Compression test (see 4.6, 4.14, 4.17, 4.22, 4.23, 4.25, 5.1, 5.10, 5.12, 5.13 and A.39)	99
8.9	Soaking test (see 4.11, 4.23, 5.1, 5.10 and 5.12)	100
8.10	Accessibility of a part or component (see 4.5, 4.7, 4.8, 4.10.2, 4.10.4, 4.15, 4.21, 4.23, 4.27, 4.28, 5.1, 5.2 and 5.7)	100
8.11	Sharpness of edges (see 4.5, 4.7, 4.9, 4.10, 4.14, 4.15, 4.17, 5.1 and 7.6)	102
8.12	Sharpness of points (see 4.5, 4.8, 4.9, 4.10, 4.14, 4.15, 4.17, 5.1 and A.40)	104
8.13	Flexibility of metallic wires (see 4.8 and A.41)	106
8.14	Expanding materials (see 4.6 and A.7)	107
8.15	Leakage of liquid-filled toys (see 5.5 and A.42)	109

8.16	Geometric shape of certain toys (see 5.8 and A.43).....	110
8.17	Durability of mouth-actuated toys (see 4.11 and A.44)	111
8.18	Folding or sliding mechanisms (see 4.10.1 and A.45)	111
8.19	Electric resistivity of cords (see 4.13)	113
8.20	Cords cross-sectional dimension (see 5.4.7).....	113
8.21	Toys intended to bear the mass of a child.....	114
8.22	Stability, heavy immobile toys (see 4.16).....	133
8.23	Kinetic energy and Kinetic energy density of projectiles (see 4.17.3 and 4.17.4)	134
8.24	Plastic sheeting.....	139
8.25	Determination of emission sound pressure levels (see 4.20)	139
8.26	Measurement of temperature rises (see 4.21)	152
8.27	Toy chest lids (see 4.14.1 c))	152
8.28	Small balls and suction cups test (see 4.17, 4.22, 4.25, 5.10 and 5.13).....	153
8.29	Test for play figures (see 5.11).....	154
8.30	Tension test for magnets (see 4.23.2 and A.51)	154
8.31	Magnetic flux index (see 4.23.2 and 4.23.3)	155
8.32	Perimeter of cords and chains (see 5.4.4).....	157
8.33	Yo-yo balls measurements (see 4.24)	161
8.34	Breakaway feature separation test (see 5.4.2, 5.4.3 and 5.14)	164
8.35	Self-retracting cords (see 5.4.8).....	164
8.36	Length of cords, chains and electrical cables (see 5.4.2, 5.4.3, 5.4.5 and 5.4.6)	164
8.37	Assessment of the tangle potential of two cords or chains (see 5.4.3)	165
8.38	Determination of projectile range (see 4.17)	166
8.39	Assessment of leading parts of projectiles and flying toys (see 4.27.1 and 4.17.2)	167
8.40	Length of suction cup projectiles.....	168
8.41	Wall impact test for projectiles (see A.22).....	169
8.42	Escape force for toys that a child can enter (See 4.14.1)	169
8.43	Combinations of ventilation openings (See 4.14.1 and 4.14.2)	170
Annex A (informative) Background and rationale for this European Standard.....		171
A.1	General.....	171
A.2	Scope (see Clause 1)	171
A.3	Material cleanliness (see 4.1)	171
A.4	Assembly (see 4.2)	172
A.5	Flexible plastic sheeting (see 4.3)	172
A.6	Glass (see 4.5 and 5.7)	172
A.7	Expanding materials (see 4.6 and 8.14).....	172
A.8	Edges (see 4.7).....	173
A.9	Points and metallic wires (see 4.8).....	173
A.10	Protruding parts (see 4.9 and 4.15)	174
A.11	Folding and sliding mechanisms (see 4.10.1).....	174
A.12	Driving mechanisms (see 4.10.2)	175
A.13	Hinges (see 4.10.3)	175
A.14	Springs (see 4.10.4)	176
A.15	Mouth-actuated toys and other toys intended to be put in the mouth (see 4.11)	176
A.16	Balloons (see 4.3, 4.12 and 7.3)	176

A.17	Cords of toy kites (see 4.13).....	176
A.18	Toys which a child can enter (see 4.14.1)	177
A.19	Masks and helmets (see 4.14.2 and 7.8).....	177
A.20	Toys intended to bear the mass of a child (see 4.15 and 7.14)	177
A.21	Rocking horses and similar toys (see 4.15.9)	182
A.22	Projectile toys (see 4.17)	182
A.23	Aquatic toys and inflatable toys (see 4.18 and 7.4).....	186
A.24	Percussion caps specifically designed for use in toys and toys using percussion caps (see 4.19)	187
A.25	Acoustics (see 4.20)	187
A.26	General requirements for toys intended for children under 36 months (see 5.1).....	190
A.27	Soft-filled toys and soft-filled parts of a toy (see 5.2)	193
A.28	Adhesion of plastic sheeting (see 5.3).....	193
A.29	Cords and chains in toys (see 5.4)	193
A.30	Liquid-filled toys (see 5.5 and A.42)	198
A.31	Shape and size of certain toys (see 5.8 and A.43)	198
A.32	Toys comprised of monofilament fibres (see 5.9)	199
A.33	Warnings, markings and instructions for use (see 7.1).....	199
A.34	Warning for toys not intended for children under 36 months (see 7.2)	201
A.35	Warnings in connection with functional toys (see 7.5)	201
A.36	Small parts cylinder (see 8.2).....	201
A.37	Tension test (see 8.4)	202
A.38	Impact test (see 8.7)	202
A.39	Compression test (see 8.8)	202
A.40	Sharpness of points (see 8.12)	202
A.41	Flexibility of metallic wires (see 8.13).....	202
A.42	Leakage of liquid-filled teethingers (see 8.15 and A.30).....	202
A.43	Geometric shape of certain toys (see 8.16 and A.31).....	202
A.44	Durability of mouth-actuated toys (see 8.17)	203
A.45	Folding or sliding mechanisms (see 8.18).....	203
A.46	Static strength (see 8.21)	203
A.47	Kinetic energy of projectiles, bows and arrows (see 8.23)	203
A.48	Small balls (see 4.22 and 5.10)	203
A.49	Toy scooters (see 4.15.5)	205
A.50	Hemispheric-shaped toys (see 5.12)	205
A.51	Magnets (see 4.23)	205
A.52	Yo-yo balls (see 4.24)	208

A.53	Straps intended to be worn fully or partially around the neck (see 5.14)	211
A.54	Suction cups (see 5.13)	211
A.55	Toys attached to food (see 4.25)	211
A.56	Packaging (see Clause 6)	212
A.57	Cords and drawstrings (see 4.26)	213
A.58	Flying toys, rotors and propellers (see 4.27)	213
A.59	Food-imitating toys (see 4.28)	215
Annex ZA	(informative) Relationship between this European Standard and the essential requirements of Directive 2009/48/EC (OJ L 170, 30.6.2009) aimed to be covered	217
Bibliography	219