

ISO 8124-1:2012-10 (E)

Safety of toys - Part 1: Safety aspects related to mechanical and physical properties

Contents		Page
Foreword		v
Introduction		vi
1	Scope	1
2	Normative references	3
3	Terms and definitions	3
4	Requirements	12
4.1	Normal use	12
4.2	Reasonably foreseeable abuse	12
4.3	Material	12
4.4	Small parts	13
4.5	Shape, size and strength of certain toys	13
4.6	Edges	18
4.7	Points	19
4.8	Projections	20
4.9	Metal wires and rods	20
4.10	Plastic film or plastic bags in packaging and in toys	20
4.11	Cords and elastics	21
4.12	Folding mechanisms	22
4.13	Holes, clearances and accessibility of mechanisms	24
4.14	Springs	26
4.15	Stability and overload requirements	26
4.16	Enclosures	27
4.17	Simulated protective equipment, such as helmets, hats and goggles	28
4.18	Projectile toys	29
4.19	Aquatic toys	30
4.20	Braking	30
4.21	Toy bicycles	31
4.22	Speed limitation of electrically driven ride-on toys	32
4.23	Toys containing a heat source	32
4.24	Liquid-filled toys	33
4.25	Mouth-actuated toys	33
4.26	Toy rollerskates, toy inlineskates and toy skateboards	33
4.27	Percussion caps	33
4.28	Acoustic requirements	33
4.29	Toy scooters	34
4.30	Magnets and magnetic components	36
5	Test methods	37
5.1	General	37
5.2	Small parts test	37
5.3	Test for shape and size of certain toys	38
5.4	Small balls test	39
5.5	Test for pompoms	40
5.6	Test for pre-school play figures	40
5.7	Accessibility of a part or component	40
5.8	Sharp-edge test	42
5.9	Sharp-point test	43

5.10	Determination of thickness of plastic film and sheeting	46
5.11	Test for cords	46
5.12	Stability and overload tests	47
5.13	Test for closures and toy chest lids	49
5.14	Impact test for toys that cover the face	49
5.15	Kinetic energy of projectiles, bows and arrows	49
5.16	Free-wheeling facility and brake performance test	51
5.17	Determination of speed of electrically driven ride-on toys	52
5.18	Determination of temperature increases	52
5.19	Leakage of liquid-filled toys	52
5.20	Durability of mouth-actuated toys	52
5.21	Expanding materials	53
5.22	Folding or sliding mechanisms	53
5.23	Washable toys	54
5.24	Reasonably foreseeable abuse tests	54
5.25	Determination of sound pressure levels	59
5.26	Static strength for toy scooters	64
5.27	Dynamic strength for toy scooters	65
5.28	Brake performance for toy scooters	67
5.29	Strength of toy scooter steering tubes	68
5.30	Resistance to separation of handlebar	69
5.31	Tension test for magnets	70
5.32	Magnetic flux index	71
5.33	Impact test for magnets	72
5.34	Soaking test for magnets	72
Annex A (informative) Age-grading guidelines		73
Annex B (informative) Safety-labelling guidelines and manufacturer's markings		76
Annex C (informative) Design guidelines for toys attached to cribs or playpens		82
Annex D (informative) Toy gun marking		83
Annex E (informative) Rationale		84
Bibliography		97