ISO 8124-1:2009-03 (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 2

3 Terms and definitions 3

4 Requirements 11
4.1 Normal use 11
4.2 Reasonably foreseeable abuse 12
4.3 Material 12
4.4 Small parts 12
4.5 Shape, size and strength of certain toys 13
4.6 Edges 18
4.7 Points 19
4.8 Projections 19
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 29
4.18 Projectile toys 29
4.19 Aquatic toys 30
4.20 Braking 31
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 roller skates, toy inline skates and toy skateboards 33
4.27 Percussion caps 34
4.28 Acoustic requirements 34
4.29 Toy scooters 34

5 Test methods 36
5.1 General 36
5.2 Small parts test 37
5.3 Test for shape and size of certain toys 38
5.4 Small balls test 38
5.5 Test for pompoms 39
5.6 Test for pre-school play figures 39
5.7 Accessibility of a part or component 39
5.8 Sharp-edge test 41
5.9 Sharp-point test 43
5.10 Determination of thickness of plastic film and sheeting 45

5.11 Test for cords 45
5.12 Stability and overload tests 46
5.13 Test for closures and toy chest lids 48
5.14 Impact test for toys that cover the face 48
5.15 Kinetic energy of projectiles, bows and arrows 49
5.16 Free-wheeling facility and brake performance test 50
5.17 Determination of speed of electrically driven ride-on toys 51
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 52
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 65
5.27 Dynamic strength for toy scooters 66
5.28 Brake performance for toy scooters 68
5.29 Strength of toy scooter steering tubes 69
5.30 Resistance to separation of handlebar 70

Annex A (informative) Age-grading guidelines 72

Annex B (informative) Safety-labelling guidelines and manufacturer's markings 76

Annex C (informative) Design guidelines for toys attached to cribs or playpens 83

Annex D (informative) Toy gun marking 84

Annex E (informative) Rationale 85

Bibliography 98