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AMENDMENT 1
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Safety of toys —

Part 1:
Safety aspects related to mechanical and physical properties

AMENDMENT 1

Sécurité des jouets —

Partie 1:
Aspects de sécurité relatifs aux propriétés mécaniques et physiques

AMENDEMENT 1

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

Amendment 1 to ISO 8124-1:2009 was prepared by Technical Committee ISO/TC 181, *Safety of toys*.

Safety of toys —

Part 1:
Safety aspects related to mechanical and physical properties

AMENDMENT 1

Page 1, Scope

Amend the first sentence of Example 2 to read:

EXAMPLE 2 As a further example, a two-wheeled toy scooter has inherent and recognized hazards associated with its use (e.g. instability during use, especially whilst learning).

Amend list item b) as follows:

b) slingshots;

NOTE "Slingshots" are also known as "catapults" and are usually held in the hand; examples are given in Figure 1. Toy versions of medieval catapults and trebuchets are not exempt from this part of ISO 8124; an example is given in Figure 2.

Figure 1 — Examples of slingshots (not within the scope of this part of ISO 8124)

Figure 2 — Medieval toy catapult (within the scope of this part of ISO 8124)

Renumber all subsequent figures accordingly.

Pages 3 to 11, Terms and definitions

Replace the text of 3.4, 3.11, 3.44 and 3.57 with the following:

3.4
ball
spherical, ovoid, or ellipsoidal object, usually but not always designed or intended to be thrown, hit, kicked, rolled, dropped or bounced

3.11
crushing
injury to part of the body resulting from compression between surfaces

3.44
pompom
lengths or strands of fibre, yarns or threads clamped or secured and tied in the centre, and brushed up to form a substantially spherical, ovoid or ellipsoidal shape

NOTE 1 This definition includes substantially spherical-, ovoid-, and ellipsoidal-shaped attachments made of stuffed materials (see Figure 5).

NOTE 2 Tassels with long strands are not considered pompoms (see Figure 6).

(Existing Figures 3 and 4 have been renumbered as Figures 5 and 6).

3.57
soft-filled toy
stuffed toy
toy, clothed or unclothed, with soft body surfaces and filled with soft materials or a combination of soft and non-soft materials (e.g. pellets), allowing compression of the main part readily with the hand

NOTE A soft-filled toy may only be filled with a combination of soft and non-soft material if the main part of the toy can still be readily compressed with the hand.

Delete 3.34.

Add the following new definition after the existing 3.51:

3.52
reference box
hypothetical surface, which is the smallest rectangular parallelepiped that can enclose the toy without regard to minor appendages

Renumber terms and definitions accordingly.

Page 11, 4.1

Replace the first and second paragraphs with the following:

See E.2.

All toys shall be tested in accordance with the relevant tests in 5.1 to 5.22 in order to ensure that risks as a result of normal wear and/or deterioration are minimized.

Page 12, 4.2

Replace the first and second paragraphs with the following:

See E.3.

After normal-use tests, toys intended for children under 96 months, unless otherwise stated, shall be tested in accordance with the relevant tests in 5.24 to ensure that risks as a result of reasonably foreseeable abuse are minimized.

Page 12, 4.3.2

Replace the first and second paragraphs with the following:

See E.5.

Toys, removable components of toys, and components liberated from toys during testing in accordance with 5.24, which fit entirely in the small-parts cylinder when tested in accordance with 5.2 (small parts test), shall not expand by more than 50 % in any dimension when tested in accordance with 5.21 (expanding materials).

Page 20, 4.9

Amend to read:

See E.14.

a) Wires and other metallic components that are designed and intended to be bent, for example, to change the shape or position of a toy or part of a toy (e.g. in soft-filled toys) shall not break and produce hazardous sharp points, or protrude through any surface covering of the toy, when tested according to 5.24.8.2 (wires and other metallic components intended to be bent).

b) Wires that are not designed to be bent, but are likely to occasionally or accidentally be bent during play, shall not break and produce hazardous sharp points, or protrude through any surface covering of the toy, when tested according to 5.24.8.3 (wires likely to be bent).

c) The ends of spokes on toy umbrellas shall be protected. If the protection is removed when tested according to 5.24.6.4 (tension test for protective components), the ends of the spokes shall be free from sharp edges and sharp points when tested in accordance with 5.8 (sharp-edge test) and 5.9 (sharp-point test). Furthermore, if the protective components are removed by the tension test, the spokes shall have a minimum diameter of 2 mm and the ends shall be smooth, rounded and approximately spherical with no burrs.

Page 26, 4.15.1

Add the following after the existing text:

Rocking toys (e.g. rocking horses) are covered by these requirements.

NOTE Stability requirements for toy scooters with a stable base are given in 4.29.4.

Page 27, 4.15.2

Add the following text after the second paragraph:

The requirements in 4.15.2 do not apply to toy scooters (which are instead covered by the requirements in 4.29.3).

Page 34, 4.28

Amend b) to read as follows:

b) The A-weighted equivalent sound pressure level, $L_{p\mathrm{Aeq}}$, of continuous sounds produced by all other toys, except close-to-the-ear toys and pull and push toys, shall not exceed 85 dB.

Page 37, 5.2

Amend the third paragraph as follows:

Repeat the procedure with any removable component of the toy and any component liberated after testing according to 5.24 (reasonably foreseeable abuse tests). Repeating the procedure after testing in accordance with 5.24 is only applicable if specified by the associated requirement in Clause 4.

Page 38, 5.3

Amend existing Figures 16 and 17 as follows:

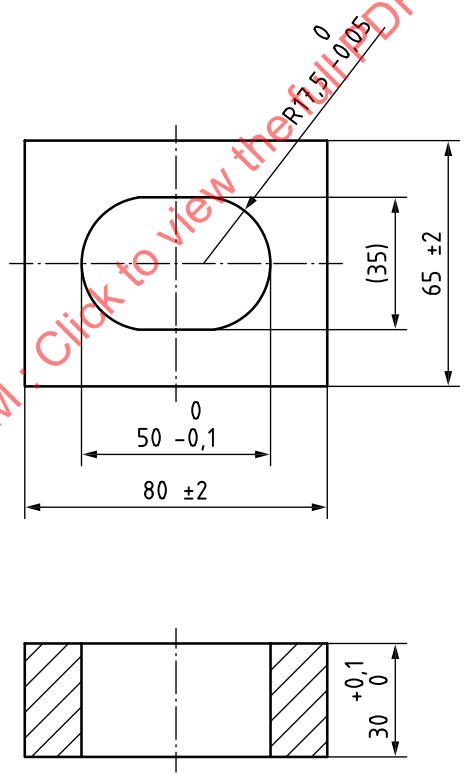

Figure 16 – Test template A

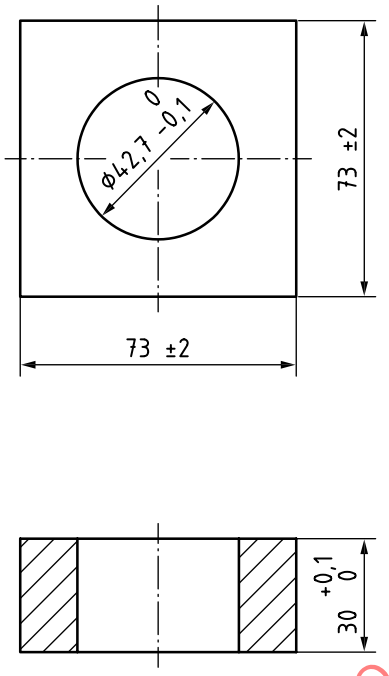

Figure 17 – Supplemental test template B

Page 45, 5.10

Amend as follows:

5.10 Determination of thickness of plastic film and sheeting

5.10.1 General

See 4.10.

Prepare plastic bags by cutting the sides, without stretching, into two single sheets.

5.10.2 Apparatus

A measuring device capable of measuring thickness to an accuracy of 4 µm, with plane upper and lower measuring surfaces having a diameter of (6 ± 1) mm that are parallel to within 5 µm and have polished surfaces, and which applies a compression force of (0,75 ± 0,25) N.

5.10.3 Procedure

Condition the specimen for at least 1 h at (21 ± 5) °C.

Ensure that the specimens and the faces of the measuring device are free from contamination (e.g. dust).

Check the zero point of the measuring device before starting the measurements and recheck after each series of measurements.

When determining the thickness, lower the foot gently to avoid deforming the material.

Measure the thickness of any sheet at ten equidistant points across the diagonal of any 100 mm × 100 mm area.

Determine whether the thickness complies with the requirements of 4.10 a).

Page 46, 5.12.2

Replace the third paragraph with the following:

Position the toy on the inclined surface so that it is facing in a direction that would most likely cause it to tip sideways. Turn the steering mechanism, if any, to the most onerous position. Chock wheels to restrict rolling, but allow casters to assume their natural position before chocks are applied.

Page 47, 5.12.4

Replace the second paragraph and the list with the following:

Ride-on toys shall be tested with the steering mechanism, if any, in the position where the toy is most likely to tip.

Page 48, 5.12.6

Replace the second paragraph with the following:

Place the toy on a smooth surface inclined (10 ± 1)° to the horizontal plane. Position the toy on the inclined surface such that it is facing in a direction that would most likely cause it to tip. Adjust any movable portions to the most onerous position, e.g. drawers fully drawn out or fully pushed in, whichever is more onerous.

Page 52, 5.21

Replace the existing text with the following:

See 4.3.2.

Condition the toy or component at (21 ± 5) °C and at a relative humidity of 40 % to 65 % for at least 7 h before the test. Measure the maximum dimensions x, y, and z of the toy or any component of the toy using calipers.

Submerge the toy or component completely in a container of demineralized water at (20 ± 5) °C for (24 ± 0,5) h. Ensure that sufficient water is used so that the toy or component still remains under water at the end of the test.

Remove the item using a pair of tongs. If the item cannot be removed because of insufficient mechanical strength, it is considered to comply with the requirement of 4.3.2.

Allow water adhering to the toy or component to drain for 1 min and re-measure the item.

After re-measuring, place the item in the demineralized water again and repeat the above procedure twice, such that the item has been measured after 24 h, 48 h and 72 h of submersion.

Calculate the expansion in the x, y and z dimensions as a percentage of the original dimension.

Determine whether the item complies with the requirements of 4.3.2.

Page 56, 5.24.6.1

Replace the fourth paragraph with the following:

Release the force, replace or reposition the clamp, or reposition the toy such that the tension load can be applied perpendicularly to the major axis of the test component.

Page 56 and 57, 5.24.6.2

Amend the title to read:

Tension test for seams in soft-filled (stuffed) toys, beanbag-type toys, and other similar filled toys

Replace the first paragraph with the following:

For toys constructed of pliable material having seams (including, but not limited to, seams which are stitched, glued, heat-sealed, or ultrasonically welded), the seams shall be subjected to a separate tension test.

Replace the third paragraph with the following:

Attach the clamps to the cover material of a completely assembled toy in such a manner that the outside diameter of the 19 mm discs at a point nearest to the seams will be approximately 13 mm from the edge of the seam stitching thread, but no closer. If threads are not used to create the seam, attach the clamps in such a manner that the edges of the 19 mm discs are approximately 13 mm from the edge of the seam, but no closer.

Page 57, 5.24.6.4

Replace the second and third paragraphs with the following:

Subject the part to be tested to a tensile force of (70 ± 2) N, applied evenly over a 5 s period, and maintain for 10 s. Apply the force in the most onerous direction in an attempt to remove the component.

Page 58, 5.24.8

Amend as follows:

5.24.8 Flexure test

5.24.8.1 General

See 4.9.

If the metallic wire has a covering, apply the test to the metallic wire in the condition in which it appears in the toy (i.e. do not remove the metallic wire from the toy).

Grip the metallic wire firmly between two metal cylinders, radiused pliers or equivalent metal pieces with a diameter of (10 ± 1) mm. At a point located 50 mm from the point of gripping or, if less than 50 mm protrudes, at the end of the metallic wire, apply a force of (70 ± 2) N perpendicular to the metallic wire. If the metallic wire bends by more than 60°, continue the test as follows.

Bend the metallic wire from the upright position to one side through 60°, and then bend in the opposite direction through 120°, and finally return to the upright position. This is one cycle.