

(PREVIEW)

Indian Standard

SAFETY OF ELECTRIC TOYS

1 Scope

This International Standard deals with the safety of toys that have at least one function dependent on electricity.

NOTE 1 Examples of toys also within the scope of this standard are

- constructional sets;
- experimental sets;
- functional toys (models that have a function similar to an appliance or installation used by adults);
- video toys (toys consisting of a screen and activating means, such as a joystick or keyboard. Separate screens having a rated voltage exceeding 24 V are not considered to be a part of the toy).

Additional requirements for experimental sets are given in Annex A.

Toys using electricity for secondary functions are within the-scope of this standard.

NOTE 2 A doll's house having an interior lamp is an example of such a toy.

Additional requirements for toys incorporating lasers and light-emitting diodes are given in Annex E.

In order to comply with this standard, electric toys also have to comply with ISO 8124-1, since it covers hazards other than those arising by the use of electricity.

NOTE 3 Transformers for toys and battery chargers are not considered to be a toy, even if supplied with it.

NOTE 4 If it is intended that a child also plays with the packaging, the latter is considered to be part of the toy

NOTE 5 This standard does not apply to

- toy -steam engines;
- scale models for adult collectors;
- folk dolls and decorative dolls and other similar articles for adult collectors;
- sports equipment;
- aquatic equipment intended to be used in deep water;
- equipment intended to be used collectively in playgrounds;
- amusement machines (IEC 60335-2-82);
- professional 'toys installed in public places (shopping centres, stations, etc.);
- products containing heating elements intended for use under the supervision of an adult in a teaching context;
- portable child-appealing luminaires (IEC 60598-2-10);
- Christmas decorations.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60068-2-75, *Environmental testing - Part 2-75: Tests - Test Eh: Hammer tests*

IEC 60083, *Plugs and socket-outlets for domestic and similar general use standardized in member countries of IEC*

IEC 60086-2, *Primary batteries - Part 2: Physical and electrical specifications*

IEC 60320-1, *Appliance couplers for household and similar general purposes - Part 1: General requirements*

IEC 60384-14, *Fixed capacitors ~or use in electronic equipment - Part 14: Sectional specification - Fixed capacitors for electromagnetic interference suppression and connection to the supply mains*

IEC 60417-1, *Graphical symbols for use on equipment - Part 1: Overview and application*

IEC 60529:1989, *Degrees of protection provided by enclosures (IP Code)*

IEC 60695-2-2:1991, *Fire hazard testing - Part 2: Test methods - Section 2: Needle-flame test*

IEC 60695-2-11, *Fire Hazard testing - Part 2-11: Glowing/hot-wire Glow-wire flammability test method for end-products*

IEC 60695-2-13, *Fire hazard testing - Part 2-13: Glowing/hot-wire Glow-wire ignitability test method for materials*

IEC 60695-10-2, *Fire hazard testing - Part 10: Guidance and test methods for the minimization of the effects of abnormal heat on electrotechnical products involved in fires -Section 2: Method for testing products made from non-metallic materials for resistance to heat using the ball pressure test*

IEC 60695-11-10, *Fire hazard testing - Part 11 -10: Test flames - 50 W horizontal and vertical flame test methods*

IEC 60730-1:1999, *Automatic electrical controls for household and similar use - Part 1: General requirements*

IEC 60738-1, *Thermistors - Directly heated positive step-function temperature coefficient - Part 1: Generic specification*

IEC 60825-1:1993, *Safety of laser products - Part 1: Equipment classification, requirements and user's guide*

Amendment 1 (1997)

Amendment 2 (2001) including its corrigendum 1 (2002)¹

IEC 61032:1997, *Protection of persons and equipment by enclosures - Probes for verification*

IEC 61058-1:2000, *Switches for appliances - Part f: General requirements*

IEC 61558-2-7, *Safety of power transformers, power supply units and similar - Part 2: Particular requirements for transformers for toys*

ISO 7000, *Graphical symbols for use on equipment - Index and synopsis*

ISO 8124-1:2000, *Safety of toys - Part 1: Safety aspects related to mechanical and physical properties*

ISO 8124-3, *Safety of toys - Part 3: Migration of certain elements*

ISO 9772, *Cellular plastics - Determination of horizontal burning specimens subjected to a small flame characteristics of small*