EESTI STANDARD EVS-EN 50088:2001

Elektrimänguasjade ohutus

Safety of electric toys

EESTI STANDARDIKESKUS

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 50088:2001 sisaldab Euroopa standardi EN 50088:1996+A1:1996+A2:1997 +AC:2007 ingliskeelset teksti.	This Estonian standard EVS-EN 50088:2001 consists of the English text of the European standard EN 50088:1996+A1:1996+A2:1997 +AC:2007.
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EN 50088

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Supersedes HD 271 S1:1982 and its amendments

Descriptors: Toys, electric toys, safety rules, accident prevention, children

English version

Safety of electric toys

Sécurité des jouets électriques

Sicherheit elektrischer Spielzeuge

This European Standard was approved by CENELEC on 1995-11-28. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Contents

Foreword

A proposal for a standard dealing with requirements for the safety of electric toys, document CLC/TC 61 (SEC) 702, was circulated under the enquiry procedure in September 1989. This proposal was discussed during the Helsinki meeting in May 1990, when it was decided to prepare a new draft.

Subsequent decisions took place during the meetings in
Brussels, November 1991;
Berlin, February 1993;
Oslo, April 1994;
Paris, November 1994;
and Dublin, May 1995.

During the Dublin meeting it was decided to submit a new draft to the voting procedure (fourth vote).

This draft was circulated in July 1995 and was ratified by CENELEC as EN 50088 on 1995-11-28.

This European Standard has been prepared by the Secretariat of CENELEC Technical Committee TC 61.

The following dates are applicable:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endoresement (dop) 1996-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1998-10-01

This European Standard replaces HD 271 S1:1982 and its amendments.

For products which have complied with HD 271 S1:1982 and its amendments A1:1986, A2:1989, A3:1989 and A4:1995 before 1998-10-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2001-10-01.

There are no special national conditions (snc) causing a deviation from this European Standard.

National deviations from this European Standard are listed in annex A.

Annexes C, E, F and G are normative. Annexes A, B and D are informative.

NOTE - The following print types are used:
- requirements: in roman type;
- *test specifications:* *in italic type;*
- notes: in small roman type.

Words in **bold** in the text are defined in clause 3.

Introduction

It has been assumed in the drafting of this European Standard that the execution of its provisions is entrusted to appropriately qualified and experienced people.

As a general rule, toys are designed and manufactured for particular categories of children. Their characteristics are related to the age and stage of development of the children and their intended use presupposes certain capabilities.

Accidents are frequently due to a toy either being given to a child for whom it is not intended or being used for a purpose other than for which it was designed. It is assumed that when choosing a toy or a game, account is taken of the physical and mental development of the child who will be playing with it.

The aim of this standard is to reduce risks when playing with toys, especially those risks which are not evident to users. However, it has to be recognized that some toys have risks inherent to their use which cannot be avoided. Consideration has been given to reasonably foreseeable use, bearing in mind that children are not generally as careful as adults.

Whilst this standard applies to new toys, it nevertheless takes into account the wear and tear of toys in use.

The fact that a toy complies with this standard does not absolve parents and other persons in charge of the child from the responsibility of supervising the child.

This standard covers the whole range of electric toys from small button cell operated lights to large sit-on cars powered by lead-acid cells. This results in different requirements and tests according to the type of toy. The criteria for the selection of the tests to be applied to the various types of toys are given in clause 6, with guidance in annex B.

In order to comply with this standard, electric toys also have to comply with EN 71.

A toy which complies with the text of this standard will not necessarily be judged to comply with the safety principles of the standard if, when examined and tested, it is found to have other features which impair the level of safety covered by these requirements.

A toy employing materials or having forms of construction differing from those detailed in the requirements of this standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be judged to comply with the standard.

This standard covers the essential safety requirements concerning the electrical properties, stated in annex II of EC Directive 88/378/EEC[1)] on the safety of toys.

This standard does not cover the disposal of batteries which contain materials which are hazardous to the environment, dealt with in EC Directive 91/157/EEC and 93/86/EEC[2)] on batteries.

1) 88/378/EEC — Council Directive of 3 May 1988 on the approximation of the laws of the Member States concerning the safety of toys.

2) 91/157/EEC — Council Directive of 18 March 1991 on batteries and accumulators containing certain dangerous substances.
93/86/EEC — Council Directive of 4 October 1993 adapting to technical progress Council Directive 91/157/EEC on batteries and accumulators containing certain dangerous substances.

1 Scope

This standard deals with the safety of electric **toys**. It also applies to electric **constructional sets** and electric **functional toys**.

Toys using electricity for functions other than the principal function are within the scope of this standard.

NOTE 1: A doll's house having an interior lamp is an example of such **toys**.

NOTE 2: The supply voltage may be obtained from a separate **transformer for toys** or from batteries which may be contained within the **toy** or in a **battery box**.

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

If the packaging in which the **toy** is sold is also intended to be played with, it is considered to be part of the **toy**.

NOTE 4: This standard does not apply to
- **experimental sets** (under consideration);
- **portable child-appealing luminaires** (EN 60598-2-10)[1)].

Furthermore, with respect to annex I of the EC directive concerning the safety of toys, this standard does not apply to
- christmas decorations;
- **scale models for adult collectors**;
- equipment intended to be used collectively in playgrounds;
- sports equipment;
- aquatic equipment intended to be used in deep water;
- folk dolls and decorative dolls and other similar articles for adult collectors;
- professional **toys** installed in public places (shopping centres, stations, etc.);
- fireworks, including percussion caps;
- sets of darts with metallic points;
- ovens, irons or other **functional products** supplied at a voltage exceeding 24 V;
- products containing **heating elements** intended for use under the supervision of an adult in a teaching context;
- vehicles with combustion engines;
- **toy** steam engines;
- bicycles designed for sport or for travel on the public highway;
- **video toys** which can be connected to a video screen, and which are supplied at a voltage exceeding 24 V;
- faithful reproductions of real fire arms;
- fashion jewellery for children.

For hazards other than those caused by electricity, EN 71 is applicable.

1) EN 60598-2-10: 1989 - Luminaires - Part 2: Particular requirements - Section Ten: Portable child-appealing luminaires

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

Reference	Year	Title
EN 71	series	Safety of toys
EN 71-1	1988	Part 1: Mechanical and physical properties
EN 71-3	1994	Part 3: Migration of certain elements
EN 60065	1993	Safety requirements for mains operated electronic and related apparatus for household and similar general use (IEC 65:1985 + A1:1987 + A2:1989 + A3:1992, modified)
EN 60068-2-63	1994	Environmental testing - Part 2: Tests - Test Eg: Impact, spring hammer (IEC 68-2-63:1991)
EN 60320-1	1987	Appliance couplers for household and similar general purposes (IEC 320:1981 + A1:1984 + A2:1985, modified)
EN 60335-1	1994	Safety of household and similar electrical appliances Part 1: General requirements (IEC 335-1:1991, modified)
EN 60529	1991	Degrees of protection provided by enclosures (IP Code) (IEC 529:1989)
EN 60695-2-2	1994	Fire hazard testing - Part 2: Test methods Section 2: Needle-flame test (IEC 695-2-2:1991)
EN 60730	series	Automatic electrical controls for household and similar use (IEC 730, modified)
EN 60742	1989	Isolating transformers and safety isolating transformers Requirements (IEC 742:1983, modified)
EN 61058-1	1992	Switches for appliances — Part 1: General requirements (IEC 1058-1:1990)
HD 243		Graphical symbols for use on equipment - Index, survey and compilation of the single sheets (IEC 417)
HD 441 S1	1983	Methods of test for the determination of the flammability of solid electrical insulating materials when exposed to an igniting source (IEC 707:1981)
IEC 83	1975	Plugs and socket-outlets for domestic and similar general use Standards
IEC 86-2	1994	Primary batteries - Part 2: Specification sheets
IEC 384-14	1993	Fixed capacitors for use in electronic equipment - Part 14: Sectional specification: Fixed capacitors for electromagnetic interference suppression and connection to the supply mains

IEC 695-2-1 1991 Fire hazard testing - Part 2: Test methods
Section 1: Glow-wire test and guidance

3 Definitions

For the purpose of this standard, the following definitions apply.

3.1.1 **toy:** Product designed or clearly intended for use in play by children under 14 years old.

3.1.2 **electric toy**: **Toy** having at least one function dependent on electricity.

NOTE: Non electric parts are considered to be parts of the **toy**.

3.1.3 **battery toy: Toy** which contains or uses one or more batteries as the only source of electrical energy.

NOTE: The batteries may be in a **battery box**.

3.1.4 **transformer toy: Toy** which is connected to the supply mains through a **transformer for toys** and using the supply mains as the only source of electrical energy.

3.1.5 **dual supply toy: Toy** which can be operated simultaneously or alternatively as a **battery toy** and a **transformer toy**.

3.1.6 **battery box**: Compartment which is separate from the **toy** and in which the batteries are placed.

3.1.7 **safety isolating transformer:** Transformer, the input winding of which is electrically separated from the output winding by an insulation at least equivalent to double insulation or reinforced insulation, and which is designed to supply an appliance or circuit at safety extra-low voltage.

3.1.8 **transformer for toys: Safety isolating transformer** specially designed to supply **toys** operating at safety extra-low voltage not exceeding 24 V [EN 60742].

NOTE: Either a.c. or d.c. or both may be delivered from the transformer.

3.2.1 **constructional set:** Collection of electric, electronic or mechanical parts intended to be assembled as various **toys**.

3.2.2 **experimental set:** Collection of electric or electronic components intended to be assembled in various combinations.

NOTE: The main aim of an **experimental set** is to facilitate the acquiring of knowledge by experiment and research. It is not intended to create a **toy** or equipment for practical use.