
**Gospodinjski in podobni električni aparati - Varnost - 1. del: Splošne zahteve -
Dopolnilo A15**

Household and similar electrical appliances - Safety - Part 1: General requirements

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke - Teil 1:
Allgemeine Anforderungen**iTeh STANDARD PREVIEW**

Appareils électrodomestiques et analogues - Sécurité - Partie 1: Exigences générales

(standards.itteh.ai)**Ta slovenski standard je istoveten z: EN 60335-1:2012/prA15**

SIST EN 60335-1:2012/oprA15:2020
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ICS:

| | | |
|--------|--------------------------------------|---|
| 13.120 | Varnost na domu | Domestic safety |
| 97.030 | Električni aparati za dom na splošno | Domestic electrical appliances in general |

SIST EN 60335-1:2012/oprA15:2020 **en,fr**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

DRAFT
EN 60335-1:2012

prA15

March 2020

ICS 13.120; 97.030

English Version

Household and similar electrical appliances - Safety - Part 1: General requirements

Appareils électrodomestiques et analogues - Sécurité -
Partie 1: Exigences générales

Sicherheit elektrischer Geräte für den Hausgebrauch und
ähnliche Zwecke - Teil 1: Allgemeine Anforderungen

This draft amendment prA15, if approved, will modify the European Standard EN 60335-1:2012; it is submitted to CENELEC members for enquiry.

Deadline for CENELEC: 2020-06-05.

It has been drawn up by CLC/TC 61.

If this draft becomes an amendment, CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment the status of a national standard without any alteration.

This draft amendment was established by CENELEC in three official versions (English, French, German).

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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Project: 69375

Ref. No. EN 60335-1:2012/prA15 E

EN 60335-1:2012/prA15:2020 (E)**European Foreword**

This document [EN 60335-1:2012/prA15:2020] has been prepared by CLC/TC 61 "Safety of household and similar electrical appliances".

This document is currently submitted to the Enquiry.

The following dates are proposed:

- latest date by which the existence of this document has to be announced at national level (doa) dor + 6 months
- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) dor + 12 months
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) dor + 36 months (to be confirmed or modified when voting)

This document has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

[SIST EN 60335-1:2012/kFprA15:2020
https://standards.iteh.ai/catalog/standards/sist/099f3cde-bcc1-43b9-a47b-07cc594ebc72/sist-en-60335-1-2012-kfpra15-2020](https://standards.iteh.ai/catalog/standards/sist/099f3cde-bcc1-43b9-a47b-07cc594ebc72/sist-en-60335-1-2012-kfpra15-2020)

NOTE for CCMC: the rational shall remain inside the first draft of Public Enquiry for share the rational of decision taken by WG1

Rationale:

Characteristics that can make appliances attractive to children

A potentially hazardous appliance can be made attractive to children (and others) but through the use of appropriate safety strategies, including design, guarding, and warnings and information, the risk of injury can be minimized. However, to achieve such risk minimization, the changing behaviors and capabilities of **children need** to be carefully considered. ISO/IEC Guide 50¹ advises that when developing or revising a standard for an appliance, the reasonably foreseeable use by children and their interaction with it should be taken into account. This does not negate the need for appropriate supervision of children by adults nor safety strategies such as the safe storage of potentially hazardous appliances. The Guide notes that young children learn by, among other processes, exploring their environment and copying the actions of adults, older children and even media characters. While adults understand that exploration is a process of “discovering the unknown” that involves risk, children, especially when young, face additional risk, due to their limited risk perception and decision-making ability, poor understanding of their own limitations and their skills-related and cognitive immaturity, all of which impact their capacity to avoid danger. While children are capable of perceiving some risk, they are not able to assess the risk involved in a potentially hazardous situation until they are capable of understanding consequences (cause and effect) at around 7 to 8 years old.

From early infancy, children are driven by an inborn drive to explore. Children’s exploration behavior can be classified in terms of basic strategies which correspond to their emerging abilities. Since children experience a somewhat predictable sequence of physical and mental maturation, they also employ predictable patterns of exploratory behaviour. These exploratory behaviours can result in the child using appliances in ways that were not intended by the manufacturer and using or interacting with appliances that are not intended for them. Children, especially young children, can be attracted to an appliance by certain characteristics of the appliance. Unpublished research undertaken for PROSAFE² by Intertek RAM has identified child-appealing characteristics that may be associated with household appliances³. To determine these characteristics:

- experts were consulted to verify findings and discuss the potential impact of cultural differences;
- literature on existing knowledge and interpretation of child appealing characteristics was reviewed to define preliminary characteristics that may be considered child appealing;
- parents (and/or carers) of children up to 14 years old were surveyed to understand from their perspective the child appealing characteristics of appliances in the home;
- children of different ages were observed of children to determine and define the characteristics of household appliances that children find appealing

The Intertek RAM research concluded that in relation to household appliances, the following characteristics have the greatest potential to influence child attraction: function, movement, color, characters (shapes of characters, faces and images), sounds, lights, geometric shape, texture, size,

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It draws heavily on the research report and also summarizes the results. Smell and taste. Size, smell and taste (unless associated with another characteristic) were considered to be the least likely to influence a child's attraction to a household appliance.

The research suggested that in addition to these characteristics, three other factors need to be taken into consideration when understanding child-appealing characteristics: the context of the products use; the child's individual preference; and the fact that different attractive features rarely function in isolation.

As the commentary below illustrates, the characteristics that can make an appliance attractive vary by the age of the child. Conclusions of the research included the following:

Function

Function can be considered to be one of the most significant characteristics of a household appliance that affects its attraction. No matter what that function is, e.g. to vacuum, to heat up, to blow air, to make light, etc. children of all ages will be increasingly attracted to this as they grow up and understand its intended use. This attraction may be regardless of any of the other characteristics which the product has. It is important to note, however, that increase in attraction may be influenced by the characteristics of movement, color, characters, etc.

Children under 4 years old are attracted to features and functions of appliances where cause and effect can be explored (e.g. pushing buttons to hear a sound). As children get older they become interested to know how the product works and begin to use the product as intended.

Movement

Children up to the age of nine years are particularly attracted to the movement associated with household appliances such as fan blades and washing machines. This attraction is increased when it is related to the cause and effect response (e.g. as a result of a button being pressed). Sudden or fast movements were also noted as particularly attractive for children. Parts of appliances which can be manually moved by the child, such as turning a dial or pushing a button, are attractive as well for the reasons noted above.

Color

Colors are attractive across all age groups and were frequently mentioned throughout the study. The most frequent colors noted were bright, pink and primary (red, blue and yellow) colors. Characteristics of the surface texture such as shiny and reflective were also thought to be attractive.

Characters, faces, and images

Characters, faces and images (such as logos) are attractive to children of all ages, whether these are 2D or 3D. Children under the age of three years old are particularly attracted to faces, such as smiley and people's faces. As children get older, the attraction to characters shifts from simple faces and animated cartoon characters (such as Thomas the Tank Engine) to real life characters, such as those from television programmes and sports. Children are also attracted to images that may be associated with these characters e.g. the logo from their favourite football team.

Sounds

Music, melodies and sounds produced by household appliances (e.g. beeping and buzzing) are attractive to children of all ages. Furthermore, continuous and monotonous sounds generated by appliances through their operation are also considered generally attractive to children. However, interest in these types of sounds begins to decrease as children grow older

Lights

Lights on products are generally attractive to children of all ages. Flashing, colourful lights are particularly attractive. Lights that are made as a consequence of a child's action (cause and effect) are also considered attractive to children

Shape

Specific characteristics of shape were not often mentioned in the research undertaken; however "round shapes" were noted for all age groups. The younger age groups (under nine years old) noted that ball shapes and shapes that were easy to hold were most attractive and for the older age group, recognizable objects, (e.g. shaped like a car) were thought to be attractive.

Textures

Textures were noted to be attractive for the younger age groups (up to 8 years old). Like shape, there is no clear guidance on the specific textures that children find most attractive; however, items with various textures are likely to have an influence on child attractiveness

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- ¹ ISO/IEC Guide 50:2014. Safety aspects — Guidelines for child safety in standards and other specifications. <https://standards.iteh.ai/catalog/standards/sist/09913cde-bcc1-43b9-a47b-07cc594ebc72/sist-en-60335-1-2012-kfpra15-2020>
- ² PROSAFE (Product Safety Forum of Europe) is a non-profit professional organisation for market surveillance authorities and officers from throughout the European Economic Area.
- ³ The PROSAFE Final Implementation Report, which summarises the research report, is available at http://www.prosafe.org/images/Documents/JA2009/ChApDes_Final_Report-version_20130304-published.pdf. A tool intended to assist in the assessment of whether or not an appliance can be regarded as appealing to children thus requiring further risk assessment is available at <http://ec.europa.eu/DocsRoom/documents/8712/attachments/1/translations/en/renditions/pdf>. It draws heavily on the research report and also summarises the results.

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1 Modification to clause 22 Construction

In clause 22.44, replace the text by the following:

An appliance is child appealing if one of the following criteria is present:

- appliance decorated using faces, cartoon like character, or similar images,
- appliance using shapes representing animals, characters, persons or scale models

An appliance can also be child appealing if more than one of the following criteria are present:

- using non-functional light (functional light is e.g. illumination of an object or area, signal indicating status of an appliance)
- using non-functional sound (e.g. music)
- using non-functional movement
- using light (e.g. laser or intense pulsed light devices use light appropriately as part of their function)

Secretary's note 1: NC shall consider if the last dashed item is still relevant or is specific to 2- 113

Secretary Note 2: ED GR considers the first and the fourth dashed items are in contradiction and suggests to delete the fourth dashed item.

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If the appliance is child appealing, has a mass less than 4 kg and is mounted or normally intended for use at a height less than 80 cm, the following conditions have to be met:

- No surface (both functional surfaces and non-functional) that are accessible by means of test probe 19 of IEC 61032 shall exceed the temperature rises stated below:

Temperature rise

| | |
|---|------------|
| <i>– of bare metal</i> | 38K |
| <i>– of coated metal</i> | 42K |
| <i>– of glass and ceramic</i> | 51K |
| <i>– of plastic having a thickness exceeding 0,4 mm</i> | 58K |

- No dangerous moving parts are accessible by means of test probe 19 of IEC 61032
- No dangerous live parts are accessible by means of test probe 19 of IEC 61032
- No vessel in the appliance shall contain a liquid that exceeds 38°C in normal use.

Compliance is checked by inspection and appropriate tests.

Secretary's note 3: NC are asked to comment if the 4kg is applicable value for child appealing