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# TECHNICAL SPECIFICATION

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**Electric toasters for household and similar use – Methods and measurements  
for improving accessibility**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### **ELECTRIC TOASTERS FOR HOUSEHOLD AND SIMILAR USE – METHODS AND MEASUREMENTS FOR IMPROVING ACCESSIBILITY**

#### FOREWORD

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- the required support cannot be obtained for the publication of an International Standard, despite repeated efforts, or
- the subject is still under technical development or where, for any other reason, there is the future but no immediate possibility of an agreement on an International Standard.

Technical Specifications are subject to review within three years of publication to decide whether they can be transformed into International Standards.

IEC TS 62835, which is a Technical Specification, has been prepared by IEC technical committee 59: Performance of household and similar electrical appliances.

The text of this Technical Specification is based on the following documents:

Enquiry draft	Report on voting
59/618/DTS	59/631/RVC

Full information on the voting for the approval of this Technical Specification can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

In this Technical Specification, the following type is used:

– *compliance statements: in italic type.*

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- transformed into an International standard,
- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

A bilingual version of this publication may be issued at a later date.

## INTRODUCTION

Ever greater demands are now being placed on the accessibility of products, but despite this, there has been no easily available data for assessing and evaluating products from an accessibility perspective. An effective way to conduct product development is to work on the basis of adequate testing methods for assessing various properties, as accessibility recommendations can be formulated more clearly and be given greater emphasis during the development of appliances. Accessibility properties must be prioritised alongside functional, technical and production-related properties.

For this purpose, an inventory of sources with a product-accessibility focus has been drawn up, which has given useful basic information and data for setting recommendations for the design of products. This Technical Specification on toasters is a result of this work, and provides information in the form of accessibility facts and an understanding of the interaction of user and appliance.

This Technical Specification is being issued in the Technical Specification series of publications (according to the ISO/IEC Directives, Part 1, 3.1.1.1) as a “prospective standard for provisional application” in the field of accessibility of household appliances because there is an urgent need for guidance on how standards in this field should be used to meet an identified need.

This Technical Specification provides recommendations and measurements for product characteristics of household toasters, which contribute to their accessibility and underlying ergonomic principles. These recommendations originate from scientific knowledge and the theory of ergonomics, physiology, product design and other relevant disciplines. This Technical Specification applies ISO/IEC Guide 71 and ISO/TR 22411 to toasters. Data is drawn from ISO/TR 22411 and, if not specified there, from other sources.

The purpose of designing and evaluating toasters with regard to accessibility is to maximize the number of people who can readily use the products. Accessible products can be designed by incorporating product characteristics that are beneficial for the user. This Technical Specification explains the characteristics, which meet the needs and abilities of an intended user.

However, the characteristics that a product needs for accessibility are dependent on the type of user and task. This Technical Specification therefore includes objective criteria regarding accessibility for product characteristics of the toaster.

## **ELECTRIC TOASTERS FOR HOUSEHOLD AND SIMILAR USE – METHODS AND MEASUREMENTS FOR IMPROVING ACCESSIBILITY**

### **1 Scope**

This Technical Specification contains accessibility recommendations to enable the use of toasters by older persons and persons with disabilities. It provides guidance to achieve more accessible toasters.

This Technical Specification provides test methods and data that support accessible design.

This Technical Specification gives guidance to apply ISO/TR 22411 and ISO/IEC Guide 71 to the design of toasters and to IEC 60442. It does not deal with safety issues nor cover toasters for professional use.

### **2 Normative references**

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

IEC 60335-1, *Household and similar electrical appliances – Safety – Part 1: General requirements*

IEC 60335-2-9, *Household and similar electrical appliances – Safety – Part 2-9: Particular requirements for grills, toasters and similar portable cooking appliances*

IEC 60417, *Graphical symbols for use on equipment* (available at: <http://www.graphical-symbols.info/equipment>)

IEC 60442:1998, *Electric toasters for household and similar purposes – Methods for measuring the performance*  
IEC 60442:1998/AMD1:2003<sup>1</sup>

IEC TR 61592, *Household electrical appliances – Guidelines for consumer panel testing*

IEC 82079-1:2012, *Preparation of instructions for use – Structuring, content and presentation – Part 1: General principles and detailed requirements*

ISO/IEC Guide 37, *Instructions for use of products by consumers*

ISO/IEC Guide 71:2014, *Guide for addressing accessibility in standards*

ISO 2813, *Paints and varnishes – Determination of gloss value at 20 degrees, 60 degrees and 85 degrees*

ISO/TR 22411:2008, *Ergonomics data and guidelines for the application of ISO/IEC Guide 71 to products and services to address the needs of older persons and persons with disabilities*

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<sup>1</sup> There exists a consolidated edition 2.1 including IEC 60442:1998 and its Amendment 1:2003.

ISO 7000, *Graphical symbols for use on equipment – Registered symbols* (available at: <http://www.graphical-symbols.info/equipment>)

EN 12464-1, *Light and lighting – Lighting of work places – Part 1: Indoor work places*

EN 13300, *Paints and varnishes – Water-borne coating materials and coating systems for interior walls and ceilings. Classification*