

**KODUMAJAPIDAMISES KASUTATAVAD ELEKTRILISED
TOIDUVALMISTUSSEADMED. OSA 1: Pliidid, ahjud,
auruahjud ja grillid. Toimivuse mõõtemetodid**

**Household electric cooking appliances - Part 1: Ranges,
ovens, steam ovens and grills - Methods for measuring
performance (IEC 60350-1:2016 , modified +
IEC 60350-1:2016/A1:2021)**

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 60350-1:2016+A1:2021 sisaldab Euroopa standardi EN 60350-1:2016 ja selle muudatuse A1:2021 ingliskeelset teksti.	This Estonian standard EVS-EN 60350-1:2016+A1:2021 consists of the English text of the European standard EN 60350-1:2016 and its amendment A1:2021.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas. Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 04.11.2016, muudatus A1 25.06.2021.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation. Date of Availability of the European standard is 04.11.2016, for A1 25.06.2021.
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English Version

Household electric cooking appliances - Part 1: Ranges, ovens, steam ovens and grills - Methods for measuring Performance (IEC 60350-1:2016 , modified + IEC 60350-1:2016/A1:2021)

Appareils de cuisson électrodomestiques - Partie 1:
Cuisinières, fours, fours à vapeur et grills - Méthodes de
mesure de l'aptitude à la fonction
(IEC 60350-1:2016 , modifiée + IEC 60350-
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Elektrische Kochgeräte für den Hausgebrauch - Teil 1:
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Messung der Gebrauchseigenschaften
(IEC 60350-1:2016 , modifiziert + IEC 60350-
1:2016/A1:2021)

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European foreword

The text of document 59K/263/CDV, future edition 2 of IEC 60350-1, prepared by SC 59K "Performance of household and similar electrical cooking appliances" of IEC/TC 59 "Performance of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60350-1:2016.

A draft amendment, which covers common modifications to IEC 60350-1 (59K/263/CDV), was prepared by CLC/TC 59X "Performance of household and similar electrical appliances" and approved by CENELEC.

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A1 Amendment A1 European foreword

The text of document 59K/328/FDIS, future IEC 60350-1/A1, prepared by SC 59K "Ovens and microwave ovens, cooking ranges and similar appliances" of IEC/TC 59 "Performance of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60350-1:2016/A1:2021.

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INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Household electric cooking appliances –
Part 1: Ranges, ovens, steam ovens and grills – Methods for measuring
performance**

**Appareils de cuisson électrodomestiques –
Partie 1: Cuisinières, fours, fours à vapeur et grils – Méthodes de mesure de
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IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland

Tel.: +41 22 919 02 11
info@iec.ch
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IEC 60350-1

Edition 2.1 2021-05
CONSOLIDATED VERSION

INTERNATIONAL STANDARD

NORME INTERNATIONALE



**Household electric cooking appliances –
Part 1: Ranges, ovens, steam ovens and grills – Methods for measuring
performance**

**Appareils de cuisson électrodomestiques –
Partie 1: Cuisinières, fours, fours à vapeur et grils – Méthodes de mesure de
l'aptitude à la fonction**

INTERNATIONAL
ELECTROTECHNICAL
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INTERNATIONALE

ICS 97.040.20

ISBN 978-2-8322-9824-4

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

HOUSEHOLD ELECTRIC COOKING APPLIANCES –

**Part 1: Ranges, ovens, steam ovens and grills –
Methods for measuring performance**

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International Standard IEC 60350-1 has been prepared by subcommittee 59K: Performance of household and similar electrical cooking appliances, of IEC technical committee 59: Performance of household and similar electrical appliances.

This second edition cancels and replaces the first edition published in 2011. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- new definitions for "**set to off mode**" and "**set to standby mode**" are included in Clause 3;
- reference to ISO 80000 regarding rounding;
- more exact determination of the mass of the appliances (6.2);
- update of the existing 7.3 in order to improve the clarity of procedure;

- additional temperature requirement in 7.4.3 to ensure an adequate temperature setting during the energy measurement process;
- editorial changes in 7.6.1.3, 7.6.2.1, 7.6.2.2 and 7.6.2.3;
- revision of Clause 8 in order to increase the repeatability for the measurements for steam ovens;
- Clause 12 "Standby power" is renamed to "Consumption measurement of low power modes" and the content is adapted for IEC 62301:2011;
- replacing the supplier for the colouring measurement device in Clause C.6, because the previous device is no longer available;
- adaptation of Annex A to the new supplier of colouring measurement devices;
- adaptation of Annex E;
- measurement method for measuring the consumption of the **cooling down period** is added in the informative, new Annex G;
- measurement method to check applied microwave energy during the measurement according to 7.4 is added in the informative Annex H;
- new Annex I for marking the temperature setting for checking the oven temperature.

This publication contains an attached file in the form of an Excel 97 file. This file is intended to be used as a complement and does not form an integral part of the publication.

The text of this standard is based on the following documents:

FDIS	Report on voting
59K/273/FDIS	59K/277/RVD

Full information on the voting for the approval of this standard 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.

Words in **bold** in the text are specifically defined in Clause 3.

A list of all parts in the IEC 60350 series, published under the general title *Household electric cooking appliances*, can be found on the IEC website.

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Amendment 1 to IEC 60350-1:2016 has been prepared by subcommittee 59K: Performance of household and similar electrical cooking appliances, of IEC technical committee 59: Performance of household and similar electrical appliances.

The text of this Amendment is based on the following documents:

FDIS	Report on voting
59K/328/FDIS	59K/331/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Amendment is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications/.

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

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.



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HOUSEHOLD ELECTRIC COOKING APPLIANCES –

Part 1: Ranges, ovens, steam ovens and grills – Methods for measuring performance

1 Scope

This part of IEC 60350 specifies methods for measuring the performance of electric **cooking ranges, ovens, steam ovens, and grills** for household use.

NOTE 3 This document is also applicable to portable appliances with similar functionalities that were previously covered by the withdrawn IEC 61817.

The **ovens** covered by this standard may be with or without microwave function.

Manufacturers should define the primary cooking function of the appliance – microwave function or thermal heat. The primary cooking function should be measured with an existing method according to energy consumption. If the primary cooking function is declared in the instruction manual as a microwave function, IEC 60705 is applied for energy consumption measurement. If the primary cooking function is declared as a thermal heat, then IEC 60350-1 is applied for energy consumption measurement.

If the primary function is not declared by the manufacturer, the performance of the microwave function and thermal heat should be measured as far as it is possible.

NOTE 1 For measurement of energy consumption and time for heating a load (see 7.4), this standard is furthermore not applicable to:

- microwave combination function;
- ovens with reciprocating trays or turntable;
- small cavity ovens;
- ovens without adjustable temperature control;
- heating functions other than defined in 3.12 to 3.14;
- appliances with only solo **steam function** (3.15).

NOTE 2 This standard does not apply to

- microwave ovens (IEC 60705),
- ~~deleted text~~

This standard defines the main performance characteristics of these appliances which are of interest to the user and specifies methods for measuring these characteristics.

This standard does not specify a classification or ranking for performance.

NOTE 3 Some of the tests which are specified in this standard are not considered to be reproducible since the results may vary between laboratories. They are therefore intended for comparative testing purposes only.

NOTE 4 This standard does not deal with safety requirements (IEC 60335-2-6 and IEC 60335-2-9).

NOTE 5 Appliances covered by this standard may be built-in or for placing on a working surface or the floor.

NOTE 6 There is no measurement method for the energy consumption for grilling and **steam functions** available.

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 60584-2, *Thermocouples – Part 2: Tolerances*

IEC 62301, *Household electrical appliances – Measurement of standby power*

ISO 80000-1:2009, *Quantities and units – Part 1: General*

CIE 15, *Colorimetry*

3 Terms and definitions

For the purposes of this document the following terms and definitions apply.

3.1

cooking range

appliance having a **hob** and at least one **oven** and which may incorporate a **grill**

3.2

hob

appliance or part of an appliance which incorporates one or more **cooking zones** and/or **cooking areas** including a **control** unit

Note 1 to entry: A **hob** is also known as a cooktop.

Note 2 to entry: The **control** unit can be included in the **hob** itself or integrated in a **cooking range**.

3.3

oven

appliance or compartment of a **cooking range** in which food is cooked by radiation, by natural convection, by forced-air circulation or by a combination of these heating methods

3.4

pyrolytic self-cleaning oven

oven in which cooking deposits are removed by heating the **oven** to a sufficiently high temperature

3.5

steam oven

appliance or compartment of a **cooking range** in which food is cooked mainly by steam condensation at ambient pressure

Note 1 to entry: Appliances are fitted with their own steam generator.

Note 2 to entry: Steam does not mean the evaporated water from the food.

3.6

combi steam oven

appliance or compartment of a **cooking range** in which food is cooked by a combination of **oven** (3.3) and **steam oven** (3.5)