BS EN 60350-2:2018

BSI Standards Publication

Household electric cooking appliances

Part 2: Hobs - Methods for measuring performance

National foreword

This British Standard is the UK implementation of EN 60350-2:2018. It is derived from IEC 60350-2:2017. It supersedes BS EN 60350-2:2013+A11:2014, which will be withdrawn on 19 January 2021.

The CENELEC common modifications have been implemented at the appropriate places in the text. The start and finish of each common modification is indicated in the text by tags 〈C〉 〈C〉.

The UK participation in its preparation was entrusted to Technical Committee CPL/59, Performance of household electrical appliances.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Compliance with a British Standard cannot confer immunity from legal obligations.

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Amendments/corrigenda issued since publication

Date	Text affected

EUROPEAN STANDARD

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EN 60350-2

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Supersedes EN 60350-2:2013

English Version

Household electric cooking appliances - Part 2: Hobs - Methods for measuring performance (IEC 60350-2:2017 , modified)

Appareils de cuisson électrodomestiques - Partie 2: Tables de cuisson - Méthodes de mesure de l'aptitude à la fonction (IEC 60350-2:2017 , modifiée)

Elektrische Kochgeräte für den Hausgebrauch - Teil 2: Kochfelder - Verfahren zur Messung der Gebrauchseigenschaften (IEC 60350-2:2017 , modifiziert)

This European Standard was approved by CENELEC on 2017-05-15. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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

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European foreword

The text of document 59K/293/FDIS, future edition 2 of IEC 60350-2, 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 60350-2:2018.

A draft amendment, which covers common modifications to IEC 60350-2 (59K/287/CDV), was prepared by CLC/TC 59X "Performance of household and similar electrical appliances" and approved by CENELEC.

The following dates are fixed:

latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2018-07-19
latest date by which the national standards conflicting with this document have to be withdrawn	(dow)	2021-01-19

This document supersedes EN 60350-2:2013.

An Excel 97-2003 data calculation program is available with this document for the automatic calculation of the energy consumption.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 60350-2:2017 are prefixed “Z”.

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 Regulations.

For the relationship with EU Regulations see informative Annex ZZA and Annex ZZB which are integral parts of this document.

Endorsement notice

The text of the International Standard IEC 60350-2:2017 was approved by CENELEC as a European Standard with agreed common modifications.

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu

Publication	Year	Title	EN/HD	Year
IEC 60584-2	1982	Thermocouples - Part 2: Tolerances	EN 60584-2	1993
IEC 62301	-	Electrical and electronic household and office equipment - Measurement of low power consumption	EN 50564	-
ISO 80000-1	2009	Quantities and units - Part 1: General	EN ISO 80000-1	2013
CIE 15.2		Colorimetry	-	-

Annex ZB
(informative)

Uncertainty of measurements

Following IEC/TR 61923 "*Household electrical appliances – Method of measuring performance – Assessment of repeatability and reproducibility*", the following expanded uncertainties for measurements according to this European Standard may be assumed.

In 2011, a round robin test was performed with 12 laboratories participating from all over Europe. One of the objectives was to check the robustness and precision of the measurement of energy consumption. Three technologies were tested: "solid plate", "radiant heater", "induction", along with three technologies for the control system: "switch", "energy regulator", and "electronic control". The size of the hobs is the most common one on the market: 60 cm with 4 cooking zones. To cover a reasonable amount of labor only one cooking zone with a diameter of 180 mm were considered.
Results were analyzed by CLC/TC 59X/WG 10 together with CECED, and expanded uncertainties were calculated as shown in Table ZB.1.

Table ZB.1 – Relative expanded uncertainty [a] of measured values of this European Standard Measured parameter

Relative expanded uncertainty [a] of measured values of this European Standard Measured parameter	**Relative expanded uncertainty of measured value [b]** (k = 2)
energy consumption per cooking zone calculated per kg	2,75 %
Energy consumption per cooking area calculated per kg	[c]
Energy consumption per hob calculated per kg	[c]

[a] The expanded uncertainty only describes the uncertainty of the measuring method while the variance of the product is not included.

[b] These values are the average of measurement figures taken from different technology, see above.

[c] Not measured in this ring test.

Annex ZZA
(informative)

Relationship between this European Standard and the ecodesign requirements of Commission Regulation (EU) No 66/2014 aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/495 Standardization mandate to CEN, CENELEC and ETSI under Directive 2009/125/EC relating to harmonized standards in the field of Ecodesign to provide one voluntary means of conforming to the ecodesign requirements of Commission Regulation (EU) No 66/2014 of 14 January 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household **hobs** and range hoods [OJ L 29/33, 31.01.2014].

Once this standard is cited in the Official Journal of the European Union under that Regulation, compliance with the normative clauses of this standard given in Table ZZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding ecodesign requirements of that Regulation and associated EFTA Regulations.

Table ZZA.1 — Correspondence between this European Standard and Commission Regulation (EU) No 66/2014 of 14 January 2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for household hobs [OJ L 29/33, 31.01.2014] and Commission's standardization request M/495 Standardization mandate to CEN, CENELEC and ETSI under Directive 2009/125/EC relating to harmonized standards in the field of Ecodesign

Ecodesign requirements of Regulation No 66/2014 [OJ L 29/33, 31.01.2014]	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
General description of the appliance model; number of cooking zones and/or areas; the heating technology.	1 Scope 2 Normative references 3 Terms and definitions	
Determining the size of cooking zones and cooking areas.	6.3 Cooking zones and cooking areas	
Measuring the energy consumption of a cooking zone or a cooking area of a domestic hob for one standardized cooking cycle.	5 General conditions for the measurement 7.1 General 7.2 Purpose 7.3 Determine a cookware set to assess a hob with cooking zones 7.4 Positioning the cookware on a cooking zone 7.5 Procedure for measuring the energy consumption of a cooking process Annex A.1 (normative) General Annex A.2 Hob with cooking area Annex A.3 Positioning on a cooking area Annex B (informative) Aids for measuring the energy consumption according to clause 7 Annex C (informative) Examples how to select and position the	Excluding 5.6.2 as this alternative cookware leads only to comparative testing results.

	cookware for 86 measurements according to clause 7 and Annex A F.3 Stainless steel for bottom material of the standardized cookware F.4 Cookware for measuring the energy consumption and heating up time	
Evaluation of the result on energy consumption and determining the normalized energy consumption in Wh / 1000 g water.	7.5.4 Evaluation and calculation	
Calculation sheet	Annex E (informative) Data and Calculation Sheet: Energy consumption of a cooking process (see clause 7 and Annex A)	

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the products falling within the scope of this standard.

Annex ZZB
(informative)

Relationship between this European Standard and the ecodesign requirements of Commission Regulation (EC) No 1275/2008 aimed to be covered

This European Standard has been prepared under a Commission's standardization request M/439 Mandate to CEN, CENELEC and ETSI for standardization in the field of standby and off modes power consumption measurement for energy using products (EuPs) to provide one voluntary means of conforming to the ecodesign requirements of Commission Regulation (EC) No 1275/2008 of 17 December 2008 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment [OJ L 339, 18.12.2008].

Once this standard is cited in the Official Journal of the European Union under that Regulation, compliance with the normative clauses of this standard given in Table ZZC.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding ecodesign requirements of that Regulation and associated EFTA regulations.

Table ZZB.1 – Correspondence between this European Standard and Commission Regulation (EC) No 1275/2008 of 17 December 2008 implementing Directive 2005/32/EC of the European Parliament and of the Council with regard to ecodesign requirements for standby and off mode electric power consumption of electrical and electronic household and office equipment [OJ L 339, 18.12.2008] and Commission's standardization request M/439 Mandate to CEN, CENELEC and ETSI for standardization in the field of standby and off modes power consumption measurement for energy using products (EuPs)

Ecodesign requirements of Regulation (EC) No 1275/2008 [OJ L 339, 18.12.2008]	Clause(s) and subclause(s) of this EN	Remarks / Notes
Power consumption requirements for standby- and off-mode	12 Power measurement of low power modes	

WARNING 1 — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 — Other Union legislation may be applicable to the products falling within the scope of this standard.