

BS EN 60661:2014



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Methods for measuring the performance of electric household coffee makers

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National foreword

This British Standard is the UK implementation of EN 60661:2014. It is identical to IEC 60661:1999, incorporating amendment 1:2003 and amendment 2:2005. It supersedes BS EN 60661:2001 which is withdrawn.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 2 is indicated by A2 A2.

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.

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English Version

Methods for measuring the performance of electric household
coffee makers
(IEC 60661:1999 , modified + A1:2003 , modified + A2:2005 ,
modified)

Méthodes de mesure de l'aptitude à la fonction des
cafetières électriques à usage domestique
(CEI 60661:1999 , modifiée + A1:2003 , modifiée +
A2:2005 , modifi)

Verfahren zur Messung der Gebrauchseigenschaften
elektrischer Haushalt-Kaffeebereiter
(IEC 60661:1999 , modifiziert + A1:2003 , modifiziert +
A2:2005 , modifiziert)

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

This document (EN 60661:2014) consists of the text of IEC 60661:1999 + A1:2003 + A2:2005 prepared by IEC/SC 59G "Small kitchen appliances" (merged in IEC/SC 59L) and IEC/SC 59L "Small household appliances" of IEC TC 59 "Performance of household and similar electrical appliances", together with the common modifications prepared by working group CLC/TC 59X/WG 15 "Coffee makers" of CLC/TC 59X "Performance of household and similar electrical appliances".

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2015-05-02
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2016-11-25

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 60661:1999 + A1:2003 + A2:2005 are prefixed "Z".

This document supersedes EN 60661:2001 + A1:2003 + A2:2005.

EN 60661:2014 includes the following significant technical changes with respect to EN 60661:2001 and its amendments: EN 60661:2014 now takes into account Mandate M/495 "Standardisation mandate to CEN, CENELEC and ETSI under Directive 2009/125/EC relating to harmonised standards in the field of Ecodesign" and its Annex A.

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The text of the International Standard IEC 60661:1999 + A1:2003 + A2:2005 was approved by CENELEC as a European Standard with agreed common modifications.

Annex ZA (normative)

Specification of cups

ZA.1 General

Standardization of coffee cups for 0,12 l coffee and 0,04 l espresso is necessary in order to minimise the influence of the used cup on energy measurement for coffee appliances. The main factor of influence is the in-cup temperature measurement. The critical parameters influencing the in-cup temperature are the cup geometry, the cup mass and the cup material. Therefore, cups complying with ZA.2 to ZA.4 shall be used.

ZA.2 Cup geometry

Regular cups shall be as in Figure ZA.1.

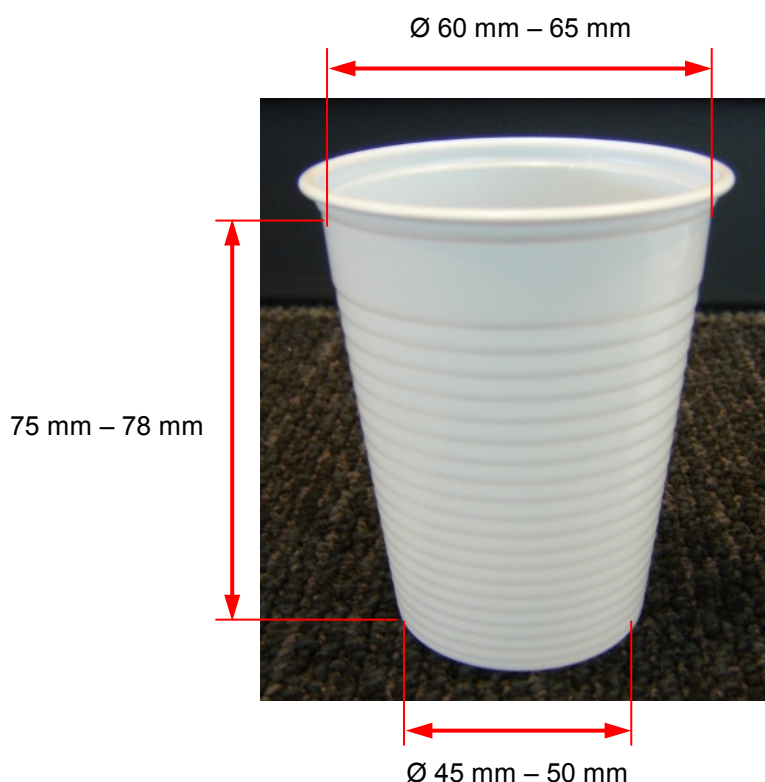


Figure ZA.1 — Regular cup 

☐ Espresso cups shall be as in Figure ZA.2.

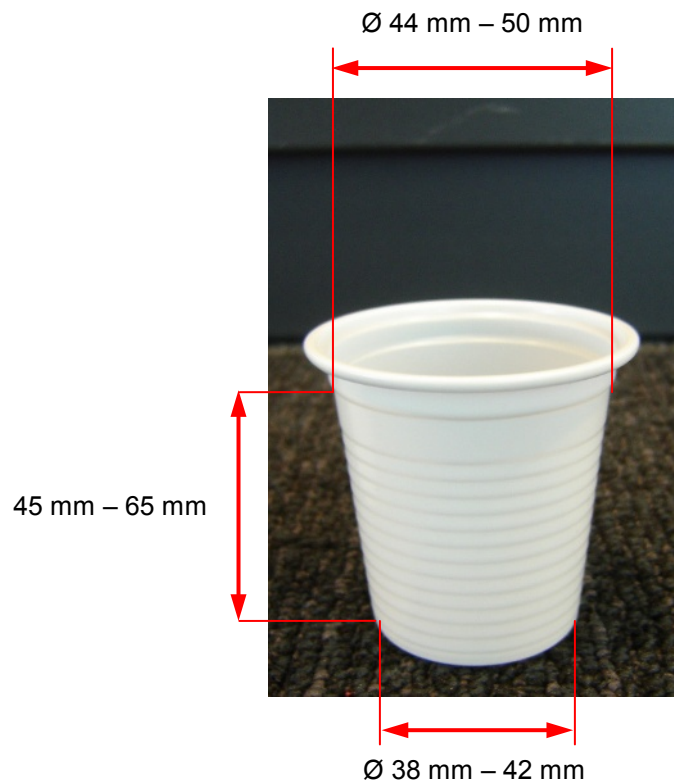


Figure ZA.2 — Espresso cup

NOTE Width on top measured just below collar, on bottom just above radius, height at same points.

ZA.3 Cup mass

Regular cup: 0,12 l, 2,5 g – 4,0 g,

Espresso cup: 0,04 l, 1,5 g – 2,5 g.

ZA.4 Cup material

Polystyrene >PS< ☐

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

METHODS FOR MEASURING THE PERFORMANCE OF ELECTRIC HOUSEHOLD COFFEE MAKERS

FOREWORD

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International Standard IEC 60661 has been prepared by subcommittee 59G: Small kitchen appliances, of IEC technical committee 59: Performance of household electrical appliances.

This consolidated version of IEC 60661 is based on the second edition (1999) [documents 59G/99/FDIS and 59G/105/RVD], its amendment 1 (2003) [documents 59G/128/FDIS and 59G/130/RVD] and its amendment 2 (2005) [documents 59L/21/FDIS and 59L/23/RVD].

It bears the edition number 2.2.

A vertical line in the margin shows where the base publication has been modified by amendments 1 and 2.

The committee has decided that the contents of the base publication and its amendments will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

Introduction

IEC 60661:2006-02 (consolidated edition of IEC 60661:1999 + A1:2003 + A2:2005) focuses mainly on filter coffee makers; capsule & pad makers are completely missing, and many clauses cannot be applied to them. Therefore, a complete reworking of the standard could solve that inadequate status; this will be done later. 

METHODS FOR MEASURING THE PERFORMANCE OF ELECTRIC HOUSEHOLD COFFEE MAKERS

1 Scope and object

This International standard applies to electric coffee makers for household and similar use. It does not apply to appliances designed exclusively for commercial or industrial use.

The object of this standard is to state and to define the main performance characteristics, which are of interest to the user and to describe the standard methods for measuring these characteristics.

This standard is concerned neither with safety nor performance requirements.

Taking into account the degree of accuracy and repeatability, due to variations in time and origin of test materials and ingredients and the influence of the subjective judgement of test operators, the described test methods may be applied more reliably for comparative testing of a number of appliances at approximately the same time, in the same laboratory, by the same operator and with the same utensils, rather than for testing single appliances in different laboratories.

NOTE 1 Similar use denotes use in premises other than household, for example offices, where the appliance is used in a similar way to normal household use.

NOTE 2 The measuring methods of this standard are specific to coffee makers with a view to the following types of coffee percolator, filter type coffee makers and espresso coffee makers [C] and capsule and pod/pad makers [C]; they may, however, be used for coffee makers having other systems, as far as this is reasonable.

2 Normative references

- [C] 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.

EN 50564:2011, *Electrical and electronic household and office equipment – Measurement of low power consumption (IEC 62301:2011, mod.)*

EN 60584-2, *Thermocouples – Part 2: Tolerances (IEC 60584-2)*

EN ISO 3696:1995, *Water for analytical laboratory use – Specification and test methods (ISO 3696:1987)*

ISO 3972:1991, *Sensory analysis – Methodology – Methods of investigating sensitivity of taste*

ISO 4121:1987, *Sensory analysis – Methodology – Evaluation of food products by methods using scales* [C]

¹⁾ To be published.

3 Definitions

For the purpose of this standard the following definitions apply:

3.1

coffee maker

appliance to prepare coffee

3.2

coffee percolator

coffee maker with a liquid container and a strainer or basket for holding ground coffee through which the heated water ascends in a rising pipe and falls passing through the ground coffee into the container in a continuous process

NOTE In some countries, this type of coffee maker is named "coffee brewer".

3.3

filter coffee maker

coffee maker with separate containers for water and for the coffee brewed and with a filter arranged above the coffee container. The heated water passes once through a filter containing ground coffee into a container

C 3.Z1

pressure coffee maker

coffee maker with water heated and forced through ground coffee and filter by steam pressure or mechanical pump

3.Z1.1

espresso coffee maker

coffee maker with heated water that is forced through ground coffee and filter by steam pressure, manual piston drive or mechanical pump, with a mechanical pump pressure equal to or higher than 10 bar

3.Z1.2

low pressure coffee maker

coffee maker with heated water that is forced through ground coffee and filter by steam pressure, manual piston drive or mechanical pump, with mechanical pump pressure lower than 10 bar

Note 1 to entry: Electrical "moka pot" coffee maker with water heated and forced through ground coffee and filter by steam pressure is a low pressure coffee maker. **C**

4 Grinding degrees

For the purpose of performance testing of coffee makers, the grinding degrees are defined as follows.

- a) COARSE more than 50 % of the grounds are larger than 0,71 mm;
- b) MEDIUM more than 50 % of the grounds are larger than 0,355 mm but smaller than 0,71 mm;
- c) FINE more than 50 % of the grounds are smaller than 0,355 mm.

Test sieves

Mesh size of sieve mm
0,71
0,355

NOTE The mesh sizes are based on ISO/DIS 3310-1.