SLOVENSKI STANDARD
SIST EN IEC 60311:2019

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Nadomešča:
SIST EN 60311:2003
SIST EN 60311:2003/A1:2006
SIST EN 60311:2003/A2:2010

Električni likalniki za gospodinjsko ali podobno uporabo - Metode za ugotavljanje lastnosti

Electric irons for household or similar use - Methods for measuring performance

Elektrische Bügeleisen für Haushalt und ähnliche Zwecke - Verfahren zur Messung der Gebrauchseigenschaften

Fers à repasser électriques pour usage domestique ou analogue - Méthodes de mesure de l'aptitude à la fonction

Ta slovenski standard je istoveten z: **EN IEC 60311:2019**

ICS:

97.060	Aparati za nego perila	Laundry appliances

SIST EN IEC 60311:2019 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60311

October 2019

ICS 97.060

Supersedes EN 60311:2003 and all of its amendments and corrigenda (if any)

English Version

Electric irons for household or similar use - Methods for measuring performance (IEC 60311:2016)

Fers à repasser électriques pour usage domestique ou analogue - Méthodes de mesure de l'aptitude à la fonction (IEC 60311:2016)

Elektrische Bügeleisen für Haushalt und ähnliche Zwecke - Verfahren zur Messung der Gebrauchseigenschaften (IEC 60311:2016)

This European Standard was approved by CENELEC on 2017-01-20. 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.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 60311:2019 E

European foreword

The text of document 59L/116/CDV, future edition 5 of IEC 60311, prepared by SC 59L "Small household 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 IEC 60311:2019.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-04-11
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2022-10-11

This document supersedes EN 60311:2003.

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.

Endorsement notice

The text of the International Standard IEC 60311:2016 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60454-3-2	NOTE	Harmonized as EN 60454-3-2
ISO 3758	NOTE	Harmonized as EN ISO 3758

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 Where 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 60051-1	-		EN 60051-1	-
IEC 60734	-	Household electrical appliances - Performance - Water for testing	EN 60734	-
ISO 105-F01	-	Textiles_- Tests for colour fastness_-- Part_F01: Specification for wool adjacent fabric		-
ISO 105-F02	-	Textiles_- Tests for colour fastness_-- Part_F02: Specification for cotton and viscose adjacent fabrics		-
ISO 105-F03	-	Textiles_- Tests for colour fastness_-- Part_F03: Specification for polyamide adjacent fabric		-
ISO 1518-1	-		EN ISO 1518-1	-
ISO 2409		Paints and varnishes - Cross-cut test	EN ISO 2409	2013
ISO 3801	-	Textiles; Woven fabrics; Determination of- mass per unit length and mass per unit area		-
ISO 6330			EN ISO 6330	2012
ISO 7211-2 (mod)	-	Textiles - Woven fabrics - Construction - Methods of analysis -- Part 2: Determination of number of threads per unit length	EN 1049-2	-
ISO 9073-2	-	Textiles -- Test methods for nonwovens -- Part 2: Determination of thickness	EN ISO 9073-2	-
ISO 13934-1	-	Textiles_- Tensile properties of fabrics_-- Part_1: Determination of maximum force and elongation at maximum force using the strip method		-

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Electric irons for household or similar use – Methods for measuring performance

Fers à repasser électriques pour usage domestique ou analogue – Méthodes de mesure de l'aptitude à la fonction

INTERNATIONAL ELECTROTECHNICAL COMMISSION

COMMISSION ELECTROTECHNIQUE INTERNATIONALE

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CONTENTS

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTRIC IRONS FOR HOUSEHOLD OR SIMILAR USE – METHODS FOR MEASURING PERFORMANCE

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60311 has been prepared by subcommittee 59L: Small household appliance, of IEC technical committee 59: Performance of household and similar electrical appliances.

This fifth edition cancels and replaces the fourth edition published in 2002, Amendment 1:2005 and Amendment 2:2009. This edition constitutes a technical revision.

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

a) 5.3: introduction of clarifications on voltage and frequency to be applied for the tests;
b) 5.12: introduction of an anti-circumvention subclause;
c) 9.2.3: clarification on the procedure for measuring steaming rate;
d) 14.1 and 14.2: clarification on type of water used for the tests;
e) Figure 2: clarifications and alignment with the relevant formula.

The text of this International Standard is based on the following documents:

CDV	Report on voting
59L/116/CDV	59L/121/RVC

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

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

In this standard, the following print types are used:

- *test specifications: in italic type*
- notes: in small roman type
- other texts: in roman type

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://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.

IMPORTANT – The "colour inside" logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this publication using a colour printer.

ELECTRIC IRONS FOR HOUSEHOLD OR SIMILAR USE – METHODS FOR MEASURING PERFORMANCE

1 Scope

This International Standard applies to electric irons for household or similar use.

The purpose of this document is to state and define the principal performance characteristics of electric irons for household or similar use which are of interest to the user and to describe the standard methods for measuring these characteristics.

Electric irons covered by this standard include

- dry irons;
- steam irons;
- vented steam irons with motor pump;
- spray irons;
- steam irons with separate water reservoir or boiler/generator having a capacity not exceeding 5 l.

This document is concerned neither with safety nor with performance requirements.

NOTE The primary characteristic to be taken into account in assessing the performance of an electric iron is its basic ability to produce a smooth finish to textile materials, without risk of scorching or other damage. It has not proved possible to devise a single method which will measure this characteristic in a consistently reproducible way and measurements have therefore been included to check certain factors, such as the temperature of the sole-plate at the mid-point, sole-plate temperature distribution, etc., which affect the basic characteristic. In evaluating the results, while a very exceptional result in any one of them may significantly affect performance, there is considerable latitude in the combination of results which will give satisfactory ironing performance, and too much significance is not given to minor differences in any one result.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60051-1, *Direct acting indicating analogue electrical measuring instruments and their accessories – Part 1: Definitions and general requirements common to all parts*

IEC 60734, *Household electrical applicances – Performance – Hard water for testing*

ISO 105–F01, *Textiles – Test for colour fastness – Specification for wool adjacent fabric*

ISO 105–F02, *Textiles – Test for colour fastness – Specification for cotton and viscose adjacent fabrics.*

ISO 105–F03, *Textiles – Test for colour fastness – Specification for polyamid adjacent fabric*

ISO 1518–1, *Paints and varnishes – Determination of scracth resistance – Part 1: constant-loading method*

ISO 2409:2013, *Paints and varnishes – Cross-cut test*

ISO 3801, *Textiles – Woven fabrics – Determination of mass per unit length and mass per unit area*

ISO 6330:2012, *Textiles – Domestic washing and drying procedures for textile testing*

ISO 7211-2, *Textiles – Woven fabrics – Construction – Methods of analysis – Part 2: Determination of number of threads per unit length*

ISO 9073-2, *Textiles – Test methods for nonwovens – Part 2: Determination of thickness*

ISO 13934-1, *Textiles – Tensile properties of fabrics – Part 1: Determination of maximum force and elongation at maximum force using the strip method*

3 Terms and definitions

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

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at http://www.electropedia.org/
- ISO Online browsing platform: available at http://www.iso.org/obp

3.1
electric iron
portable appliance, which has an electrically heated sole-plate and is used for ironing textile materials

Note 1 to entry: In this document, "electric iron" is referred to as "iron".

3.2
thermostatic iron
iron fitted with a thermostat, the setting of which can be adjusted manually to alter the sole-plate temperature over a range and maintain it within certain limits

3.3
electric iron with non-self-resetting thermal cut-out
iron fitted with a non-self-resetting thermal cut-out, such as a fusible link, for the purpose of disconnecting the heating element if the iron attains excessive temperature

3.4
dry iron
iron having neither the means to produce and supply steam nor to spray water onto textile materials while ironing

3.5
steam iron
iron having the means to produce and supply steam to textile materials while ironing

Note 1 to entry: It can be provided with a means to supply a shot of steam.

3.5.1
shot-of-steam iron
iron provided with the means to supply a shot of steam to textile materials while ironing

3.5.2
shot of steam
single emission of an increased volume of steam from the sole-plate for a short duration

3.5.3
vented steam iron
steam iron in which steam is produced when the water contacts the sole-plate, the water reservoir being at atmospheric pressure

Note 1 to entry: The water reservoir may be incorporated in the iron or connected by a hose to the iron.

3.5.4
pressurized steam iron
steam iron in which steam is produced in a boiler at a pressure exceeding 50 kPa

Note 1 to entry: The boiler may be incorporated in the iron or connected by a hose to the iron.

3.5.5
instantaneous steam iron
steam iron in which small quantities of water are pumped from the water reservoir and in which steam is produced when the water contacts the walls of the boiler/generator, the water reservoir being at atmospheric pressure

Note 1 to entry: The water reservoir and the boiler are connected to the iron by a tube.

3.5.6
vented steam iron with motor pump
vented steam iron in which the water is pumped from the internal water reservoir to the steam chamber by means of an (electric) motor pump

3.6
spray iron
iron provided with means to spray water onto textile materials while ironing

3.7
rated voltage

3.7.1
rated voltage
voltage assigned to the iron by the manufacturer

3.7.2
rated voltage range
range of voltage assigned to the iron by the manufacturer, expressed in terms of its lower and upper limits

3.8
rated input
input power of the iron under normal operating conditions assigned by the manufacturer

3.9
sole-plate
flat surface of the iron, which is heated electrically and pressed against textile materials while ironing

3.10
mid-point
point of the sole-plate in the geometrical centre of the centre-line of the sole-plate