



SLOVENSKI STANDARD
SIST EN 60350-2:2013/A11:2014
01-december-2014

Gospodinjiski električni kuhalni aparati - 2. del: Kuhalne plošče - Metode za merjenje funkcionalnosti - Dopolnilo A11

Household electric cooking appliances - Part 2: Hobs - Methods for measuring performance

Elektrische Kochgeräte für den Hausgebrauch - Teil 2: Kochmulden - Verfahren zur Messung der Gebrauchseigenschaften

Appareils de cuisson électrodomestiques - Partie 2: Tables de cuisson - Méthodes de mesure de l'aptitude à la fonction

ITIH STANDARD PREVIEW
(standards.iteh.ai)
<https://standards.iteh.ai/catalog/standards/sist/7f19e334-6606-4836-ba9a-dea508c7d934/sist-en-60350-2-2013-a11-2014>

Ta slovenski standard je istoveten z: EN 60350-2:2013/A11:2014

ICS:

97.040.20	Štedilniki, delovni pulti, pečice in podobni aparati	Cooking ranges, working tables, ovens and similar appliances
-----------	--	--

SIST EN 60350-2:2013/A11:2014 **en**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60350-2:2013/A11:2014](https://standards.iteh.ai/catalog/standards/sist/7f19e334-6606-4836-ba9a-dea508c7d934/sist-en-60350-2-2013-a11-2014)

<https://standards.iteh.ai/catalog/standards/sist/7f19e334-6606-4836-ba9a-dea508c7d934/sist-en-60350-2-2013-a11-2014>

EUROPEAN STANDARD

EN 60350-2:2013/A11

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2014

ICS 97.040.20

English Version

Household electric cooking appliances - Part 2: Hobs - Methods for measuring performance

Appareils de cuisson électrodomestiques - Partie 2: Tables de cuisson - Méthodes de mesure de l'aptitude à la fonction

Elektrische Kochgeräte für den Hausgebrauch - Teil 2: Kochfelder - Verfahren zur Messung der Gebrauchseigenschaften

This amendment A11 modifies the European Standard EN 60350-2:2013; it was approved by CENELEC on 2014-09-29. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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, 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

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

Foreword

This document (EN 60350-2:2013/A11:2014) has been prepared by 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 at national level by publication of an identical national standard or by endorsement (dop) 2015-09-29
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2017-09-29

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

The new amendment covers following issues:

- Description about determining the dimensions of **cooking areas**;
- Determine the energy consumption for a **cooking zone** and for a **cooking area** (see 7.1.Z7.2);
- Cancel 7.1.Z7.3 Measurement (uncertainty of results);
- Amending Annex ZA to give clear instructions about cookware set and position for **cooking areas** with more than 3 **controls**;
- Amending Annex ZE to give clear advice how to calculate the final energy consumption for a hob;
- Implementation of Annex ZZ which shows the coverage of Commission Regulation and Commission Delegated Regulation and which lists the relevant paragraphs of this standard.

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 Directive(s).

For the relationship with EU Directive(s) see informative Annex ZZ, which is an integral part of this document.

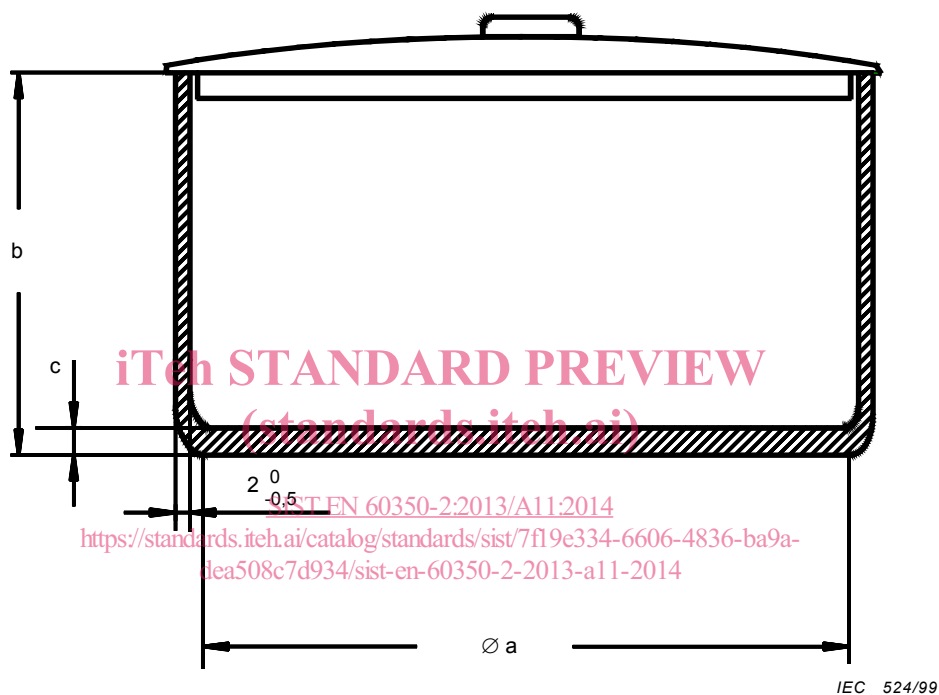
Add a new clause 6.2.Z3

6.2.Z3 Dimensions of cooking areas

For **cooking areas** marked to show the limits where more than one cookware can be used simultaneously the maximum length and maximum width of the marked surface is noted.

7.2.1 Temperature control

Add following Figure 4 after Note 2:



Specification of the saucepan

Diameter of cooking zone mm	Dimensions of the saucepan mm		
	<i>a</i>	<i>b</i>	<i>c</i>
≤ 145	145	140	3
>145 ≤ 180	180	140	≥ 3 ≤ 5
>180 ≤ 220	220	140	≥ 3 ≤ 5

The saucepan is made of low carbon steel having a maximum carbon content of 0,08 %. It is cylindrical without metallic handles or protrusions. The diameter of the flat area at the base of the saucepan is to be at least the diameter of the **cooking zone**. The maximum concavity of the base of the saucepan is to be not more than 0,006 *a*, where *a* is the diameter of the flat area at the base of the saucepan.

NOTE The lid is adapted to accommodate a stirrer.

The base of the saucepan shall not be convex.

Figure 4 – Saucepan

Delete 7.1.Z7.3 *Measurement uncertainty of results – Energy consumption for a hob.*

7.1.Z2 Cookware and water amount

Change the 3rd sentence and add an additional paragraph and a note after the 4th sentence:

The material of the cookware bottom is stainless steel 1,4016 according to EN 10088-2, the thickness is 6 mm ± 0,2 mm.

To guarantee a sufficient permeability of the cookware bottom the disc has to be annealed.

NOTE Grinding for adjusting after alteration is allowed within the given tolerances of 6 mm ± 0,2 mm.

The annealing should be done for app. 2 h at app. 650 °C in a nitriding-furnace.

Change Note 1 as following:

NOTE 1 An earthed wire of 2 mm² cross section and a maximum length of 2 m is welded to the metallic clamp.

7.1.Z7.2 Energy consumption for a hob

Add the following sentences at the end of clause 7.1.Z7.2

The energy consumption per **cooking zone** $EC_{\text{cooking zone}}$ is equal to $E_{\text{cw}} \cdot EC_{\text{cooking zone}}$ shall be noted with the cookware size under test normalized to 1000 g.

The energy consumption $EC_{\text{cooking zone}}$ determined according to 7.1.Z6 shall not be greater than the value declared by the manufacturer plus 10 %

The energy consumption per **cooking area** EC_{area} is the arithmetic mean of the energy consumption values of the pieces of cookware considered according to Table ZA.1 and Table ZA.2 on this type of **cooking area** normalized to 1000 g.

7.5.2 Test procedure

Change the cross reference in subclause 4:

To do this: bring up the amount of water according to Table Z.3 to the boiling point at maximum possible power level simultaneously on all **induction cooking zones** available on the **hob**.

Annex B
(informative)

Addresses for suppliers

B.Z1 Stainless steel for bottom material of cookware

Change the reference to the clause in bracket

(see 7.1.Z2)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60350-2:2013/A11:2014](https://standards.iteh.ai/catalog/standards/sist/7f19e334-6606-4836-ba9a-dea508c7d934/sist-en-60350-2-2013-a11-2014)

<https://standards.iteh.ai/catalog/standards/sist/7f19e334-6606-4836-ba9a-dea508c7d934/sist-en-60350-2-2013-a11-2014>

Annex ZA
(normative)
**Further requirements for measuring the energy consumption and heating up
time for cooking areas**

ZA.2.1 General

Change the second sentence as following:

If a **hob** is a combination from ZA.2.2 and ZA.2.3, then these areas will be tested separately.

Add an additional sentence at the end:

If a **hob** has more than one **cooking area** with limitative marking (see ZA.2.3), each **cooking area** is tested separately.

Add a further line in Table ZA.1 and change the line "5 controls" as stated:

Table ZA.1 – Criteria for cookware set – cooking areas without limitative marking

Number of controls	Selected cookware set
1 control	Cookware with 210 mm diameter
2 controls	Two cookware pieces with a diameter of 180 mm and 210 mm
3 controls	Three cookware pieces with a diameter of 150 mm, 180 mm and 210 mm
4 controls	Four cookware pieces with a diameter of 150 mm, 180 mm and 210 mm twice
5 controls	Five cookware pieces with a diameter of 150 mm, 180 mm, 210 mm twice and 240 mm
6 controls	Six cookware pieces with a diameter of 150 mm, 180 mm twice, 210 mm twice and 240 mm

Change the sentence after the note as following:

If a cookware is not detected, the next biggest cookware diameter is chosen independent from the cookware category (see Table Z.3).

ZA.2.3 Hob with cooking area with limitative marking

Change Table ZA.2 and the sentence after the note as following:

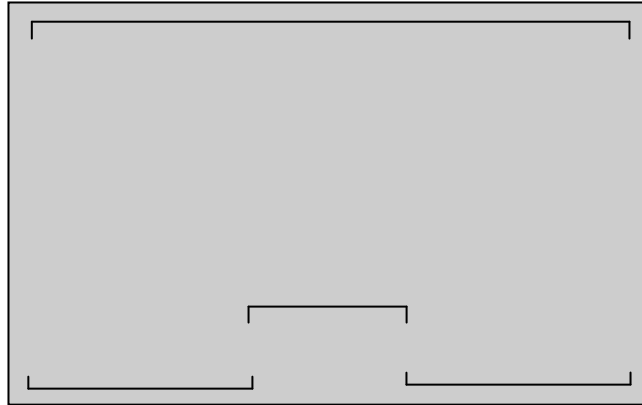
Table ZA.2 – Criteria for cookware set – Cooking areas with limitative marking

Number of controls	Selected cookware set
≤ 3 controls	Three cookware pieces with a diameter of 150 mm, 180 mm and 210 mm
> 3 controls	Five cookware pieces with a diameter of 150 mm 180 mm 210 mm twice and 240 mm

If a cookware is not detected, the next biggest cookware diameter is chosen independent from the cookware category (see Table Z.3).

Change Figure ZA.2 as following:

Example 1



Example 2



iTeh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 60350-2:2013/A11:2014
<https://standards.iteh.ai/catalog/standards/sist/7f19e334-6606-4836-ba9a-dea508c7d934/sist-en-60350-2-2013-a11-2014>

Figure ZA.2 - Example layouts for a hob with cooking area with limitative marking

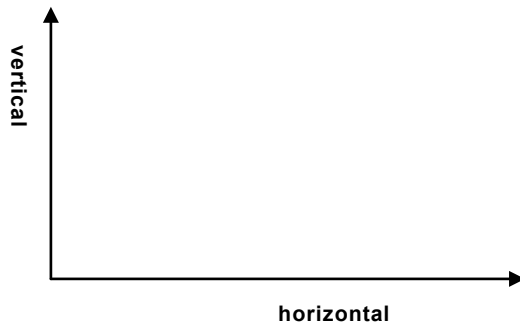
Change ZA.3.3 as following:

ZA.3.3 Positioning on a cooking area with limitative markings

ZA.3.3.1 with ≤ 3 controls

The largest piece of cookware is positioned in the centre of the **cooking area**. To find the centre the longest vertical and horizontal line within the marking is determined. Bisect the horizontal line and move the vertical line parallel to this half distance point.

NOTE The wording “horizontal” and “vertical” refer to the drawing layer.



Intersect the horizontal line (longest possible) at 25 %, 50 % and 75 %. 25 % determines the position marker ①, 50 % determines the position marker ② and 75 % determines position marker ③.

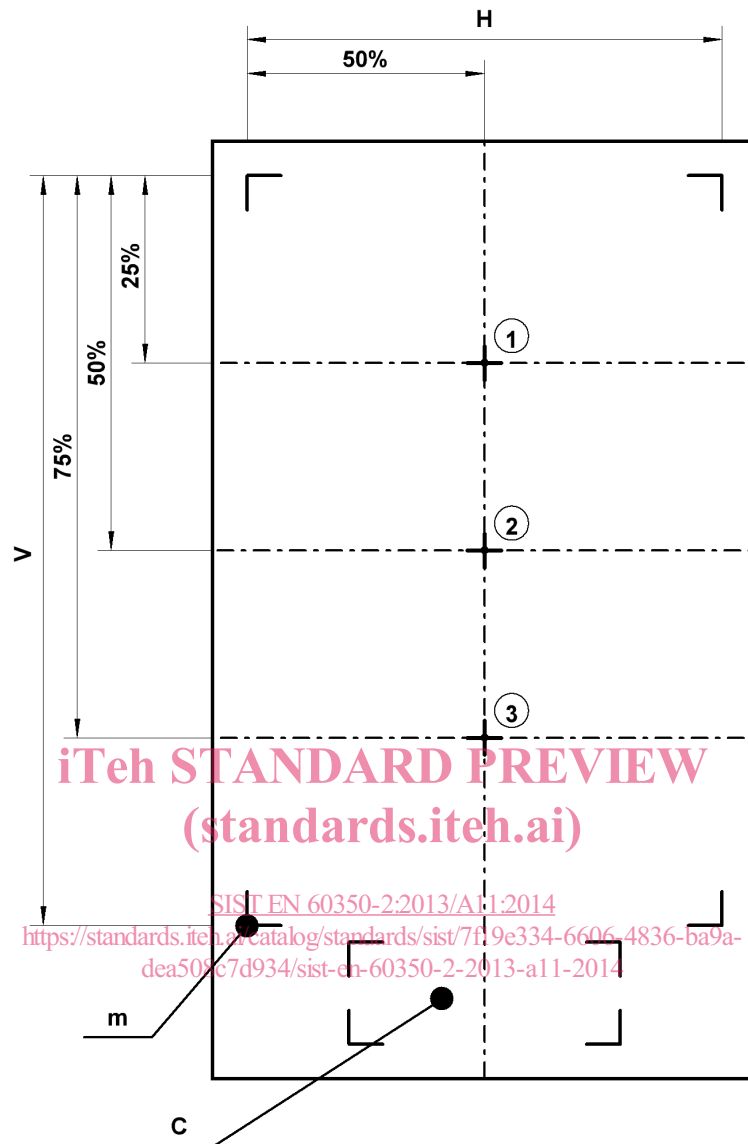
The position marker ② determines the center for the largest piece of cookware.

The smaller pieces of cookware are positioned centrally on the position marker ① and ③, (see Figure ZA.3).

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN 60350-2:2013/A11:2014](https://standards.iteh.ai/catalog/standards/sist/7f19e334-6606-4836-ba9a-dea508c7d934/sist-en-60350-2-2013-a11-2014)

<https://standards.iteh.ai/catalog/standards/sist/7f19e334-6606-4836-ba9a-dea508c7d934/sist-en-60350-2-2013-a11-2014>

**Key**

H: longest horizontal line of the marked cooking area

V: longest vertical line of the marked cooking area

c: area of the control

m: limitative marking of the cooking area

①, ③: position marker of the pieces of cookware with 150 mm diameter and 180 mm diameter

②: center position of cookware with 210 mm diameter

Figure ZA.3 - Example - position a cookware set for measuring the energy consumption for cooking areas with limitative markings ≤ 3 controls