



SLOVENSKI STANDARD

SIST EN 50615:2015

01-maj-2015

Preskusi na napravah za preprečevanje in gašenje požarov na kuhalnih ploščah

Tests on devices for fire prevention and suppression for hobs (cooktops)

Essais sur les dispositifs de prévention et d'extinction du feu pour les plaques de cuisson (tables de cuisson)

(standards.iteh.ai)

Ta slovenski standard je istoveten z: **EN 50615:2015**

<https://standards.iteh.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-1768c921b128/sist-en-50615-2015>

ICS:

13.220.10	Gašenje požara	Fire-fighting
97.040.20	Štedilniki, delovni pultji, pečice in podobni aparati	Cooking ranges, working tables, ovens and similar appliances

SIST EN 50615:2015

en,fr

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 50615:2015](#)

<https://standards.iteh.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-1768c921b128/sist-en-50615-2015>

EUROPEAN STANDARD

EN 50615

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2015

ICS 97.040.20

English Version

Household and similar electrical appliances - Safety - Particular requirements for devices for fire prevention and suppression for electric hobs (cooktops)

Essais sur les dispositifs de prévention et d'extinction du feu pour les plaques de cuisson (tables de cuisson)

Prüfungen für Vorrichtungen zur Feuervermeidung und Feuerlöschung auf Kochmulden

This European Standard was approved by CENELEC on 2015-01-05. 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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

[SIST EN 50615:2015](https://standards.iteh.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-1768c921b128/sist-en-50615-2015)

<https://standards.iteh.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-1768c921b128/sist-en-50615-2015>



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

Contents

Foreword	4
Introduction.....	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions	6
4 General requirement	7
5 General conditions for the tests	7
6 Classification	7
7 Marking and instructions	7
8 Protection against access to live parts.....	8
9 Starting of motor-operated appliances	8
10 Power input and current	8
11 Heating.....	8
12 Void	14
13 Leakage current and electric strength at operating temperature.....	14
14 Transient overvoltages	14
15 Moisture resistance	15
16 Leakage current and electric strength	15
17 Overload protection of transformers and associated circuits.....	15
18 Endurance	15
19 Abnormal operation.....	15
20 Stability and mechanical hazards	15
21 Mechanical strength	15
22 Construction	15
23 Internal wiring	17
24 Components	17
25 Supply connection and external flexible cords.....	17
26 Terminals for external conductors	17

ITeH STANDARD PREVIEW

(standards.iteh.ai)

SIST EN 50615:2015

<https://standards.iteh.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-1768c921b128/sist-en-50615-2015>

27	Provision for earthing	17
28	Screws and connections	17
29	Clearances, creepage distances and solid insulation	17
30	Resistance to heat and fire	17
31	Resistance to rusting	18
32	Radiation, toxicity and similar hazards	18

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 50615:2015](https://standards.iteh.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-1768c921b128/sist-en-50615-2015)

<https://standards.iteh.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-1768c921b128/sist-en-50615-2015>

Foreword

This document (EN 50615:2015) has been prepared by CLC/TC 61 "Safety 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) 2016-01-05
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2018-01-05

This document is intended to be used in conjunction with EN 60335-1:2012 and its amendments.

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.

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

iTeh STANDARD PREVIEW **(standards.iteh.ai)**

[SIST EN 50615:2015](https://standards.iteh.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-1768c921b128/sist-en-50615-2015)

<https://standards.iteh.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-1768c921b128/sist-en-50615-2015>

Introduction

This European Standard has been prepared to provide a means of conforming to essential safety requirements of the Low Voltage Directive 2006/95/EC. Other requirements and other EU Directives may be applicable to the devices within the scope of this standard.

This European Standard is a product family standard dealing with the safety of devices for fire prevention and suppression for hobs (cooktops).

This European Standard recognizes the level of protection against fire hazards of stationary cooking ranges, hobs and similar appliances.

A device for fire prevention and suppression for hobs (cooktops) that complies with the text of this standard will not necessarily be considered to comply with the safety principles of the standard if, when examined and tested, it is found to have other features that impair the level of safety covered by these requirements.

This European Standard takes into account the requirements of the HD 384 Series as far as possible so that there is compatibility with the wiring rules when the device is connected to the supply mains. However, national wiring rules may differ.

This European Standard applies in conjunction with EN 60335-1:2012 and its amendments, which is referred to in this text as "Part 1". This European Standard supplements or modifies the corresponding clauses of Part 1 as indicated in the text.

Although from evidences available the main cause of problems is fire, also production of dangerous amount of smoke or just smoke, that contains dangerous substances, was considered, but during the development of the standard it was not possible to develop a reproducible test for such detection. This subject is therefore under consideration.

1 Scope

The first sentence in the Scope of EN 60335-1 is replaced by:

This European standard deals with the safety of electric devices used for detection, prevention and suppression of fire originated:

- from a cooking process, or
- from flammable material left on the hob.

NOTE The provisions of this document, duly adapted to the specific installation and conditions of use, may be taken into consideration as guidance also for the protection from fire originated from the use of portable cooking appliances or from grills in the oven cavity.

The devices covered by this European Standard may operate by interaction with, or integration of, other devices such as smoke detectors, fire detectors, motion detectors, CO detectors and fire extinguishers that are covered by their specific applicable standards.

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.

EN 54-3:2001, *Fire detection and fire alarm systems — Part 3: Fire alarm devices — Sounders*

EN 60335-1:2012, *Household and similar electrical appliances — Safety — Part 1: General requirements (IEC 60335-1:2010, modified)*

EN 60335-2-6:2003, *Household and similar electrical appliances — Safety — Part 2-6: Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances (IEC 60335-2-6:2000, modified)*

EN 60335-2-31:2003, *Household and similar electrical appliances — Safety — Part 2-31: Particular requirements for range hoods and other cooking fume extractors (IEC 60335-2-31:2002)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 60335-1:2012, EN 60335-2-6:2003 and the following apply.

3.1.9 Replacement

The appliance is connected to the supply mains and operated as in normal use. Vessels, without lids, containing water are placed on each **hob element**. The diameter of the vessel is approximately equal to that of the **hob element**. **Hob elements** are operated to maintain simmering.

3.101 Categories of fire protection devices

3.101.1 Category A

Device for extinguishing and simultaneous power cut-off of the appliance.

3.101.2 Category B

Device for preventive power cut-off of the appliance.

3.101.3 Category AB

Device for preventive power cut-off of the appliance, followed by extinguishing, if flame occurs.

4 General requirement

This clause of Part 1 is applicable.

5 General conditions for the tests

This clause of Part 1 is applicable except as follows.

Addition:

The tests shall be carried out in a test room having a volume between 20 m³ and 30 m³.

For the tests of 11.104.1 and 11.104.2, devices that only depend on ambient temperature for their operation shall be tested at an ambient temperature of 40 °C.

Verification of the type of operation shall be done by examination of the technical documentation delivered by the manufacturer.

6 Classification

This clause of part 1 is applicable except as follows:

6.101 With reference to the type of intervention the devices shall be of one of the following categories: **Category A, Category B, Category AB**

Compliance is checked by inspection and by the relevant tests.

7 Marking and instructions

This clause of Part 1 is applicable except as follows.

7.1 *Addition:*

Devices shall be marked with the reference to their category.

7.12 *Addition:*

Instructions shall give information to the user with regard to the meaning/function of the marked category.

In case the device is suitable only for given types of cooking appliances or for hobs with a maximum width this shall be stated in the instructions.

Devices for fire prevention, detection and suppression will not detect all possible hazards due to different cooking habits.

Whenever relevant, the details on the interval for technical check and maintenance done by the manufacturer of the device or his authorized representatives shall be stated.

Specific instructions for user maintenance (e.g. cleaning of the detection device, periodical verification of functionality, etc.) shall be given.

For **Category B** devices: this device may not be suitable for fires originating from flammable materials left in proximity of the hob or on the hob

For **Category A** devices: this device is not suitable to control fires originating in an oven or in an oven grill.

7.12.1 *Addition:*

Instructions shall state the specific installation conditions and, if relevant, the limitations of use (e.g. in case when no range hood is foreseen in the installation or in case of cooking appliances not installed against the walls of the kitchen or the reference to the specific products for which the device is designed).

iTeh STANDARD PREVIEW

8 Protection against access to live parts

This clause of Part 1 is applicable.

[SIST EN 50615:2015](https://standards.itih.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-122222222222/50615-2015)

[https://standards.itih.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-](https://standards.itih.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-122222222222/50615-2015)

9 Starting of motor-operated appliances

This clause of Part 1 is not applicable.

10 Power input and current

This clause of Part 1 is applicable.

11 Heating

This clause of Part 1 is applicable except as follows.

11.1 *Addition*

Compliance is checked with the tests in 11.104.

11.2 *Addition:*

The devices shall be installed according to the instructions given by the manufacturer.

If the instruction manual provides multiple ways or positions for installation of the device(s) the device(s) shall be installed in the most unfavourable position.

Based on the specific instructions given by the manufacturer, a hob having six hob elements as defined in EN 60335-2-31:2003, 11.2, is installed in a base cabinet having the following dimensions:

Width: $119,8 \pm 2$ cm, Depth: $60,0 \pm 2$ cm, Height: $86,0 \pm 2$ cm. One cabinet with dimensions Width: $59,8 \pm 2$ cm, Depth: $60,0 \pm 2$ cm, Height: $86,0 \pm 2$ cm is installed on both sides of the base cabinet supporting the hob.

In case the manufacturer limits the use of the device to a hob having four elements, the hob as defined in EN 60335-2-31:2003, 11.2, is installed in a base cabinet having the following dimensions Width: $59,8 \pm 2$ cm, Depth: $60,0 \pm 2$ cm, Height: $86,0 \pm 2$ cm

If the instructions for use foresee the use of a range hood, a cabinet with dimensions Width: $59,8 \pm 2$ cm, Depth: $37,0 \pm 2$ cm, Height: $70,0 \pm 2$ cm is installed on both sides of the range hood.

If the device is foreseen to be installed with hobs with less than 4 or more than 6 hob elements, the hob indicated by the manufacturer of the device shall be used, choosing the one giving the most unfavourable results.

The tests can also be performed with the suitable hobs specified in the instructions by the manufacturer choosing the one giving the most unfavourable results. If no specification is available in the instructions, then the hobs required by EN 60335-2-31 shall be used.

If devices of **Category A**, or **Category B** or **Category AB** are integrated in the range hood or in the hob, the range hood or the hob are subjected to the tests as delivered.

In case of devices foreseen to be integrated or mounted on a specific model of range hood, the range hood foreseen by the manufacturer of the device is installed in a cabinet having suitable dimensions.

The test shall be carried out with the range hood operating on both conditions: switched-off and switched on at maximum air flow.

[SIST EN 50615:2015](https://standards.iteh.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-1768c921b128/sist-en-50615-2015)

[https://standards.iteh.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-](https://standards.iteh.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-1768c921b128/sist-en-50615-2015)

[1768c921b128/sist-en-50615-2015](https://standards.iteh.ai/catalog/standards/sist/68f648fe-49cb-4964-9522-1768c921b128/sist-en-50615-2015)

The bottom level of the cabinets shall be at 55 ± 2 cm from the top of the base cabinet supporting the hob.

A typical installation for a 4 hob elements is given in Figure 101



Figure 101

Addition

During this test there shall be no activation of the alarm.

Add the following new sub clauses: