

# SLOVENSKI STANDARD SIST EN 30-1-2:2023

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# Plinski kuhalni aparati za gospodinjstvo - 1-2. del: Varnost - Aparati z ventilatorskimi pečicami

Domestic cooking appliances burning gas - Part 1-2: Safety - Appliances having forcedconvection ovens

Haushalt-Kochgeräte für gasförmige Brennstoffe - Teil 1-2: Sicherheit - Geräte mit Umluft-Backöfen

<u>SIST EN 30-1-2:2023</u>

Appareils de cuisson domestiques utilisant les combustibles gazeux - Sécurité - Partie 1-2 : Appareils comportant des fours à convection forcée

Ta slovenski standard je istoveten z: EN 30-1-2:2023

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Cooking ranges, working tables, ovens and similar appliances

SIST EN 30-1-2:2023

en,fr,de



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#### SIST EN 30-1-2:2023

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

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**English Version** 

# Domestic cooking appliances burning gas - Part 1-2: Safety - Appliances having forced-convection ovens

Appareils de cuisson domestiques utilisant les combustibles gazeux - Sécurité - Partie 1-2 : Appareils comportant des fours à convection forcée Haushalt-Kochgeräte für gasförmige Brennstoffe - Teil 1-2: Sicherheit - Geräte mit Umluft-Backöfen und/oder Strahlungsgrilleinrichtungen

This European Standard was approved by CEN on 10 March 2023.

CEN 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 CEN 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 CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.

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EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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

### SIST EN 30-1-2:2023

## EN 30-1-2:2023 (E)

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## **European foreword**

This document (EN 30-1-2:2023) has been prepared by Technical Committee CEN/TC 49 "Gas cooking appliances", the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2023 and conflicting national standards shall be withdrawn at the latest by April 2026.

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

This document supersedes EN 30-1-2:2012.

The main change since the last edition is as follows (minor changes are not listed):

— adaptation to EN 30-1-1:2021 and to its editorial contents.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association and supports essential requirements of EU Directive(s)/Regulation(s).

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

This document is intended to be used together with EN 30-1-1:2021 on which the requirements and methods of test for appliances having forced-convection ovens and/or grills are based. In particular, this standard identifies the requirements and methods of test specific to these appliances, which are in addition to, or replace, those given in EN 30-1-1:2021.

Where a particular subclause of EN 30-1-1:2021 is not mentioned in this part 1-2, the subclause of EN 30-1-1:2021 applies as far as is reasonable. Where this document states "addition", "modification" or "replacement", the relevant text of EN 30-1-1:2021 shall be adapted accordingly.

This part is also intended to be used together with any other part of EN 30 series related to "Safety", whenever the appliances covered by this other part include a forced convection oven and/or grill.

Other European Standards covering domestic cooking appliances burning gas are as follows:

- EN 30-1-1, Domestic cooking appliances burning gas Part 1-1: Safety General;
- EN 30-1-3, Domestic cooking appliances burning gas Part 1-3: Safety Appliances having a glass ceramic hob;
- EN 30-1-4, Domestic cooking appliances burning gas Part 1-4: Safety Appliances having one or more burners with an automatic burner control system;
- EN 30-2-1, Domestic cooking appliances burning gas Part 2-1: Rational use of energy General;

— EN 30-2-2, Domestic cooking appliances burning gas — Part 2-2: Rational use of energy — Appliances having forced-convection ovens and /or grills.

Requirements concerning the emission of NOx are not mentioned in this European Standard, taking account of the usage of the appliances and their low output, their contribution to environment pollution is negligible.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

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### 1 Scope

This document specifies the constructional and operational characteristics, as well as the requirements and methods of test for safety and marking, for domestic cooking appliances having forced-convection ovens and /or grills using combustible gases, given in EN 437:2021.

This document includes requirements covering the electrical safety of equipment incorporated in the appliance that are associated with the use of gas. It does not include requirements covering the electric safety of electrically-heated components or their associated equipment<sup>1</sup>.

This document does not apply to:

- outdoor appliances;
- appliances connected to a combustion products evacuation duct;
- appliances having a pyrolytic gas oven;
- appliances having covered burners which do not comply with the constructional requirements of EN 30-1-1:2021, 5.2.8.2.2;
- appliances incorporating flame supervision devices and having an automatic ignition device for which the duration of the ignition attempt is limited by design;
- appliances equipped with a burner that is periodically ignited and extinguished under the control of an automatic on/off device;
- appliances equipped with a burner having a fan for the supply of combustion air or for the evacuation of the products of combustion;
- appliances supplied at pressures greater than those defined in EN 30-1-1:2021, 7.1.2;
- appliances equipped with an oven and/or with a grill having a fan either for the supply of combustion air or for the evacuation of the products of combustion;
- appliances equipped with a compartment in which a burner and an electric heating element can function simultaneously;
- appliances having one or more burners that are capable of remote operation (type 1 or type 2), unless the burner(s) concerned are thermostatically controlled oven burners of time-controlled ovens that are designed for a delayed start without the user being present.

This document does not cover the requirements relating to third family gas cylinders, their regulators and their connection.

<sup>&</sup>lt;sup>1</sup> Refer to the electrical safety rules.

## 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.

EN 437:2021, Test gases - Test pressures - Appliance categories

EN 30-1-1: 2021, Domestic cooking appliances burning gas — Part 1-1: Safety — General

EN 60335-2-6:2015<sup>2</sup>, Household and similar electrical appliances — Safety — Part 2-6: Particular requirements for stationary cooking ranges, hobs, ovens and similar appliances (IEC 60335-2-6:2014)

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 30-1-1:2021 and the following apply.

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

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

#### 3.101

#### conventional oven

closed compartment for cooking roasts, pastries, etc., in which the transmission of heat is carried out by natural convection <u>SISTEN 30-1-2:2023</u>

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#### conventional grill

appliance or part of an appliance that allows cooking by radiant heat from a surface which is raised to a high temperature and for which a fan is not used for the transmission of heat

#### 3.103

3.102

#### forced-convection oven or grill

oven or grill equipped with a fan intended to assist the transmission of heat by creating a forced circulation of air or products of combustion; this fan is not intended to supply combustion air

#### 3.104

#### dual purpose oven or grill

forced-convection oven or grill capable of being used as a conventional oven or grill

#### 3.105

#### normal conditions of convection

conditions of convection that correspond to the operation of a forced-convection oven or grill that can be used with or without the fan in operation in accordance with the instruction for use and maintenance

 $<sup>^2</sup>$  As impacted by EN 60335-2-6:2015/A1:2020 and EN 60335-2-6:2015/A11:2020.

#### 3.106

#### abnormal conditions of convection

abnormal conditions that relate to operating conditions of the appliance, if this is possible, in which the burner or burners that are not intended to function without the convection fan are capable of being put into operation when the convection fan has failed

### 4 Classification

The classification of EN 30-1-1:2021, Clause 4 shall apply.

## 5 Constructional requirements

#### 5.1 General

The appliance shall comply with the requirements of EN 30-1-1:2021, Clause 5, any verifications in the form of tests being carried out in accordance with Clause 7 of this document rather than the corresponding clauses of EN 30-1-1:2021.

The appliance shall also satisfy the following requirements.

# 5.2 Special requirements eh STANDARD PREVIEW

EN 30-1-1:2021, 5.2 shall apply.

#### 5.3 Convection fan

Moving parts of the fan of forced-convection ovens and grills shall be arranged or protected in such a way that in normal use appropriate protection of persons against accidents is assured.

The removal of any parts allowing access to moving parts of the fan shall not be possible without tools unless the procedure employed to reach these moving parts causes the fan to stop automatically, for example by shutting off the electrical supply, or by mechanical locking of the rotor.

Under the conditions of EN 60335-2-6:2015, 20.2, after application of a force on the parts preventing access to moving parts of the fan, any deformations or alterations of position caused shall not allow the moving parts of the fan to be touched with the test finger.

## **6** Operational requirements

#### 6.1 General

Unless specifically modified hereafter, the appliance shall comply with the requirements of EN 30-1-1:2021, Clause 6 when it is operating under the normal conditions of convection, any verifications in the form of tests being carried out in accordance with Clause 7 of this document rather than those of the corresponding clauses of EN 30-1-1:2021.

The appliance shall also satisfy the additional requirements in 6.4.

### 6.1.2.1 Obtaining the nominal heat input

EN 30-1-1:2021, 6.1.2.1 applies with the addition of the following:

For dual purpose ovens or grills, it is possible to declare:

— either a single nominal heat input, common to both modes of operation with or without fan;

— or two nominal heat inputs, corresponding to each mode of operation with or without fan.

#### 6.1.9 Blocking of the cooling fan and failure of the thermostat

For forced-convection ovens or grills, the requirements of EN 30-1-1:2021, 6.1.9 apply under the normal conditions of convection.

#### 6.2 Special requirements for hobs

EN 30-1-1:2021, 6.2 shall apply.

#### 6.3 Special requirements for ovens and grills

EN 30-1-1:2021, 6.3 shall apply, with the following modification:

The second paragraphs of EN 30-1-1:2021, 6.3.1.1 and 6.3.1.2 are replaced by the following text:

After ignition under these conditions and under the normal conditions of convection, the flames shall be stable and quiet. A slight tendency to flame lift is permitted on ignition but the flames shall be stable 120 s after ignition.

#### <u>SIST EN 30-1-2:2023</u>

#### 6.4 Additional requirements for appliances having forced-convection ovens and/or grills

#### 6.4.1 Abnormal conditions of convection

#### 6.4.1.1 Ignition, cross-lighting, flame stability

If the design of the appliance is such that ignition of a forced-convection oven or grill is possible under abnormal conditions of convection, the oven or grill is lit in still air under the conditions of test in 7.3.4.1.2. It shall be verified that ignition and cross lighting are carried out smoothly within 5 s, starting from the moment when the control handle is in the full-on position or in the ignition position, if this exists.

After ignition under these abnormal conditions of convection, the flames shall be stable and quiet. A slight tendency to flame lift is permitted on ignition but the flames shall be stable 120 s after ignition.

### 6.4.1.2 Combustion

For forced-convection ovens and/or grills that are not intended to be used without the fan and which are not equipped with a device interrupting the gas supply in the event of fan failure, it shall be verified under the conditions of 7.3.4.1.3 that the volume concentration of CO in the dry, air-free products of combustion does not exceed 0,20 % after 15 min before operation at the full-on rate.