

### SLOVENSKI STANDARD SIST EN 30-2-2:1999

01-december-1999

Plinski kuhalni aparati za gospodinjstvo – 2-2. del: Smotrna raba energije – Aparati z ventilatorskimi pečicami in/ali žari

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

Haushalt-Kochgeräte für gasförmige Brennstoffe - Teil 2-2: Rationelle Energienutzung - Geräte mit Umluft-Backöfen und/oder Strahlungsgrilleinrichtungen

Appareils de cuisson domestiques utilisant les combustibles gazeux - Partie 2-2:
Utilisation rationnelle de l'énergie - Appareils comportant des fours et/ou des grilloirs a convection forcée

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Ta slovenski standard je istoveten z: EN 30-2-2:1999

ICS:

97.040.20 Štedilniki, delovni pulti,

pečice in podobni aparati

Cooking ranges, working tables, ovens and similar

appliances

SIST EN 30-2-2:1999

en

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### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 30-2-2

July 1999

ICS 97.040.20

#### **English version**

# Domestic cooking appliances burning gas - Part 2-2: Rational use of energy - Appliances having forced-convection ovens and/or grills

Appareils de cuisson domestiques utilisant les combustibles gazeux - Partie 2-2: Utilisation rationnelle de l'énergie - Appareils comportant des fours et/ou des grilloirs à convection forcée

Haushalt-Kochgeräte für gasförmige Brennstoffe - Teil 2-2: Rationelle Energienutzung - Geräte mit Umluft-Backöfen und/oder -Strahlungsgrilleinrichtungen

This European Standard was approved by CEN on 15 April 1999.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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Page 2 EN 30-2-2:1999

#### **Contents**

1	rdScope	
2	Normative references	4
3	Definitions	4
4	Performance requirements	4
4.1	Efficiency	
4.2	Maintenance consumption of the oven	4
5	Test methods	(
5.1	General	<u>.</u>
5.2	Efficiency	5
5.3	Maintenance consumption of the oven	

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SIST EN 30-2-2:1999 https://standards.iteh.ai/catalog/standards/sist/0bf33f60-ffdf-43ff-ba75-4fc9ff2fa5ec/sist-en-30-2-2-1999

Page 3 EN 30-2-2:1999

#### **Foreword**

This European Standard 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 January 2000, and conflicting national standards shall be withdrawn at the latest by January 2000.

This part of the European Standard EN 30 refers to the relevant clauses of EN 30-1-2:1999 and EN 30-2-1:1998, modifying or supplementing them. Consequentely, this part is only intended to stand with the two above mentioned parts.

The present part is also intended to be used together with any other part of the standard EN 30-2-x related to "Rational Use of Energy", whenever the appliances covered by this other part include a forced-convection oven and/or grill.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

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

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom, REVIEW

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#### 1 Scope

This standard sets out the requirements and test method for the rational use of energy of gas cooking appliances having forced-convection ovens and/or grills using combustible gases described in clause 1 of EN 30-1-2:1999.

This standard covers only type testing.

NOTE: The calorific values given in this standard are based on the gross calorific value ( $H_S$ ) as defined in EN 30-1-2:1999.

#### 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 30-1-1:1998 Domestic cooking appliances burning gas fuel - Part 1-1: Safety -

General

EN 30-1-1:1998/A1:1999 Domestic cooking appliances burning gas - Part 1-1: Safety - General

EN 30-1-2:1999 Domestic cooking appliances burning gas - Part 1-2: Safety - Appliances

(standards.iteh.ai)

having forced-convection ovens and/or grills

EN 30-2-1:1998 Domestic cooking appliances burning gas - Part 2-1: Rational use of

energy - General

3 Definitions

For the purpose of this standard, the definitions given in clause 3 of EN 30-1-2:1999 and in EN 30-2-1:1998 are applicable: dards itch avcatalog standards/sist/0bf33f60-ffdf-43ff-ba75-4fc9ff2fa5ec/sist-en-30-2-2-1999

#### 4 Performance requirements

#### 4.1 Efficiency

4.1 of EN 30-2-1:1998 applies.

#### 4.2 Maintenance consumption of the oven

If an appliance has a conventional oven, 4.2 of EN 30-2-1:1998 applies for this oven.

For dual purpose ovens, the requirements of 4.2 of EN 30-2-1:1998 apply when the fan is not in operation.

When a forced convention oven operates with the convection fan in operation, particular requirements hereafter apply.

Under the test conditions specified in 5.3 of this standard, the maintenance consumption of the oven shall not exceed the value obtained using the formula:

$$C_{\rm e} = 0.93 + 0.035 \ \nu$$

where:

 $\nu$  is the useful volume of the oven, expressed in cubic decimetres, defined in 3.4.3.12 of EN 30-1-1:1998.

#### 5 Test methods

#### 5.1 General

#### 5.1.1 Burner supply

5.1.1 of EN 30-2-1:1998 applies with the following additions.

For forced convection ovens, the burner is supplied according to the appliance category with one of the reference gases indicated in 7.1.1.1 of EN 30-1-2:1999, or the actual gas distributed complying with the requirements of 7.1.1.2 of EN 30-1-2:1999.

The burner is adjusted, within  $\pm$  2 % of its nominal heat input in accordance with 7.1.3 of EN 30-1-2:1999.

#### 5.1.2 Test conditions

5.1.2 of EN 30-2-1:1998 applies.

#### 5.1.3 Test pans

5.1.3 of EN 30-2-1:1998 applies.

## iTeh STANDARD PREVIEW

#### 5.2 Efficiency

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5.2 of EN 30-2-1:1998 applies.

SIST EN 30-2-2:1999

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#### 5.3 Maintenance consumption of the oven

5.3 of EN 30-2-1:1998 applies with the following additions.

When a forced convection oven operates with the convection fan in operation, the test conditions are as follows:

With the oven empty, the burner control device is adjusted so that, under steady state conditions, the mean temperature rise measured at the geometric centre of the oven as defined in 3.4.3.9 of EN 30-1-1:1998 using a bare thermocouple is 155 K or the maximum attainable if it is not possible to achieve a temperature rise of 155 K.

The corresponding gas consumption is measured and it is verified that the requirements of 4.2 of this standard are met.

Page 6 EN 30-2-2:1999

#### **Annex ZA (Informative)**

## Clauses of this European Standard addressing essential requirements or other provisions of EU Directives

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association and supports essential requirements of the EU Directive 90/396/EEC on the approximation of the Laws of Member States concerning gas appliances.

### WARNING: Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

The following clauses of this standard are likely to support requirements of EU Directive 90/396/EEC on the approximation of the Laws of Member States concerning gas appliances.

Compliance with clauses of this standard is one of the means of conforming with the specific essential requirements of the Directive concerned and associated EFTA regulations.

#### Table ZA.1

Essential requirement	iTeSubject AND A Requirements of the standard	Comments
3.5	Rational use of energy a rds.iteh.a.	
	3	
	SIST EN 30-2-2:1999 4 https://standards.iteh.ai/catalog/standards/sist/0bf33f65-ffdf-43ff-ba75-	
	4fc9ff2fa5ec/sist-en-30-2-2-1999	