

Domestic cooking appliances burning gas —

Part 2-2: Rational use of energy — Appliances having forced-convection ovens and/or grills

The European Standard EN 30-2-2:1999 has the status of a
British Standard

ICS 97.040.20

National foreword

This British Standard is the English language version of EN 30-2-2:1999. It partially supersedes both BS 5386-3, which was identical to EN 30 prior to the publication of Amendment No. 2 to the British Standard and BS 5386-4. It is recognized that BS 5386-3 and -4 may have been used as the basis for CE marking until quite recently and are being declared obsolescent in order that they are available for reference only. EN 30-2-2 should be considered as the current British Standard for the particular aspects it covers. BS 5386-3 and -4 will be withdrawn before 31 December 2002.

The UK participation in its preparation was entrusted to Technical Committee GSE/35, Gas cooking appliances (domestic), which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this committee can be obtained on request to its secretary.

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the BSI Standards Catalogue under the section entitled "International Standards Correspondence Index", or by using the "Find" facility of the BSI Standards Electronic Catalogue.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 6, an inside back cover and a back cover.

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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

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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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. Consequently, 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.

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_g) 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 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.

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 convection 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:

$$C_e = 0,93 + 0,035 v$$

where:

v 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 ± 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.

5.2 Efficiency

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

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.

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	Subject	Requirements of the standard	Comments
3.5	Rational use of energy	1 2 3 4 5	

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