BS EN 60335-2-42:2003+A12:2024
Incorporating corrigendum September 2007

BSI Standards Publication

Household and similar electrical appliances — Safety

Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens

bsi.

AVA Documents
Document Sharing Hub

Full document details: BS EN 60335-2-42:2003+A12:2024

National foreword

This British Standard is the UK implementation of EN 60335-2-42:2003+A12:2024, incorporating corrigendum September 2007. It is derived from IEC 60335-2-42:2002, incorporating amendment 1:2008 and amendment 2:2017. It supersedes BS EN 60335-2-42:2003+A11:2012, which will be withdrawn on 15 November 2027.

The start and finish of text introduced or altered by amendment is indicated in the text by tags. Tags indicating changes to IEC text carry the number of the IEC amendment. For example, text altered by IEC amendment 1 is indicated by ⟦A1⟩ ⟨A1⟧.

Where a common modification has been introduced by amendment, the tags carry the number of the amendment. For example, the common modifications introduced by CENELEC amendment A11:2012 are indicated by ⟦C11⟩ ⟨C11⟧.

The UK participation in its preparation was entrusted to Technical Committee CPL/61, Safety of household and similar electrical appliances.

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

Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

This publication has been prepared under a mandate given to the European Standards Organizations by the European Commission and the European Free Trade Association. It is intended to support requirements of the EU legislation detailed in the European Foreword. A European Annex, usually Annex ZA or ZZ, describes how this publication relates to that EU legislation.

For the Great Britain market (England, Scotland and Wales), if UK Government has designated this publication for conformity with UKCA marking (or similar) legislation, it may contain an additional National Annex. Where such a National Annex exists, it shows the correlation between this publication and the relevant UK legislation. If there is no National Annex of this kind, the relevant Annex ZA or ZZ in the body of the European text will indicate the relationship to UK regulation applicable in Great Britain. References to EU legislation may need to be read in accordance with the UK designation and the applicable UK law. Further information on designated standards can be found at www.bsigroup.com/standardsandregulation.

AVA Documents
Document Sharing Hub

Full document details: BS EN 60335-2-42:2003+A12:2024

For the Northern Ireland market, UK law will continue to implement relevant EU law subject to periodic confirmation. Therefore Annex ZA/ZZ in the European text, and references to EU legislation, are still valid for this market.

UK Government is responsible for legislation. For information on legislation and policies relating to that legislation, consult the relevant pages of www.gov.uk.

© The British Standards Institution 2025
Published by BSI Standards Limited 2025

ISBN 978 0 580 94312 6

ICS 25.040.40; 35.100.05; 97.040.20; 97.040.50

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 16 June 2003.

Amendments/corrigenda issued since publication

Date	Text affected
31 January 2008	Incorporating corrigendum September 2007: Last paragraph of EN foreword replaced. Addition to Annex ZB deleted
30 June 2009	Implementation of IEC amendment 1:2008 with CENELEC endorsement A1:2008
31 May 2012	Implementation of CENELEC amendment A11:2012
31 July 2025	Implementation of IEC amendment 2:2017 with CENELEC endorsement A2:2024
31 July 2025	Implementation of CENELEC amendment A12:2024

Documents
Document Sharing Hub

Full document details: BS EN 60335-2-42:2003+A12:2024

Documents
Document Sharing Hub

Full document details: BS EN 60335-2-42:2003+A12:2024

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60335-2-42:2003+A12

November 2024

ICS 97.040.20

Incorporating corrigendum September 2007

English version

Household and similar electrical appliances - Safety
Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens
(IEC 60335-2-42:2002)

Appareils électrodomestiques et analogues - Sécurité
Partie 2-42: Règles particulières pour les fours électriques à convection forcée, les cuiseurs à vapeur électriques et les fours combinés vapeur-convection électriques à usage collectif
(CEI 60335-2-42:2002)

Sicherheit elektrischer Geräte für den Hausgebrauch und ähnliche Zwecke
Teil 2-42: Besondere Anforderungen für elektrische Heißumluftöfen, Dampfgeräte und Heißluftdämpfer für den gewerblichen Gebrauch
(IEC 60335-2-42:2002)

This European Standard was approved by CENELEC on 2003-02-01. 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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

© 2003 CENELEC - All rights of exploitation in any form and by any means reserved worldwide for CENELEC members.

Ref. No. EN 60335-2-42:2003 E

AVA Documents
Document Sharing Hub

Full document details: BS EN 60335-2-42:2003+A12:2024

Foreword

The text of document 61E/402/FDIS, future fifth edition of IEC 60335-2-42, prepared by SC 61E of the IEC Technical Committee 61, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 60335-2-42 on 2003-02-01.

This European Standard replaces EN 60335-2-42:2000 + corrigendum July 2001.

The following dates are applicable:

- latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2003-11-01

- date on which national standards conflicting with the EN have to be withdrawn (dow) 2006-02-01

This part 2 has to be used in conjunction with EN 60335-1, Household and similar electrical appliances – Safety – Part 1: General requirements. It was established on the basis of the 2002 edition of that standard. Amendments and revisions of Part 1 have also to be taken into account and the dates when such changes become applicable will be stated in the relevant amendment or revision of Part 1.

This part 2 supplements or modifies the corresponding clauses of EN 60335-1, so as to convert it into the European Standard: Safety requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens.

When a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. When this standard states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

NOTE 1 The following numbering system is used:

- subclauses, tables and figures that are numbered starting from 101 are additional to those in Part 1;
- unless notes are in a new subclause or involve notes in Part 1, they are numbered starting from 101, including those in a replaced clause or subclause;
- additional annexes are lettered AA, BB, etc.;
- subclauses, notes and annexes that are additional to those in the IEC standard are prefixed with the letter Z.

NOTE 2 The following print types are used:

- requirements: in roman type;
- *test specifications: in italic type*;
- notes: in small roman type.

Words in **bold** in the text are defined in Clause 3. When a definition concerns an adjective, the adjective and the associated noun are also in bold.

There are no special national conditions causing a deviation from this European Standard, other than those listed in Annex ZA to EN 60335-1.

There are no national deviations from this European Standard, other than those listed in Annex ZB to EN 60335-1.

———————

Documents
Document Sharing Hub

Full document details: BS EN 60335-2-42:2003+A12:2024

Introduction

〈C11〉 The principle objectives of Low Voltage Directive, 2006/95/EC, are covered in this standard. The essential safety requirements of the Machinery Directive 2006/42/EC have also been taken into account for appliances covered by this part. 〈C11〉

Endorsement notice

The text of the International Standard IEC 60335-2-42:2002 was approved by CENELEC as a European Standard without any modification.

Foreword to amendment A1

The text of document 61E/618/FDIS, future amendment 1 to IEC 60335-2-42:2002, prepared by SC 61E, Safety of electrical commercial catering equipment, of IEC Technical Committee 61, Safety of household and similar electrical appliances, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60335-2-42:2003 on 2008-07-01.

The following dates are applicable:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2009-04-01

- date on which national standards conflicting with the amendment have to be withdrawn (dow) 2011-07-01

This amendment supplements or modifies the corresponding clauses of EN 60335-2-42:2003.

There are no special national conditions causing a deviation from this amendment.

There are no national deviations from this amendment.

Endorsement notice

The text of amendment 1:2008 to the International Standard IEC 60335-2-42:2002 was approved by CENELEC as an amendment to the European Standard without any modification.

In the Bibliography, add the following note to the standard mentioned:

ISO 13732-1

NOTE Harmonized as EN ISO 13732-1:2006 (not modified).

Documents
Document Sharing Hub

Full document details: BS EN 60335-2-42:2003+A12:2024

Foreword to amendment A11

This document (EN 60335-2-42:2003/A11:2012) has been prepared by the CLC/TC 61, "Safety of household and similar electrical appliances".

The following dates are fixed:

– latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2012-12-21
– latest date by which the national standards conflicting with the amendment have to be withdrawn	(dow)	2014-12-21

This amendment supplements or modifies the corresponding clauses of EN 60335-1:2012, EN 60335-2-42:2003 and EN 60335-2-42:2003/A1:2008.

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 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.

European foreword to amendment A2

The text of document 61/5325/FDIS, future IEC 60335-2-42/A2, prepared by IEC/TC 61 "Safety of household and similar electrical appliances" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60335-2-42:2003/A2:2024.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2025-05-15
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2027-11-15

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

This document is read in conjunction with EN 60335-2-42:2003/A12:2024.

This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

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

Endorsement notice

The text of the International Standard IEC 60335-2-42:2002/A2:2017 was approved by CENELEC as a European Standard without any modification.

Documents
Document Sharing Hub
Full document details: BS EN 60335-2-42:2003+A12:2024

European foreword to amendment A12

This document (EN 60335-2-42:2003/A12:2024) consists of the text 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) 2025-05-15
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2027-11-15

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

This document is read in conjunction with EN 60335-2-42:2003/A2:2024.

The numbering system for European clauses, subclauses, notes, tables, figures and annexes that are additional to those in the IEC standard are prefixed with the letter “Z”.

This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

Any feedback and questions on this document should be directed to the users’ national committee. A complete listing of these bodies can be found on the CENELEC website.

AVA Documents
Document Sharing Hub

Full document details: BS EN 60335-2-42:2003+A12:2024

CONTENTS

INTRODUCTION. 6

1 Scope 7
2 Normative references 8
3 Terms and definitions 8
4 General requirement 10
5 General conditions for the tests 10
6 Classification 11
7 Marking and instructions 12
8 Protection against access to live parts 15
9 Starting of motor-operated appliances 15
10 Power input and current 15
11 Heating 15
12 Void 17
13 Leakage current and electric strength at operating temperature 17
14 Transient overvoltages 18
15 Moisture resistance 18
16 Leakage current and electric strength 19
17 Overload protection of transformers and associated circuits 20
18 Endurance 20
19 Abnormal operation 20
20 Stability and mechanical hazards 21
21 Mechanical strength 23
22 Construction 23
23 Internal wiring 26
24 Components 26
25 Supply connection and external flexible cords 27
26 Terminals for external conductors 27
27 Provision for earthing 27
28 Screws and connections 28
29 Clearances, creepage distances and solid insulation 28
30 Resistance to heat and fire 28
31 Resistance to rusting 29
32 Radiation, toxicity and similar hazards 29

Annexes 33

Bibliography 37

Figures 30

Documents
Document Sharing Hub

Full document details: BS EN 60335-2-42:2003+A12:2024

INTRODUCTION

It has been assumed in the drafting of this International Standard that the execution of its provisions is entrusted to appropriately qualified and experienced persons.

This standard recognizes the internationally accepted level of protection against hazards such as electrical, mechanical, thermal, fire and radiation of appliances when operated as in normal use taking into account the manufacturer's instructions. It also covers abnormal situations that can be expected in practice and takes into account the way in which electro-magnetic phenomena can affect the safe operation of appliances.

This standard takes into account the requirements of IEC 60364 as far as possible so that there is compatibility with the wiring rules when the appliance is connected to the supply mains. However, national wiring rules may differ.

If an appliance within the scope of this standard also incorporates functions that are covered by another part 2 of IEC 60335, the relevant part 2 is applied to each function separately, as far as is reasonable. If applicable, the influence of one function on the other is taken into account.

When a part 2 standard does not include additional requirements to cover hazards dealt with in Part 1, Part 1 applies.

NOTE 1 This means that the technical committees responsible for the part 2 standards have determined that it is not necessary to specify particular requirements for the appliance in question over and above the general requirements.

This standard is a product family standard dealing with the safety of appliances and takes precedence over horizontal and generic standards covering the same subject.

NOTE 2 Horizontal and generic standards covering a hazard are not applicable since they have been taken into consideration when developing the general and particular requirements for the IEC 60335 series of standards. For example, in the case of temperature requirements for surfaces on many appliances, generic standards, such as ISO 13732-1 for hot surfaces, are not applicable in addition to Part 1 or part 2 standards.

An appliance 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.

An appliance employing materials or having forms of construction differing from those detailed in the requirements of this standard may be examined and tested according to the intent of the requirements and, if found to be substantially equivalent, may be considered to comply with the standard.

〖A12〗 This European Amendment A12 supplements or modifies the corresponding clauses of the standards below:

— EN 60335-1:2012+A11:2014+A13:2017+A1:2019+A14:2019+A2:2019+A15:2021+A16:2023 (Part 1)

— EN 60335-2-42:2003+AC:2007+A1:2008+A11:2012+A2:2023 (Part 2) 〈A12〗

Documents
Document Sharing Hub

Full document details: BS EN 60335-2-42:2003+A12:2024

HOUSEHOLD AND SIMILAR ELECTRICAL APPLIANCES ± SAFETY ±

Part 2-42: Particular requirements for commercial electric forced convection ovens, steam cookers and steam-convection ovens

1 Scope

This clause of Part 1 is replaced by the following.

This International Standard deals with the safety of electrically operated commercial **forced convection ovens**, **steam cookers, steam-convection ovens** and, exclusive of any other use, **steam generators**, not intended for household [A2] and similar [A2] use, their **rated voltage** being not more than 250 V for single-phase appliances connected between one phase and neutral and 480 V for other appliances.

[A2] This standard deals also with electrically operated commercial **forced convection ovens**, **steam cookers**, **steam-convection ovens** intended for use on board ships, for which Annex AA is applicable. [A2]

[C11]Additional requirements for appliances with power driven moving parts are given in Annex ZE.[C11]

NOTE 101 [A2] These appliances are used for commercial processing of food, for example in kitchens of restaurants, canteens, hospitals and in commercial enterprises such as bakeries, butcheries, etc. [A2]

The electrical part of appliances making use of other forms of energy is also within the scope of this standard.

[A12] This document deals with the reasonably foreseeable hazards presented by appliances that are encountered by all persons in and around the installation place. However, in general, it does not take into account:

— **children** playing with the appliance;

— the use of the appliance by **children**;

It is recognized that **very vulnerable people** can have needs beyond the level addressed in this document. [A12]

NOTE 102 Attention is drawn to the fact that

– [A2] for appliances intended to be used in vehicles or aircrafts, additional requirements may be necessary; [A2]
– in many countries additional requirements are specified by the national health authorities, the national authorities responsible for the protection of labour, the national water supply authorities and similar authorities;
– in many countries additional requirements are specified for pressure appliances.

[A11] NOTE 103 This standard does not apply to

– machines designed exclusively for industrial purposes,
– machines intended to be used in locations where a corrosive or an explosive atmosphere is present (dust, vapour or gas),
– [A2] appliances for continuous mass production of food. [A2]
– machinery for processing cosmetics, chemicals and pharmaceutical products,
– microwave ovens (IEC 60335-2-90); [A11]
– [A12] gas, oil or solid fuel burning appliances (EN IEC 60335-2-102).

This document does not deal with any specific requirements on noise emitted from these appliances the generated noise is not considered to be a relevant hazard. Thus, the emission sound pressure level L_{pA} is considered to be $L_{pA} \leq 70$ dB(A). [A12]

Documents Document Sharing Hub

Full document details: BS EN 60335-2-42:2003+A12:2024

2 Normative references

〈A2〉 This clause of Part 1 is applicable except as follows.

Addition:

IEC 60068-2-6, *Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-27, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

IEC 60068-2-52, *Environmental testing – Part 2: Tests – Test Kb: Salt mist, cyclic (sodium, chloride solution)*

IEC 60584-1, *Thermocouples – Part 1: EMF specifications and tolerances*

ISO 898-1, *Mechanical properties of fasteners made of carbon steel and alloy steel – Part 1: Bolts, screws and studs with specified property classes – Coarse thread and fine pitch thread*

ISO 3506-1, *Mechanical properties of corrosion-resistant stainless steel fasteners – Part 1: Bolts, screws and studs*

ISO 3506-2, *Mechanical properties of corrosion-resistant stainless steel fasteners – Part 2: Nuts*

ISO 3506-3, *Mechanical properties of corrosion-resistant stainless steel fasteners – Part 3: Set screws and similar fasteners not under tensile stress*

ISO 3506-4, *Mechanical properties of corrosion-resistant stainless steel fasteners – Part 4: Tapping screws* 〈A2〉

3 〈A2〉 Terms and definitions 〈A2〉

This clause of Part 1 is applicable except as follows.

3.1.4 *Addition:*

NOTE 101 The **rated power input** is the sum of the power inputs of all the individual elements in the appliance that can be on at one time; where there are several such combinations possible, that giving the highest power input is used in determining the **rated power input**.

3.1.9 *Replacement:*

normal operation

operation of the appliance under the following conditions

- Dry heat mode

The appliance is operated with all the shelves or the shelf trolley in position according to the manufacturer's instructions but with no load. The controls are set so that the mean value of the temperature over the **thermostat** cycle at the geometric centre of each usable space in the interior of the oven is maintained at 220 °C ± 4 °C. Stepped controls are set so that this temperature is 220 °C ± 15 °C.

For ovens that are unable to attain a temperature of 220 °C, the controls are set at the maximum.

For ovens that are capable of attaining temperatures in excess of 270 °C, the controls are set so that the mean value of the temperature is 50 °C ± 4 °C below the maximum temperature attainable.

AVA Documents Document Sharing Hub

Full document details: BS EN 60335-2-42:2003+A12:2024

- Steaming only mode

The appliance is operated in accordance with the manufacturer's instructions with all controls intended to be operated by the user adjusted to their maximum setting until reaching operating temperature. They are then readjusted, if possible, to the lowest setting that maintains that temperature.

Appliances with **steam generators** intended to be filled by hand or by a manually operated tap are filled to the **indicated level** on the **steam generator**.

Appliances with **steam generators** intended to be filled automatically are connected to a water supply having the pressure designated by the manufacturer. Where the manufacturer specifies a range of pressures, the pressure is adjusted to give the most unfavourable conditions.

The incoming water is maintained at

– 15 °C ± 5 °C in the case of appliances intended for connection to a cold water supply;

– 60 °C ± 5 °C or the temperature indicated in the instruction sheet, whichever is the higher, in the case of appliances intended for connection to a hot water supply only.

NOTE 101 If the appliance is intended for connection to either a hot or cold water supply, the temperature of the water is that which gives the most unfavourable results.

Lids, doors, and covers are in position and closed.

The **cooking compartment** of the appliance contains a water load, initially at 15 °C ± 5 °C, comprising 0,5 l/kg of the manufacturer's declared maximum food load. The water load is evenly distributed between the shelves or pans.

NOTE 102 Since pans may be perforated to allow for circulation of steam, the water load may be contained in suitable containers evenly distributed over the shelves or pans.

- Combination mode

The appliance is operated as for the steaming only mode but with the forced convection fan/s and elements for heating the **cooking compartment** on and the temperature controls set as for the dry heat mode.

In all the above cases, motors incorporated in the appliance are operated in the intended manner under the most severe conditions that can be expected in normal use, taking into account the manufacturer's instructions.

3.101
forced convection oven
an appliance intended for the cooking of food by heated air that is circulated by mechanical means within the **cooking compartment**. The pressure within the **cooking compartment** does not differ significantly from atmospheric pressure

3.102
steam cooker
an appliance intended for the cooking of food only by means of direct steam contact. The pressure within the **cooking compartment** can exceed atmospheric pressure

3.103
atmospheric steam cooker
an appliance in which the pressure within the **cooking compartment** does not differ significantly from atmospheric pressure

3.104
steam-convection oven
an appliance intended for the cooking of food either by means of direct steam contact or by heated air circulated by mechanical means within the **cooking compartment** or by a combination of these two modes. The pressure within the **cooking compartment** does not differ significantly from atmospheric pressure

3.105
rated pressure
the maximum working pressure of **steam cookers** and **steam generators** assigned by the manufacturer to the pressurized parts of the appliance

Documents
Document Sharing Hub
Full document details: BS EN 60335-2-42:2003+A12:2024

3.106
steam generator
that part of the appliance designed specifically for the generation of steam for exclusive use in a**cooking compartment**

NOTE The **steam generator** may be either combined within the **cooking compartment**, remote from the **cooking compartment** but contained within the same casing or function as a separate unit providing steam for one or more **cooking compartments**.

3.107
cooking compartment
that part of the appliance in which the cooking or food heating process takes place

3.108
indicated level
a mark on the appliance or **steam generator** to indicate the maximum liquid level for correct operation

3.109

installation wall
C11 fixed construction containing supply facilities for wall mounted appliances on one or both sides C11

A2 **3.110**
functional surface
surface that is intentionally heated by an internal heat source and has to be hot to carry out the function for which the appliance is intended

Note 1 to entry: An example is the heated sheath of a tubular heating element.

3.111
adjacent surface
surface adjacent to a **functional surface** and which can become hot through conduction A2

4 General requirement

This clause of Part 1 is applicable except as follows.

5 General conditions for the tests

This clause of Part 1 is applicable except as follows.

C11 **5.5** *Addition:*

- *Dry heat mode*

The appliance is operated with all the shelves or the shelf trolley in position according to the manufacturer's instructions but with no load. The controls are set so that the mean value of the temperature over the ***thermostat*** *cycle at the geometric centre of each usable space in the interior of the oven is maintained at 220 °C ± 4 °C. Stepped controls are set so that this temperature is 220 °C ± 15 °C.*

For ovens that are unable to attain a temperature of 220 °C, the controls are set at the maximum.

For ovens that are capable of attaining temperatures in excess of 270 °C, the controls are set so that the mean value of the temperature is 50 °C ± 4 °C below the maximum temperature attainable.

- *Steaming only mode*

The appliance is operated in accordance with the manufacturer's instructions with all controls intended to be operated by the user adjusted to their maximum setting until reaching operating temperature. They are then readjusted, if possible, to the lowest setting that maintains that temperature.

Appliances with ***steam generators*** *intended to be filled by hand or by a manually operated tap are filled to the* ***indicated level*** *on the* ***steam generator****.*

Documents
Document Sharing Hub

Full document details: BS EN 60335-2-42:2003+A12:2024

*Appliances with **steam generators** intended to be filled automatically are connected to a water supply having the pressure designated by the manufacturer. Where the manufacturer specifies a range of pressures, the pressure is adjusted to give the most unfavourable conditions.*

The incoming water is maintained at

– *15 °C ± 5 °C in the case of appliances intended for connection to a cold water supply,*

– *60 °C ± 5 °C or the temperature indicated in the instruction sheet, whichever is the higher, in the case of appliances intended for connection to a hot water supply only.*

NOTE 101 If the appliance is intended for connection to either a hot or cold water supply, the temperature of the water is that which gives the most unfavourable results.

Lids, doors, and covers are in position and closed.

*The **cooking compartment** of the appliance contains a water load, initially at 15 °C ± 5 °C, comprising 0,5 l/kg of the manufacturer's declared maximum food load. The water load is evenly distributed between the shelves or pans.*

NOTE 102 Since pans may be perforated to allow for circulation of steam, the water load may be contained in suitable containers evenly distributed over the shelves or pans.

- *Combination mode*

*The appliance is operated as for the steaming only mode but with the forced convection fan/s and elements for heating the **cooking compartment** on and the temperature controls set as for the dry heat mode.*

In all the above cases, motors incorporated in the appliance are operated in the intended manner under the most severe conditions that can be expected in normal use, taking into account the manufacturer's instructions. 〈C11〉

5.10 *Addition:*

*Appliances intended for installation in a bank of other appliances and appliances intended to be fixed to an **installation wall** are enclosed to obtain protection against electric shock and harmful ingress of water equivalent to that obtained when installed in accordance with the instructions provided with the appliance.*

NOTE 101 Appropriate enclosures or additional appliances may be needed for test purposes.

5.101 *Appliances are tested as **heating appliances**, even if they incorporate a motor.*

5.102 *Appliances, when assembled in combination with or incorporating other appliances, are tested in accordance with the requirements of this standard. The other appliances are operated simultaneously in accordance with the requirements of the relevant standards.*

6 Classification

This clause of Part 1 is applicable except as follows.

6.1 *Replacement:*

Appliances shall be **class I** with respect to protection against electric shock.

Compliance is checked by inspection and by the relevant tests.

〈A1〉 **6.2** *Addition*:

Appliances normally used on a table shall be at least IPX3. Other appliances shall be at least IPX4. 〈A1〉

Documents
Document Sharing Hub
Full document details: BS EN 60335-2-42:2003+A12:2024