



BSI Standards Publication

Domestic gas cooking appliances — Safety

Part 21: Particular requirements for gas hobs, gas grills and gas griddles

National foreword

This British Standard is the UK implementation of ISO 21364-21:2025. It supersedes PD ISO/TS 21364-1:2021, which is withdrawn.

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

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ISO 21364-21

**Domestic gas cooking appliances —
Safety —**

**Part 21:
Particular requirements for gas
hobs, gas grills and gas griddles**

*Appareils de cuisson domestiques utilisant les combustibles
gazeux — Sécurité —*

*Partie 21: Exigences particulières pour les tables de cuisson à gaz,
grils à gaz et grils par contact à gaz*

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Contents

Page

Foreword	vi
Introduction	vii
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
3.1 Definitions relating to components	2
4 Components in gas cooking appliances	2
4.1 General	2
4.2 Manual gas shut-off valves	2
4.3 Knobs	3
4.3.1 Design of knobs	3
4.3.2 Marking for knobs	3
4.4 Multifunctional controls	3
4.5 Thermoelectric flame supervision controls	3
4.6 Thermostats	3
4.7 Pressure regulators	3
4.8 Automatic shut-off valves	3
4.9 Injectors and adjusters	3
4.10 Ignition systems	3
4.11 Thermal cut-outs	3
4.12 Multi-ring burners	3
4.13 Overheating safety devices (OSD)	4
4.13.1 Requirement	4
4.13.2 Test procedure	5
5 General conditions of test	5
6 Heat input	5
6.1 General	5
6.2 Obtaining the nominal heat input	5
6.2.1 General	5
6.2.2 Test of hob burner	5
6.2.3 Test of multi-ring hob burner	6
6.2.4 Test of surface grill and griddle without a thermostat	6
6.2.5 Test of surface grill and griddle with a thermostat	6
6.3 Measurements and calculations	6
6.4 Obtaining the reduced heat input	6
6.4.1 General	6
6.4.2 Test of hob burner, surface grill and griddle burner	6
6.5 Total heat input	6
7 Heating	6
7.1 General	6
7.2 Operating conditions	6
7.3 Heating tests	7
7.4 Abnormal operation	7
7.4.1 General	7
7.4.2 Hob burner	7
7.4.3 Gas griddles	7
8 Combustion	7
8.1 Measurement of all burners simultaneously	7
8.2 Blocked combustion products outlet	7
8.3 Analysis of the combustion products	8
8.4 Single burner	8
8.4.1 General requirement	8

8.4.2	Hob burner, surface grill burner and griddle burner	8
8.4.3	Tests of multi-ring burner	9
8.4.4	Additional test of Type II and Type V multi-ring burners	10
8.4.5	Sampling the combustion products	10
8.5	Sooting test	13
8.5.1	Requirement	13
8.5.2	Test	13
9	Ignition, cross-lighting and flame stability	14
9.1	General	14
9.2	Movement of oven/grill door or cabinet door	14
9.3	Test for appliances having an automatic burner control system	14
9.4	Hob burner, surface grill burner and griddle burner	14
9.4.1	General	14
9.4.2	Cold conditions	14
9.4.3	Hot conditions	15
9.5	Multi-ring hob burner	16
9.5.1	Requirement	16
9.5.2	Additional test for Type I multi-ring burners	16
9.5.3	Additional test for Type II and Type V multi-ring burners	16
9.5.4	Resistance to draught	17
10	Accumulation of unburnt gas and leak tightness	18
11	Construction	18
11.1	General	18
11.2	Materials	19
11.2.1	General	19
11.2.2	Burner material test	19
11.2.3	Sealings	19
11.2.4	Resistance for non-metallic feet of pan supports	19
11.3	Gas inlet connections	19
11.4	Conversion to different gases	19
11.5	Pull forces of knobs for manual gas shut-off valves	19
11.6	Appliances that enable the user to program the start or the end of the cooking cycle	19
11.7	Compartment for one gas cylinder	19
11.8	Touch controls	19
11.8.1	General	19
11.8.2	Requirement	20
11.8.3	Test	20
11.9	Resistance to spillage	20
11.9.1	Requirement	20
11.9.2	Test	20
11.10	Specific hob parts and hob accessories	20
11.10.1	Pan supports	20
11.10.2	Removable devices for small pans	21
11.10.3	Special supports for convex-based pans	21
11.10.4	Covered burners	21
11.11	Shut down lids	21
11.11.1	Requirement	21
11.11.2	Test	22
11.11.3	Glass shut down lids	22
11.11.4	Shut-off device	22
12	Mechanical strength	23
12.1	Parts made of glass and glass-ceramic	23
12.1.1	General	23
12.1.2	Spring hammer test	23
12.1.3	Punch test	23
12.1.4	Thermal stress resistance for glass and glass-ceramic hob surfaces	23
12.2	Pan support	23

12.2.1	Requirement.....	23
12.2.2	Test.....	23
12.3	Pan support in contact with the glass or glass ceramic of the hob.....	23
13	Electrical safety	24
14	Marking and instructions	24
Annex A	(normative) National deviations in various countries.....	25
Annex B	(informative) Additional tests for hobs, surface grills and griddles supplied with natural gas and hydrogen admixtures	28
Annex C	(informative) Additional combustion test for NO₂ measurement of gas hobs burners.....	33
Bibliography		35

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 291, *Domestic gas cooking appliances*.

This first edition of ISO 21364-21:2025 cancels and replaces ISO/TS 21364-21:2021.

A list of all parts in the ISO 21364 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Gas burning appliances using fuel gases must withstand the type of gas which is specified. Other International Standards cover the testing and properties of fuel gases.

Due to the differing properties of fuel gas depending on its source and region of origin, certain differences in regulations exist in different regions at present; some of these differences are presented in [Annex A](#).

This document is designed to be used in combination with ISO 21364-1. Together, they establish the requirements to the product covered by this document. Where needed, this document adapts certain requirements from ISO 21364-1 with amendments such as:

- “with the following modification”;
- “with the following addition”;
- “is replaced by the following”;
- “is not applicable”.

In order to identify specific requirements that are particular to this document, and not already covered by ISO 21364-1, this document contains clauses or subclauses that differ to the structure of ISO 21364-1.

To ensure the global relevance of this document, the differing requirements resulting from practical experience and installation practices in various regions of the world are taken into account. The variations in basic infrastructure associated with appliances are also taken into account, some of which are addressed ISO 21364-1, Annex E and [Annex A](#) of this document. This document intends to provide a basic framework of requirements that recognize these differences.

Domestic gas cooking appliances — Safety —

Part 21: Particular requirements for gas hobs, gas grills and gas griddles

1 Scope

This document specifies requirements for safety, construction and materials of household gas surface cooking appliances.

NOTE 1 For general requirements regarding safety, construction and materials of household gas surface cooking appliances, see ISO 21364-1.

This document is applicable to the following:

- the following surface cooking appliances, being built-in, part of a cooking appliance or table top:
 - hobs;
 - surface grills;
 - griddles;
- hobs accessories.

It is not applicable to surface cooking appliances intended for either outdoor use or commercial use, or both, as well as electrical heated elements as part of the appliance.

NOTE 2 For requirements regarding electrical safety, refer to the IEC 60335 series.

NOTE 3 Attention is drawn to the fact that:

- for appliances intended to be used in vehicles or on board of ships or aircrafts, additional requirements can apply;
- in many countries, additional requirements are specified by the national health authorities, the national water supply authorities and similar authorities.

This document does not cover requirements relating to gas cylinders, their pressure regulators and their connections.

This document does not cover requirements for gas installation.

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.

ISO 21364-1, *Domestic gas cooking appliances — Safety — Part 1: General requirements*

ISO 23551-8:2016+AMD1:2019, *Safety and control devices for gas burners and gas-burning appliances — Particular requirements — Part 8: Multifunctional controls*

IEC 60730-2-9, *Automatic electrical controls for household and similar use — Part 2-9: Particular requirements for temperature sensing controls*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 21364-1 and the following apply.

ISO and IEC maintain terminological 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/>

3.1 Definitions relating to components

3.1.1

open burner

hob burner with the flame in direct contact with the pan

3.1.2

multi-ring burner

hob burner assembly having two or more rings of burner ports

Note 1 to entry: The term ring includes any distribution of burner ports around the central axis of the burner.

Note 2 to entry: A detailed description of the different types of multi-ring burners and their operating modes is given in [Table 1](#).

3.1.3

multi-ring burner with sectional control

multi-ring burner ([3.1.2](#)) that is designed so that one or more of its rings of burner ports can be utilised independently

3.1.4

multi-ring burner with simple control

multi-ring burner ([3.1.2](#)) that is designed so that its rings of burner ports cannot be utilised independently

3.1.5

overheating safety device

OSD

temperature sensing device which is intended to keep temperature below one particular value during abnormal operating conditions of the appliance and which has no provision for setting by the end user

Note 1 to entry: These devices usually use a thermistor or a bimetal sensing part (element).

4 Components in gas cooking appliances

4.1 General

ISO 21364-1:2025, Clause 4.1 shall apply in addition to the requirements specified in [Clause 4](#) of this document.

4.2 Manual gas shut-off valves

ISO 21364-1:2025, 4.2 shall apply with the following addition.

For multi-ring hob burners, the “off” position of a single sectional control with two closing directions shall be designed to make it impossible for the knob to be inadvertently moved from one adjustment range to

another. However, if each ring of such multi-sectional hob burner is supervised by a flame supervision device (FSD), the single sectional control shall stop in its “off” position.

4.3 Knobs

4.3.1 Design of knobs

ISO 21364-1:2025, 4.3.1 shall apply with the following addition.

If the control knob of a multi-ring burner operates by turning, the closing direction shall only be clockwise. This does not apply to multi-ring hob burners with a single sectional control and two closing directions.

4.3.2 Marking for knobs

ISO 21364-1:2025, 4.3.2 shall apply.

4.4 Multifunctional controls

ISO 21364-1:2025, 4.4 shall apply.

4.5 Thermoelectric flame supervision controls

ISO 21364-1:2025, 4.5 shall apply.

4.6 Thermostats

ISO 21364-1:2025, 4.6 shall apply.

4.7 Pressure regulators

ISO 21364-1:2025, 4.7 shall apply.

4.8 Automatic shut-off valves

ISO 21364-1:2025, 4.8 shall apply.

4.9 Injectors and adjusters

ISO 21364-1:2025, 4.9 shall apply.

4.10 Ignition systems

ISO 21364-1:2025, 4.10 shall apply.

4.11 Thermal cut-outs

ISO 21364-1:2025, 4.11 shall apply.

4.12 Multi-ring burners

[Table 1](#) shows examples of multi-ring burners and their operating modes.

Table 1 — Examples of types of multi-ring burners and their operating modes

Key 1 inner burner-ring 2 outer burner-ring 3 flame supervision sensor 4 manual gas shut-off valve 5 gas supply 6 connection to FSD 7 alternative connection to FSD				
FSD at inner or outer burner ring	FSD at inner or outer burner ring	FSD at inner and outer burner ring	FSD at inner and outer burner ring	FSD at inner or outer burner ring
Type I Simple control	Type II Sectional control	Type III Sectional control with two turning directions	Type IV Two single controls	Type V Sectional control with two turning directions
Multi-ring burner that is designed so that its rings of burner ports cannot be utilized independently, controlled by a manual gas shut-off valve with one outlet for common supply of all burner rings with one turning direction.	Multi-ring burner that is designed so that one or more of its rings of burner ports can be utilized independently, controlled by a manual gas shut-off valve with two or more outlets for separate supply of the burner rings with one turning direction.	Multi-ring burner that is designed so that one or more of its rings of burner ports can be utilized independently, controlled by a manual gas shut-off valve with two or more outlets for separate supply of the burner rings with two turning directions. The two rings cannot be operated together.	Multi-ring burner that is designed so that it has two or more manual gas shut-off valves each with one outlet for separate supply of the burner rings and same turning direction.	Multi-ring burner that is designed so that its control has two turning directions. One direction is for utilizing one burner ring. The other direction is to utilize both burner rings.

4.13 Overheating safety devices (OSD)

4.13.1 Requirement

An OSD, if any, shall conform with the requirements in ISO 23551-8:2016+A1:2019, Annex BB.

Electrical safety requirements for the OSD shall conform to IEC 60730-2-9.

An OSD for a gas hob shall be as follows:

- when tested according [4.13.2](#), the OSD shall prevent the oil temperature exceeding 300 °C;
- when the thermal sensing part is damaged, the gas passage to the burner shall be closed and shall not be reopened automatically;