

**Vedelgaasiseadmete tehniline kirjeldus. Grillahjud välikasutuseks, kontaktgrillid kaasa arvatud**

**Specification for dedicated liquefied petroleum gas appliances - Barbecues for outdoor use contact grills included**

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

See Eesti standard EVS-EN 498:2012 sisaldab Euroopa standardi EN 498:2012 ingliskeelset teksti.	This Estonian standard EVS-EN 498:2012 consists of the English text of the European standard EN 498:2012.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 11.01.2012.	Date of Availability of the European standard is 11.01.2012.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 97.040.20

Võtmesõnad: barbecue, classifications, cooking appliances, definitions, equipment specifications, exteriors, gas appliances, liquefied petroelum gases, marking, performance evaluation, safety, technical notices, tests, verification,

### Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:  
Aru 10, 10317 Tallinn, Eesti; [www.evs.ee](http://www.evs.ee); telefon 605 5050; e-post [info@evs.ee](mailto:info@evs.ee)

### The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:  
Aru 10, 10317 Tallinn, Estonia; [www.evs.ee](http://www.evs.ee); phone 605 5050; e-mail [info@evs.ee](mailto:info@evs.ee)

English Version

## Specification for dedicated liquefied petroleum gas appliances - Barbecues for outdoor use contact grills included

Spécifications pour les appareils fonctionnant  
exclusivement aux gaz de pétrole liquéfiés - Barbecues  
utilisés en plein air y compris grilloirs par contact

Festlegungen für Flüssiggasgeräte - Grillgeräte zur  
Verwendung im Freien einschließlich Kontaktgrillgeräte

This European Standard was approved by CEN on 12 November 2011.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

Management Centre: Avenue Marnix 17, B-1000 Brussels

## Contents

Page

Foreword.....	5
1 Scope .....	6
2 Normative references .....	6
3 Terms and definitions .....	7
4 Classification .....	12
4.1 Classification of gases used .....	12
4.2 Classification of appliances .....	12
5 Constructional characteristics .....	13
5.1 Conversion to different gases .....	13
5.2 Materials .....	13
5.3 Ease of cleaning .....	14
5.4 Strength .....	14
5.4.1 General.....	14
5.4.2 Characteristics of glass panels.....	14
5.5 Assembly.....	14
5.6 Stability.....	15
5.6.1 Stability of the appliance on a horizontal plane.....	15
5.6.2 Stability of the appliance placed on a slope.....	15
5.7 Soundness of the gas circuit assembly.....	15
5.8 Connections .....	16
5.9 Locking of wheels and castors .....	16
5.10 Taps.....	16
5.10.1 General.....	16
5.10.2 Taps with marked positions .....	17
5.10.3 Taps with variable positions .....	17
5.11 Control handles .....	17
5.11.1 Construction .....	17
5.11.2 Marking .....	17
5.12 Injectors.....	18
5.13 Ignition devices.....	18
5.14 Flame supervision devices.....	19
5.15 Burners .....	19
5.16 Grid.....	20
5.17 Turnspits .....	20
5.18 Appliance incorporating a gas cylinder .....	20
5.19 Durability of markings.....	21
5.20 Auxiliary energy.....	21
6 Performance characteristics .....	21
6.1 Soundness .....	21
6.2 Verification of heat inputs.....	21
6.2.1 Verification of individual nominal heat inputs.....	21
6.2.2 Verification of full heat input.....	22
6.3 Flame supervision devices.....	22
6.4 Safety of operation .....	22
6.4.1 Ignition, crosslighting .....	22
6.4.2 Flame stability.....	22
6.4.3 Resistance to draught.....	22

6.4.4	Resistance to overheating.....	22
6.5	Temperatures.....	22
6.6	Overheating of the gas cylinder(s).....	23
6.7	Combustion.....	24
6.8	Sooting.....	24
7	Test methods.....	24
7.1	General.....	24
7.1.1	Test gases.....	24
7.1.2	Test pressures.....	25
7.1.3	Test procedures.....	26
7.2	Verification of the constructional characteristics.....	26
7.2.1	Conversion to different gases.....	26
7.2.2	Materials.....	26
7.2.3	Ease of cleaning.....	26
7.2.4	Strength.....	27
7.2.5	Assembly.....	27
7.2.6	Stability of the appliance.....	27
7.2.7	Soundness of the gas circuit assembly.....	28
7.2.8	Connections.....	28
7.2.9	Locking of wheels and castors.....	28
7.2.10	Taps.....	28
7.2.11	Control handles.....	28
7.2.12	Injectors.....	28
7.2.13	Ignition devices.....	28
7.2.14	Flame supervision devices.....	28
7.2.15	Burners.....	28
7.2.16	Grid.....	28
7.2.17	Turnspit.....	29
7.2.18	Appliances incorporating a gas cylinder(s).....	29
7.2.19	Durability of markings.....	29
7.2.20	Auxiliary energy.....	29
7.3	Verification of the performance characteristics.....	29
7.3.1	Soundness.....	29
7.3.2	Verification of the nominal heat input.....	29
7.3.3	Flame supervision device.....	29
7.3.4	Safety of operation.....	30
7.3.5	Temperatures.....	32
7.3.6	Overheating of the gas cylinder.....	32
7.3.7	Combustion.....	33
7.3.8	Sooting.....	34
7.3.9	Durability of the marking.....	34
8	Marking.....	34
8.1	Appliance marking.....	34
8.2	Packaging marking.....	35
8.3	Instructions for assembly, use and maintenance.....	35
Annex A	(normative) National situations.....	42
A.1	General.....	42
A.2	Categories marketed in the various countries and corresponding pressures.....	42
A.3	Types of connection used in various countries.....	44
A.4	Connection of appliances.....	46
Annex B	(normative) Method of calculation of the nominal heat input.....	48
B.1	Heat input determination.....	48
B.2	Correction formulas for reference conditions.....	48
B.3	Use of wet gas meter.....	49
B.4	Pressure correction.....	49

<b>Annex C (normative) Composition of test gases</b> .....	<b>51</b>
<b>C.1 Gas used</b> .....	<b>51</b>
<b>C.2 Acceptance criteria for test gases</b> .....	<b>51</b>
<b>C.3 Purity</b> .....	<b>51</b>
<b>Annex D (informative) Mandatory sentences</b> .....	<b>52</b>
<b>D.1 English</b> .....	<b>52</b>
<b>D.2 French</b> .....	<b>52</b>
<b>D.3 German</b> .....	<b>52</b>
<b>D.4 Italian</b> .....	<b>53</b>
<b>D.5 Polish</b> .....	<b>53</b>
<b>D.6 Spanish</b> .....	<b>53</b>
<b>D.7 Dutch</b> .....	<b>54</b>
<b>D.8 Czech</b> .....	<b>54</b>
<b>D.9 Greek</b> .....	<b>54</b>
<b>D.10 Hungarian</b> .....	<b>55</b>
<b>D.11 Portuguese</b> .....	<b>55</b>
<b>D.12 Swedish</b> .....	<b>55</b>
<b>D.13 Danish</b> .....	<b>56</b>
<b>D.14 Finnish</b> .....	<b>56</b>
<b>D.15 Lithuanian</b> .....	<b>56</b>
<b>D.16 Norwegian</b> .....	<b>57</b>
<b>D.17 Slovak</b> .....	<b>57</b>
<b>D.18 Estonian</b> .....	<b>57</b>
<b>D.19 Latvian</b> .....	<b>58</b>
<b>D.20 Slovenian</b> .....	<b>58</b>
<b>D.21 Icelandic</b> .....	<b>58</b>
<b>D.22 Maltese</b> .....	<b>59</b>
<b>D.23 Romanian</b> .....	<b>59</b>
<b>Annex ZA (informative) Clauses of this European Standard addressing essential requirements or other provisions of EU Directives</b> .....	<b>60</b>
<b>Bibliography</b> .....	<b>63</b>

## Foreword

This document (EN 498:2012) has been prepared by Technical Committee CEN/TC 181 "Dedicated liquefied petroleum gas appliances", the secretariat of which is held by AFNOR.

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 July 2012, and conflicting national standards shall be withdrawn at the latest by July 2013.

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

This document supersedes EN 498:1997.

This document 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 document.

The main changes compared to the former version are the following:

- approved quick self closing connection used for auxiliary burners are not subjected to the obligation of being manufactory mounted;
- clearer specifications for lighting and cross lighting when more than one burner are in a same enclosure, use of flash tube;
- introduction of a logo or warning forbidding cylinders in places of the appliance not designed for cylinder storage;
- rewording of the test for checking over heating of gas cylinder compartment;
- addition of a warning about the updating of information relating to national situations;
- addition of an annex listing the mandatory sentences to be written on appliances, packaging and in instructions in the various CEN members countries languages.

Items relating to quality assurance systems, production testing and particularly certificates of conformity of auxiliary equipment are not covered by this European Standard.

Particular attention should be paid to the quality of non metallic materials used in the construction of these appliances. A European Standard specifying requirements for "Rubber materials for seals and diaphragms for gas appliances and equipment" has been prepared by CEN TC 108 (EN 549). A European Standard for "Flexible hose, tubing and assembles for use with butane or propane in the vapour phase" is being prepared.

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, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

## 1 Scope

This European Standard specifies the constructional and performance characteristics, safety specifications, relevant test methods and marking of barbecues burning liquefied petroleum gas, referred to in the body of the text as "appliances".

This European Standard covers barbecues as defined in 3.6 and contact grills as defined in 3.8, used outdoors and operating with the gases indicated in 4.1 according to the categories indicated in 4.2. They are fitted with at least one cooking device.

This European Standard applies to these appliances and their functional sections whether or not the latter are independent or incorporated into an assembly.

This European Standard also applies to appliances designed to be built-in.

This European Standard only applies to type testing.

Appliances supplied with third family gas at pressures greater those defined in 4.2 are outside the field of application of this European Standard.

During the consideration of this text, it was apparent that the concept of thermal efficiency with regard to appliances such as barbecues was not appropriate.

This is because:

- during cooking, there is an additional transfer of heat due to the meat juices falling onto the refractories;
- there is no relation between the item to be cooked and the useful area;
- the barbecue is an outdoor appliance in which the action of the wind is important in relation to efficiency.

In consequence there is no specific requirement covering thermal efficiency for this type of appliance.

This European Standard does not state all applicable requirements for integral equipments of other nature (for example burners covered by EN 484).

## 2 Normative references

The following referenced documents are indispensable for the application 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 125, *Flame supervision devices for gas burning appliances — Thermoelectric flame supervision devices*

EN 126, *Multifunctional controls for gas burning appliances*

EN 437:2003+A1:2009, *Test gases — Test pressures — Appliance categories*

EN 10226-1, *Pipe threads where pressure tight joints are made on the threads — Part 1: Taper external threads and parallel internal threads — Dimensions, tolerances and designation*

EN 10226-2, *Pipe threads where pressure tight joints are made on the threads — Part 2: Taper external threads and taper internal threads — Dimensions, tolerances and designation*



EN 60335-1, *Household and similar electrical appliances — Safety — Part 1: General requirements (IEC 60335-1, modified)*

EN ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation (ISO 228-1)*

### 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

#### 3.1

##### **cooking devices**

component parts of the appliance designed to hold or receive the food to be cooked (grids, turnspits, plates, etc.)

#### 3.2

##### **detachable**

can be dismantled without using a tool

#### 3.3

##### **appliance incorporating a gas cylinder**

appliance whose body or support includes a compartment for a liquefied petroleum gas cylinder, or a fixing or support device for this cylinder

#### 3.4

##### **built-in appliance**

appliance designed to be built into a brick or similar structure

#### 3.5

##### **auxiliary equipment**

component and device acting directly or indirectly on the gas rate

#### 3.6

##### **barbecue**

appliance principally designed to roast and/or grill foodstuffs

NOTE Cooking is achieved by the action of radiant heat and, possibly by convection and/or conduction.

#### 3.7

##### **movable barbecue**

barbecue fitted with at least one wheel enabling it to be moved easily on the ground

#### 3.8

##### **contact grill, plancha**

appliance designed to grill foodstuffs by conduction

#### 3.9

##### **locking of an adjuster**

immobilisation by the manufacturer or by an installer of an adjuster, in its adjustment position by any means (a screw, etc.)

#### 3.10

##### **turnspit**

cooking device enabling the rotation of the food to be roasted