

SPETSIAALSED VEDELGAASISEADMETE
SPETSIFIKATSIOONID. VEDELGAASI AURURÕHUL
TÖÖTAVAD SEADMED, MILLE ŠASSII KASSETTMOODUL
ON HORISONTAALNE

Specifications for dedicated liquefied petroleum gas
appliances - LPG vapour pressure appliances
incorporating a horizontal cartridge in the chassis

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 17476:2021+A1:2022 sisaldab Euroopa standardi EN 17476:2021+A1:2022 ingliskeelset teksti.	This Estonian standard EVS-EN 17476:2021+A1:2022 consists of the English text of the European standard EN 17476:2021+A1:2022.
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 and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 09.02.2022.	Date of Availability of the European standard is 09.02.2022.
Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

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

ICS 23.020.35

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardimis- ja Akrediteerimiskeskusele

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

Kui Teil on küsimusi standardite autoriõiguse kaitse kohta, võtke palun ühendust Eesti Standardimis- ja Akrediteerimiskeskusega: Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

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

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 and Accreditation.

If you have any questions about standards copyright protection, please contact the Estonian Centre for Standardisation and Accreditation: Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

English Version

Specifications for dedicated liquefied petroleum gas appliances - LPG vapour pressure appliances incorporating a horizontal cartridge in the chassis

Spécifications pour les appareils fonctionnant exclusivement aux gaz de pétrole liquéfiés - Appareils GPL à pression de vapeur incorporant une cartouche horizontale dans leur châssis

Festlegungen für Flüssiggasgeräte - Mit Dampfdruck betriebene Flüssiggasgeräte, die eine waagerechte Kartusche im Gehäuse enthalten

This European Standard was approved by CEN on 12 March 2021 and includes Amendment 1 approved by CEN on 10 November 2021.

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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword.....	5
1 Scope.....	6
2 Normative references.....	6
3 Terms and definitions.....	7
4 Classification of appliances.....	10
5 Safety requirements.....	11
5.1 General.....	11
5.2 Adjustment of the burner.....	11
5.3 Materials.....	11
5.4 Assembly, cleaning and maintenance.....	12
5.4.1 Assembly.....	12
5.4.2 Cleaning, maintenance.....	12
5.5 Strength and stability.....	12
5.5.1 Strength.....	12
5.5.2 Stability.....	12
5.6 Soundness of the gas circuit assembly.....	13
5.7 Connections.....	13
5.8 Transport, fixing and mobility devices.....	13
5.9 Taps.....	13
5.10 Pressure sensitive safety device.....	13
5.11 Control handles.....	14
5.11.1 Construction.....	14
5.11.2 Marking.....	14
5.12 Injectors.....	14
5.13 Ignition devices.....	14
5.14 Flame supervision devices.....	15
5.15 Burners and radiant elements.....	15
5.16 Grids.....	15
5.17 Fireguards for heating appliances.....	15
5.18 Compartment for gas cartridge.....	16
5.19 Heat input.....	16
5.20 Resistance to overheating.....	16
5.21 Temperature of various parts of the appliance and cartridge.....	16
5.22 Temperature of panels (floors, walls).....	17
5.23 Ignition, crosslighting and flame stability.....	17
5.24 Resistance to draught.....	17
5.25 Resistance to liquid spillage.....	17
5.26 Combustion.....	17
5.27 Accumulation of un-burnt gas.....	17
5.28 Safety at high temperature.....	18
5.29 Sooting - condensation.....	18
5.30 Rational use of energy of stove burners.....	18
5.31 Durability of markings.....	18
5.32 Strength and endurance requirements.....	18

5.33	Atmosphere sensing device	18
6	Test methods	19
6.1	General	19
6.1.1	Test gases.....	19
6.1.2	Test conditions	19
6.1.3	Test gases and pressures	19
6.1.4	Test vessel	20
6.2	Adjustment of the burner	20
6.3	Materials	20
6.4	Assembly, cleaning and maintenance	20
6.5	Strength and stability.....	21
6.5.1	Strength.....	21
6.5.2	Stability	21
6.6	Soundness of the gas circuit assembly	22
6.6.1	Soundness of the appliance.....	22
6.6.2	Soundness of burner assemblies.....	22
6.7	Connections	22
6.8	Transport, fixing and mobility devices.....	22
6.9	Taps	22
6.10	Pressure sensitive safety device design and test	22
6.11	Control handles	23
6.12	Injectors	23
6.13	Ignition devices	23
6.14	Flame supervision devices	23
6.14.1	General	23
6.14.2	Ignition delay time	23
6.14.3	Extinction delay time.....	23
6.15	Burners and radiant elements.....	23
6.16	Grids	23
6.17	Fireguards for heating appliances.....	24
6.17.1	Strength of fireguards	24
6.17.2	Dimensions	24
6.18	Compartments for gas cartridge	24
6.19	Verification of heat inputs	24
6.19.1	Test	24
6.19.2	Calculation of heat inputs	25
6.20	Resistance to overheating	25
6.21	Temperatures of the various parts of the appliance and cartridge	26
6.21.1	Test installation	26
6.21.2	Test method	26
6.22	Temperature of panels (floor, wall).....	27
6.23	Ignition, crosslighting and flame stability	27
6.23.1	Test conditions	27
6.23.2	Test on individual burners, others being extinguished.....	27
6.23.3	Test on individual burners, others being lit	27
6.24	Resistance to draught.....	28
6.25	Resistance to liquid spillage	28
6.26	Combustion	28
6.26.1	General conditions	28
6.26.2	Stove burners	29
6.26.3	Analysis of the products of combustion.....	29
6.27	Accumulation of un-burnt gases	29

6.28	Safety at high temperature	29
6.29	Sooting - condensation	30
6.30	Rational use of energy of stove burners	30
6.31	Durability of the markings	31
6.32	Strength and endurance test	32
6.33	Atmosphere sensing devices	32
7	Markings	32
7.1	Appliance marking	32
7.2	Packaging marking	33
8	Instructions for use, maintenance and assembly	33
8.1	General	33
8.2	Instruction contents	33
Annex A (normative) Characteristics of test vessels (see 6.5.2.3)		42
Annex B (normative) Tests on taps		43
B.1	Resistance to temperature	43
B.2	Endurance	43
Annex C (normative) Vitiation room		44
C.1	Dimension	44
C.2	Sealing requirement	44
C.3	Construction	44
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Regulation (EU) 2016/426/EC		46
Bibliography		49

European foreword

This document (EN 17476:2021+A1:2022) has been prepared by Technical Committee CEN/TC 181 “Appliances and leisure vehicle installations using liquefied petroleum gas and appliances using natural gas for outdoor use”, 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 August 2022, and conflicting national standards shall be withdrawn at the latest by August 2022.

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

This document includes Amendment 1 approved by CEN on 10 November 2021.

This document supersedes A1 EN 17476:2021 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

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 Regulation (EU) 2016/426 of the European Parliament and of the Council of 9 March 2016 on appliances burning gaseous fuels and repealing Directive 2009/142/EC.

For relationship with EU Regulation (EU) 2016/426, see informative Annex ZA, which is an integral part of this document.

Appliances covered by this document differ from the ones covered by EN 521:2019+AC:2019 by the fact that the gas cartridge is incorporated inside the appliance body in a position which can create particular situations which need different approach than these used in EN 521:2019+AC:2019.

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

According to the CEN-CENELEC Internal Regulations, the national standards organisations 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, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

1 Scope

This document specifies the construction characteristics, performances and marking related to safety and the rational use of energy of portable, flat gas appliances directly supplied at the LPG vapour pressure, incorporating a gas cartridge complying with EN 417:2012, inserted horizontally in the chassis.

NOTE 1 These appliances are referred to in the body of the text as “appliances”.

This document covers appliances for outdoor or in well ventilated areas uses only.

This document does not cover appliances supplied by an external gas source.

For example, the following types of appliances are covered:

- a) cooking appliances (stoves, barbecues);
- b) heating appliances.

This document specifies the requirements applicable to these appliances or their functional sections whether or not the latter are independent or incorporated into an assembly.

Appliances covered by this document are not connected to a flue for the discharge of products of combustion and are not connected to the mains electricity supply.

This document covers neither appliances supplied with LPG in the liquid phase nor appliance with fixed integral container which could be refilled by the user.

This document does not cover appliances of direct pressure propane category.

Requirements for rational use of energy have been considered for stove burners.

NOTE 2 However, such requirements have not been considered for the other types of appliances because:

- for barbecues, this type of cooking varies according to the type of food and region where the appliance is used;
- for heating appliances, all the heat produced is discharged into the environment.

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.

EN 30-1-1:2008+A3:2013, *Domestic cooking appliances burning gas - Part 1-1: Safety - General*

EN 125:2010+A1:2015, *Flame supervision devices for gas burning appliances - Thermoelectric flame supervision devices*

EN 437:2018, *Test gases — Test pressures — Appliance categories*

EN 549:2019, *Rubber materials for seals and diaphragms for gas appliances and gas equipment*