

norm**NEN-EN 484**

Eisen voor vloeibaargastoestellen -
Kookplaten, inclusief die met een grill, voor
gebruik buitenshuis

Publicatie uitsluitend voor commentaar

Specification for dedicated liquefied petroleum gas appliances -
Independent stoves including those incorporating a grill for outdoor use

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Voorbeeld
Preview

August 2015

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Will supersede EN 484:1997

English Version

Specification for dedicated liquefied petroleum gas appliances - Independent stoves, including those incorporating a grill for outdoor use

Spécifications pour les appareils fonctionnant
exclusivement aux gaz de pétrole liquéfiés - Réchauds
indépendants, équipés ou non d'un grilloir, utilisés en plein
air

Festlegungen für Flüssiggasgeräte - Flüssiggasbetriebene
Kochgeräte einschließlich solcher mit Grillteilen zur
Verwendung im Freien

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Orbweel
Preview

Foreword

This document (prEN 484:2015) has been prepared by Technical Committee CEN/TC 181 "Dedicated liquefied petroleum gas appliances", the secretariat of which is held by AFNOR.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 484:1997.

The main changes compared to EN 484: 1997 are:

- The scope has been modified to indicate that regulators are not covered by this standard;
- Inconsistencies raised by the European Commission against gas appliance directive have been addressed;
- Differences on test pressures between French and English versions have been addressed;
- The wording "hotplate" (not adapted for appliances covered by EN 484) has been replaced by "stove";
- The definition 3.9 "auxiliary equipment" has been replaced by "fitting" in the sense of the Gas Appliance Directive;
- Compliance to EN 1106 or EN 126 for the taps has been added;
- Paragraphs 7.2.X regarding to the type of examination (visual and/or mechanical) has been reworded;
- The requirement for rational use of energy for covered burners has been removed;
- A 300 mm diameter pan and the corresponding sampling of product of combustion have been added;
- Test conditions for combustion and rational use of energy have been updated according to other standards;
- Annex ZA has been finalized.

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 Gas Appliance Directive 2009/142/CE.

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

prEN 484:2015 (E)**1 Scope**

This European Standard specifies constructional and performance characteristics, safety specifications and rational use of energy, relevant test methods and marking of independent stoves, side burners, covered burners, open burners, contact grills, radiant grills, burning liquefied petroleum gas, referred to in the body of the text as "appliances".

This standard covers appliances, used outdoors and operating with the gases indicated in 4.1 and according to the categories specified in 4.2.

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

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

Appliances used in leisure vehicles and boats are outside the field of application of this standard.

Independent stove burners, whose nominal heat input is below 1,16 kW and grills, are not subject to any special requirement concerning the rational use of energy due to their low rate and their use for short periods of time.

This European Standard does not state all applicable requirements for integral equipments of other nature (for example barbecues covered by EN 498).

This standard does not cover regulators that shall be used with those appliances and covered by EN 16129.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 125:2010, *Flame supervision devices for gas burning appliances — Thermoelectric flame supervision devices*

EN 126:2012, *Multifunctional controls for gas burning appliances*

EN 549:1994, *Rubber materials for seals and diaphragms for gas appliances and gas equipment*

EN 1106, *Manually operated taps for gas burning appliances*

EN 10226-1:2004, *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 10226-2:2005, *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 60335-1:2012, *Household and similar electrical appliances — Safety — Part 1: General requirements (IEC 60335-1:2010, modified)*

EN 60584-1:1995, *Thermocouples — Part 1: Reference tables (IEC 60584-1:1995)*

EN ISO 228-1:2003, *Pipe threads where pressure-tight joints are not made on the threads — Part 1: Dimensions, tolerances and designation (ISO 228-1:2000)*

3 Terms and definitions

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

3.1

independent stove

cooking appliance incorporating one or several covered or open burners and, if applicable, one or several contact or radiant grills

3.2

side burner

part of a cooking appliance incorporating one or several covered or open burners

Note 1 to entry: It is designed in such a way that it can support the pans containing the food.

3.3

contact grill

part of a stove consisting of a plate placed above a burner, allowing for the cooking of food by direct contact with the surface of this plate which is brought to a high temperature

Note 1 to entry: It may be:

- permanent, that is designed to be used only in the above conditions;
- with two functions : that is designed to be capable of being also used as covered or open burner after removal or change of the detachable plate.

3.4

radiant grill

appliance or part of an appliance allowing for cooking by radiation from a surface brought to a high temperature

3.5

cooking device

component part of the appliance designed to hold or receive the food to be cooked

3.6

appliance incorporating a gas container

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

3.7

detachable

which can be dismantled without using a tool

3.8

removable

which can only be removed with a tool

3.9

fittings

safety devices, controlling devices or regulating devices and sub-assemblies, incorporated into the stove

Note 1 to entry: For example: tap, flame supervision device, ignition device...

3.10

burner

component that allow the gas to burn

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Note 1 to entry: It may be:

- non-aerated burner, in which the air for combustion is entrained entirely at the burner outlet;
- aerated burner, in which part of the air for combustion, termed primary air, is entrained by the gas flow and mixed before the burner outlet. The remainder of the air, termed secondary air, is drawn in after the burner outlet.

3.11**ignition burner (pilot)**

small burner whose flame is designed to light another burner

3.12**covered burner**

burner where the pans being heated are screened from direct flame contact by the interposition of a surface on which they rest

Note 1 to entry: A covered burner may be:

- permanent, that is designed to be used only with the plate in position;
- with two functions : that is designed to be capable of being used as uncovered burner after removal of a detachable plate.

3.13**open burner**

burner where the pans being heated are in direct contact with the flames

3.14**pan support**

support placed above an open burner, and designed to support the pan being heated

3.15**injector**

component part that admits the gas into an aerated burner

Note 1 to entry: There are two types of injectors:

- calibrated injectors where the section of the outlet orifice is fixed;
- adjustable injectors where the section of the outlet orifice is variable.

3.16**tap**

device designed to isolate a burner from the gas supply pipework and to adjust its rate during use

3.17**ignition device**

device to ignite one or more burners directly or indirectly, for instance through a flash tube

Note 1 to entry: It may be:

- either electric (resistance, spark, etc.)
- or thermal (flame, pilot, etc.).

3.18**flame supervision device**

device which, due to the presence of a flame on the sensing element, keeps open the gas flow to the burner and pilot and which cuts off the gas supply to the burner and pilot in the case of extinction of the supervised flame

3.19**ignition delay time**

time between the ignition of the flame supervised, the appliance being at room temperature, and the moment when the effect of this flame is sufficient to keep the closing member open

3.20**extinction delay time**

time between the extinction of the flame supervised and the closure of the gas supply to the burner and to the pilot

3.21**control handle**

component designed to be operated manually so as to control the movement of a control of the appliance, such as a tap, etc.

3.22**gripping area**

area of the appliance designed to be manipulated during normal use

3.23**means of sealing**

static or dynamic device designed to ensure soundness, for example: flat-faced joints, O-ring joints, conical joints, diaphragms, grease pastes, putties...

3.24**primary air adjuster**

device allowing the aeration rate of a burner to be set at a predetermined value according to the supply conditions

Note 1 to entry: The action consisting in operating this device is termed "primary air adjustment".

3.25**gas rate adjuster**

device allowing the gas rate to a burner to be set at a predetermined value according to the supply conditions

Note 1 to entry: The adjustment can be continuous (adjustment screw) or discontinuous (changing the calibrated orifices).

Note 2 to entry: The operation of changing the setting of this device is termed the "adjustment of the gas rate".

3.26**useful part of a cooking device**

part of the device in contact with the food during cooking

3.27**locking**

means of locking an adjuster, such that any attempt to change the adjustment causes the breaking of the sealing device or sealing material and makes the interference with the adjuster apparent

Note 1 to entry: The adjuster is said to be sealed in the adjusted position. An adjuster sealed at the factory is considered as non existent.

prEN 484:2015 (E)**3.28****soft solder**

solder for which the lowest temperature of the melting range, after application, is less than 450 °C

3.29**pressure couple**

set of two separate supply gas pressures applied because of the large difference between the Wobbe indexes within a gas family or a gas group:

- the highest pressure applies only with gases of low Wobbe index;
- the lowest pressure applies only with gases of high Wobbe index.

[SOURCE: EN 437:2003+A1:2009]

3.30**heat input**

quantity of energy used in unit time corresponding to the volumetric or mass flow rates, the calorific value used being either the net or gross calorific value

Note 1 to entry: The heat input is expressed in kilowatts (kW).

[SOURCE: EN 437:2003+A1:2009]

3.31**nominal heat input of a burner**

Q_n

value of the heat input declared in the instructions

3.32**mass flow rate**

M

mass of gas consumed by the appliance in unit time during continuous operation

Note 1 to entry: The mass flow rate is expressed in kilograms per hour (kg/h) or grams per hour (g/h).

[SOURCE: EN 437:2003+A1:2009]

3.33**volume flow rate**

V

volume of gas consumed by the appliance in unit time during continuous operation

Note 1 to entry: The volume flow rate is expressed in cubic metres per hour (m³/h), litres per minute (l/min), cubic decimetres per hour (dm³/h) or cubic decimetres per second (dm³/s).

[SOURCE: EN 437:2003+A1:2009]

3.34**sooting**

phenomenon appearing during incomplete combustion and characterized by a deposit of carbon on surfaces in contact with the flame or the products of combustion

3.35**stability of flames**

condition of flames when the phenomenon of flame lift or light back do not occur

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