

COMMISSION DECISION (EU) 2015/547**of 1 April 2015****on the safety requirements to be met by European standards for alcohol-powered flueless fireplaces pursuant to Directive 2001/95/EC of the European Parliament and of the Council on general product safety****(Text with EEA relevance)**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2001/95/EC of the European Parliament and of the Council of 3 December 2001 on general product safety ⁽¹⁾, and in particular Article 4(1)(a) thereof,

Whereas:

- (1) Products which conform to national standards transposing European standards drawn up under Directive 2001/95/EC and referenced in the *Official Journal of the European Union* benefit from a presumption of safety.
- (2) European standards are to be drawn up on the basis of requirements intended to ensure that products which conform to them satisfy the general safety requirement set out in Article 3 of Directive 2001/95/EC.
- (3) No European standards exist for alcohol-powered flueless fireplaces, although according to the existing studies various hazards are associated with them ⁽²⁾ ⁽³⁾. Many models are designed with detachable fuel containers which are placed in a chamber within the fireplace, and fuel may therefore spill within the chamber. It may then evaporate, increase in temperature and deflagrate, causing sudden combustion. The rapid spread of flames puts the user at risk of burns and may ignite surrounding materials. Refuelling an ethanol fireplace while it is still hot is very dangerous, as ethanol may vaporise quickly, ignite and cause an explosion. Free-standing floor models could be placed too close to combustible materials and may consequently cause fires. Faulty installation of wall-mounted fireplaces may cause overheating, which may in turn lead to the fireplace becoming detached from the wall while still in operation ⁽⁴⁾. There is also a risk that free-standing floor models may overturn. Should this occur, the burning fuel would spill out of the fireplace, spreading fire into the surrounding room area.
- (4) The combustion of fuels in alcohol-powered flueless fireplaces may put human health at risk. If incomplete combustion occurs, carbon monoxide, a toxic compound, is formed. If complete combustion occurs, carbon dioxide is formed, which is hazardous to health and can lead to hyperventilation.
- (5) Furthermore, the installation of flueless fireplaces does not require inspection by the relevant authorities.
- (6) It is therefore appropriate to determine the requirements needed to ensure that alcohol-powered flueless fireplaces satisfy the general safety requirement set out in Article 3 of Directive 2001/95/EC.
- (7) The measures provided for in this Decision are in accordance with the opinion of the Committee on general product safety,

⁽¹⁾ OJ L 11, 15.1.2002, p. 4.

⁽²⁾ Storesund A. K, Mai T. T. & Sesseng C, 2010, 'Ethanol-fuelled, flue-less fireplaces. An evaluation', SINTEF. http://nbl.sintef.no/publication/lists/docs/NBL_A09127.pdf

⁽³⁾ [http://www.sik.dk/content/download/5561/77087/version/1/file/Report+-+Bio+fireplaces+-+v5-3+\(2\).pdf](http://www.sik.dk/content/download/5561/77087/version/1/file/Report+-+Bio+fireplaces+-+v5-3+(2).pdf)

⁽⁴⁾ <http://www.cpsc.gov/CPSC/PUB/PREREL/prhtml11/11164.html>

HAS ADOPTED THIS DECISION:

Article 1

Definition

For the purposes of this Decision, the following definition shall apply:

'*Alcohol-powered flueless fireplace*' means an appliance which:

- (a) is designed to produce a decorative flame by burning alcohol, but is unsuitable for primary heating purposes;
and
- (b) is not designed to be connected to a flue.

Article 2

Scope

This Decision shall apply to all domestic flueless fireplaces and their accessories where these are intended for use indoors. Fireplaces with a fuel chamber volume below 0,2 l specifically designed for cooking food or keeping it warm do not fall within the scope of this Decision.

Article 3

Safety requirements

The specific safety requirements for alcohol-powered flueless fireplaces referred to in Article 1 to be met by European standards pursuant to Article 4 of Directive 2001/95/EC are set out in the Annex to this Decision.

Article 4

Entry into force

This Decision shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

Done at Brussels, 1 April 2015.

For the Commission
The President
Jean-Claude JUNCKER

ANNEX

SPECIFIC SAFETY REQUIREMENTS RELATING TO ALCOHOL-POWERED FLUELESS FIREPLACES**1.1. Construction and design requirements***General requirements*

Alcohol-powered flueless fireplaces for domestic use shall have a maximum fuel consumption corresponding to a thermal output of 4,5 kW.

Alcohol-powered flueless fireplaces shall be made from materials that are not malleable at the maximum permissible temperatures listed in the section 'Surface temperatures'. The materials shall display sufficient resistance to the prevalent thermal, mechanical and chemical conditions.

Where flame screens are used, their construction and attachment to the fireplace shall be such that they can withstand the temperatures to which they are exposed.

The use of decorative elements, e.g. ceramic wood or pebbles, is not permitted in the area of flame impingement.

Alcohol-powered flueless fireplaces shall be designed in such a way as to prevent accidental re-ignition and backfiring.

The combustion of fuels in alcohol-powered flueless fireplaces must not put human health at risk.

Alcohol-powered flueless fireplaces shall be designed in such a way as to prevent spilt fuel from accumulating in closed compartments inside the appliance, from where it could evaporate and cause an explosion.

The appliance shall be constructed in such a way as to avoid any leakage of fuel.

Stability

Unintentional movement or tilting of alcohol-powered flueless fireplaces during operation must not compromise safety.

Appliances on wheels shall be fitted with easy to operate lockable brakes.

Free-standing alcohol-powered flueless fireplaces shall be fitted with supports to prevent them from overturning and be subject to testing of their stability on impact. If the fireplace does not pass this test it shall be built in such a way that it remains safe at all times.

Fixed appliances shall also be subject to testing of their stability on impact. Wall hooks shall be built in such a way as to prevent the appliance being lifted off the hooks if unintentionally pushed upwards.

Fittings (e.g. wheels or handles) facilitating movement of the fireplace

Alcohol-powered flueless fireplaces with wheels and/or handles intended to allow them to be moved shall be designed in such way that the fire has to be extinguished before moving the fireplace.

Ignition

When igniting the alcohol-powered flueless fireplace the user shall be able to stay at a safe horizontal distance from the appliance. Alternatively, the alcohol-powered flueless fireplace shall be equipped with a safe built-in ignition device.

Operation when lit

The alcohol-powered flueless fireplace shall burn with a stable flame that does not produce soot. When lit, fuel consumption shall remain steady and there shall be no risk of burner runaway.

Extinguishing

The user shall be able to extinguish an alcohol-powered flueless fireplace safely at any time.

Re-ignition

The design of the alcohol-powered flueless fireplace shall make it possible to safely re-ignite the appliance even if the container is not full.

Preventing re-ignition when unsafe

It shall not be possible to reignite the alcohol-powered flueless fireplace until all parts of the appliance, including the burner, have reached a safe temperature of 60 °C or below. The instructions for use shall include information about the time it takes for the fireplace to cool down sufficiently to be safe to re-ignite, so that the user is not tempted to force re-ignition by tampering with the safety device preventing re-ignition at unsafe temperatures.

Filling and re-filling

The design of the alcohol powered flueless fireplace shall make filling and re-filling safe, and shall prevent the tank of the fireplace from being refilled while the fireplace is lit.

The instructions for use supplied with alcohol-powered flueless fireplaces shall inform users that the tank must not be filled during operation. This information shall be presented clearly and brought to users' attention. Additionally, the same information shall be conveyed by appropriate warning labels visibly displayed on the appliance itself.

Accessible surfaces

Providing the fireplace is installed according to the installation instructions given by the manufacturer, it shall not be possible for the user to accidentally come into contact with the flame, the burner or any other active or hot surface of the fireplace.

Surface temperatures

Accessible surfaces, with the exception of active surfaces, shall not reach unsafe temperatures when the alcohol-powered flueless fireplace is in operation.

The temperature increase (as measured from the starting temperature on ignition) of the surfaces that are not intended to be touched by the user when the fireplace is in use shall not exceed:

- 60 K for metal or metallic surfaces,
- 65 K for metal enamel surfaces,
- 80 K for glass and ceramic surfaces,
- 100 K for plastic surfaces, and
- 70 K for surfaces made of any other material.

The temperature increase (as measured from the starting temperature on ignition) of the surfaces that are intended to be touched by the user when the fireplace is in use, i.e. those that the user may need to touch in order to operate the fireplace, shall not exceed:

- 35 K for metal or metallic surfaces,
- 45 K for metal enamel and ceramic surfaces, and
- 60 K for surfaces made of plastic or other similar material.

These limits shall also apply to surfaces and the air space within 50 mm of the flame area.

Glass surfaces (e.g. screens) and their fixings which would reasonably be assumed to be hot due to their closeness to open flames are exempted from the above requirements.

At the point of contact with the floor or table, the temperature on the surface of the fireplace stand shall not exceed the room temperature by more than 65 K.

In addition to the requirement of not exceeding the room temperature by more than 65 K, the maximum temperature, which cannot be exceeded in any circumstances, is set as follows: at the point of contact with the floor or table, the temperature of the fireplace stand shall not exceed 85 °C, irrespective of the room temperature.

The surface temperature on adjacent walls shall not exceed the room temperature by more than 65 K and shall never exceed 85 °C.

Temperature limits for handles and knobs intended to be used by the owner in the normal course of operating the fireplace need to be set in accordance with suitable guidance documents, such as Cenelec Guide 29, according to the materials from which they are made. The temperature limits for these parts of the fireplace are lower than the abovementioned temperatures.

Fuel container and fuel system

The maximum fuel capacity of the appliance shall be limited according to the risk of fire and explosion.

The standard shall require that all tests are carried out with the fuel tank filled to the capacity that is potentially most dangerous in that particular situation.

The fuel container shall be constructed so as to prevent any leakage. Spillage or overfilling shall not compromise the safety of the appliance.

The fuel system, including any seals, shall have sufficient mechanical strength to withstand the strains caused by expected normal usage. It shall have sufficient resistance to corrosion to withstand the long-term effects of exposure to the fuel used. The design of the burner shall prevent corrosion occurring.

Child safety

The alcohol-powered flueless fireplace shall be designed to prevent children from coming into contact with the fuel and/or the flame.

1.2. Equipment and fittings for installation of the fireplace

Mounting systems

Mounting systems supplied with the alcohol-powered flueless fireplace shall have sufficient mechanical strength and resistance to high temperatures to support the fireplace safely during its expected lifetime.

If the appliance is designed to be fixed to the floor, the wall or the ceiling, the system for fixing/mounting it shall be designed so as to prevent the appliance from coming loose accidentally.

Wall plugs and fittings

If supplied with the alcohol-powered flueless fireplace, wall plugs and fittings shall be of appropriate long-term mechanical strength and thermal properties.

The user manual shall warn the user to use only the supplied wall plugs and fittings or wall plugs and fittings with the appropriate mechanical strength and thermal properties.

1.3. Auxiliary equipment

Equipment for the safe ignition and safe extinction of the fireplace shall be installed or supplied with the appliance.

1.4. Emissions

Alcohol-powered flueless fireplaces shall be constructed in such a way as to avoid any risk to human health which may arise from combustion or other emissions through inherently safe design and construction, or where this is not possible by adequate protection measures, including alarms, or information to users.

The standard should address in particular:

- carbon monoxide and carbon dioxide (CO, CO₂),
- nitrogen oxides such as NO, NO₂ and NO_x,

- aldehydes such as formaldehyde,
- volatile organic compounds (VOCs),
- aromatic hydrocarbons such as benzene and polycyclic aromatic hydrocarbons (PAHs),
- soot and other particle emissions,
- emissions from unburnt fuel, and
- any other emissions that may be relevant.

The standard provisions regarding carbon monoxide and nitrogen oxides shall reflect the latest version of the World Health Organisation (WHO) guidelines 'WHO guidelines for indoor air quality: selected pollutants' ⁽¹⁾ and Environmental Health Criteria (EHC) ⁽²⁾.

The standard provisions regarding carbon dioxide shall reflect Commission Directive 2006/15/EC ⁽³⁾.

1.5. Safety information, user manual and identification of the manufacturer and importer

General

Safety information, together with the names of the manufacturer and the importer, shall be displayed on the alcohol-powered flueless fireplace or on its packaging, or included in the instructions for use.

The standard shall state precisely which safety instructions must be displayed on the product itself and which warnings and instructions can be included in the instructions for use or displayed on the packaging.

The information shall be given in the language(s) of the country in which the fireplace is offered for retail sale. The information shall be presented in one continuous section in each language and shall not be interrupted by other text. Additional text given in another language shall not distract from the required information.

The information appearing on the fireplace shall be visible, legible and indelible, being either written on a permanent label or imprinted directly on the appliance.

Safety information

Safety information shall be conspicuously displayed and clearly communicated in the instructions for use or on the packaging and, if indicated in the standard, on the alcohol-powered flueless fireplace. This information shall include at least the following:

- 'Use only the types and quantities of fuel specified in the guidelines in the user manual.'
- 'Only use in a well-ventilated room.'
- 'Never pour fuel into the appliance when in operation or still hot.'
- 'Never overfill the fuel container and carefully wipe away any spilt fuel before igniting the appliance.'
- 'Only use in a place free of draughts.'
- 'Never ignite a hot appliance.'
- 'Never move the appliance while it is in operation.'
- 'Never leave small children or pets unattended near a lit fireplace.'
- 'Install, use and maintain only in accordance with the manufacturer's instructions.'

Appliances fitted with wheels shall also include the following instruction: 'Always lock the brakes before using the fireplace.'

In addition, the minimum safe distance at which the fireplace may be placed from flammable materials shall be indicated.

⁽¹⁾ World Health Organisation, 2010: <http://www.euro.who.int/en/health-topics/environment-and-health/air-quality/publications/2010/who-guidelines-for-indoor-air-quality-selected-pollutants>

⁽²⁾ http://www.who.int/ipcs/publications/ehc/ehc_alphabetical/en/index.html

⁽³⁾ Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC (OJ L 38, 9.2.2006, p. 36).

Users shall also be informed of the labelling conventions for fuels, and specifically the information on the properties of the different fuels conveyed by their labelling.

The written safety information may be accompanied by suitable pictograms, where allowed for in the standard.

User manual

The alcohol-powered flueless fireplace shall be supplied with a user manual, which shall include the following information:

- the required (minimum) distance from the burning chamber at which a device for igniting the alcohol-powered flueless fireplace may be installed,
- required characteristics of the wall (or other structure) for wall-mounting an alcohol-powered flueless fireplace, including instructions regarding appropriate air slots for heat ventilation,
- requirements relating to the fixtures used for attaching wall-mounted alcohol-powered flueless fireplaces (and free-standing fireplaces where relevant),
- requirements relating to the positioning and structural surroundings of the free-standing alcohol-powered flueless fireplace, in particular the floor, and ceiling where relevant, and
- requirements relating to the wall on which an alcohol-powered flueless fireplace is to be mounted, including specific mention of wall types where particular care is to be exercised, e.g. gypsum walls or wooden walls.

Additionally, the user manual shall provide information on:

- the type(s) of fuel that may be used, and additives allowed in that fuel, to ensure that the alcohol-powered flueless fireplace burns safely and that the maximum emissions are not exceeded,
- the required ventilation of the room,
- the minimum safe distance from flammable materials at which the fireplace may be placed, and
- the minimum size of the room or minimum floor area.

Furthermore, the user manual shall:

- explain how to introduce fuel into the alcohol-powered flueless fireplace (and warn users not to pour fuel into a hot fireplace),
- explain how to safely store fuel and indicate the indoor storage limits imposed by national and/or regional legislation in the country where the appliance is marketed,
- explain how to extinguish an alcohol-powered flueless fireplace,
- provide information about appropriate fire extinguishing equipment and recommend that such equipment be located near the fireplace,
- warn against using the alcohol-powered flueless fireplace in a draughty environment,
- give instructions for safely igniting and re-igniting the fireplace,
- warn against igniting a hot alcohol-powered flueless fireplace, and
- instruct users never to move an alcohol-powered flueless fireplace while in use, and, if the fireplace is fitted with wheels, to lock the brakes when using the appliance.

Identification of the manufacturer and importer

Manufacturers ⁽⁴⁾ shall indicate their name, registered trade name or registered trade mark and the address at which they can be contacted on the alcohol-powered flueless fireplace itself or on its packaging and in a document accompanying the fireplace.

⁽⁴⁾ As defined in Article R1 of Chapter R1 of Annex I to Decision No 768/2008/EC of the European Parliament and of the Council of 9 July 2008 on a common framework for the marketing of products, and repealing Council Decision 93/465/EEC (OJ L 218, 13.8.2008, p. 82).

They shall also affix information enabling identification of the product (serial or batch number) on the product itself.

Importers ⁽³⁾ shall indicate their name, registered trade name or registered trade mark and the address at which they can be contacted on the alcohol-powered flueless fireplace itself or on its packaging and in a document accompanying the fireplace. In cases where the importer would have to open the packaging only for the purpose of putting this required information on the product itself, it is sufficient to indicate the name, registered trade name or registered trade mark and the address at which they can be contacted on the packaging or in a document accompanying the fireplace.

⁽³⁾ See footnote 4.