



TEST REPORT
ASTM F3363-19
Standard Specification for
Unvented Liquid/Gel Fuel-Burning Portable Devices

Report Number: EBSZ240104015S-R1
This report cancels and replaces previous report EBSZ240104015S dated on 2024-Jan-10

Tested by (name + signature): Jack Luo



Approved by (name + signature) ..: Tommy Wei

Total number of pages.....: 12

Date of issue: 2024-Jan-22

Testing Laboratory preparing the Report.....: Europe Ber (Guangdong) Testing Co., Ltd.
401 and 402, Building A, Tangxi Zhigu, No.21 Xijing Road, Gushu Community, Xixiang Street, Baoan District, Shenzhen

Applicant's name.....: Zhongshan Guanghui Lighting Technology Co., Ltd
Address: Floor 1, Building 1, No. 4, Xingui Street, Wusha Industrial Zone, Henglan Town, Zhongshan

Test specification:
Standard: ASTM F3363-19-2019
Test procedure: Test report only.
Non-standard test method.....: N/A

Test Report Form No.....: ASTM F3363-19_trf
Test Report Form(s) Originator: EurBer
Master TRF.....: Dated 2023-06

General disclaimer:
The test results presented in this report relate only to the object tested.
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Test item description: Alcohol fireplace
Trade Mark: --
Manufacturer.....: Zhongshan Guanghui Lighting Technology Co., Ltd
Floor 1, Building 1, No. 4, Xingui Street, Wusha Industrial Zone, Henglan Town, Zhongshan
Model/Type reference: Black002, White002, Black001, White001
Technical data: --

All the modifications applied in this document are identified by a vertical line on the left at the place where information has been modified regarding to the previous edition of the document.

Marking

Alcohol fireplace

Model: Black002



DDMMYY

Made in China

Zhongshan Guanghui Lighting Technology Co., Ltd

Marking for all models are in the same design except for type designation.
Above marking plate for representing the other model.



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Possible test case verdicts:

- test case does not apply to the test object.....: N/A
- test object does meet the requirement: P (Pass)
- test object does not meet the requirement.....: F (Fail)

Testing

Date of receipt of test item: 2024-Jan-04

Date (s) of performance of tests.....: 2024-Jan-[04-09]

General remarks:

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.

"(see Enclosure #)" refers to additional information appended to the report.

"(see appended table)" refers to a table appended to the report.

Throughout this report a comma / point is used as the decimal separator.

Note: This report is issued for updating pictures for equipment under tests on page 11.

General product information:

Alcohol fireplace intended for indoor use.

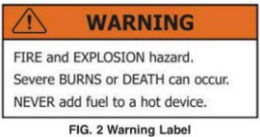
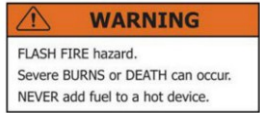
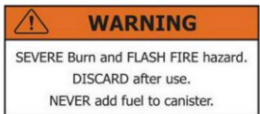
All models are identical to each other except the color and size.

ASTM F3363-19			
Clause	Requirement - Test	Result - Remark	Verdict
1	Scope		—
2	Referenced Documents		—
3	Terminology		—
4	Requirements		—
4.1	General Requirements:		P
4.1.1	When tested in accordance to 5.1, water shall not be able to accumulate in any location in the device that is intended to support or hold a fuel burning feature, except:		P
4.1.1.1	If the device only uses pourable combustible liquid, is labeled accordingly, and the device has a fuel burning feature with a non-removable wick.		P
4.1.1.2	If the device sustains a flame apart from the refueling area, the refueling area is a separate location from the flame and at least a distance of 7.5 cm (3 in.)		N/A
4.1.2	Devices shall be made of noncombustible material, or combustible materials with a physical barrier or other technology that completely prevents the flame from coming into contact with the combustible materials.		P
4.1.3	The device shall be supplied with a means of completely covering the fuel surface such that the flame will permanently extinguish within 10seconds.		P
4.2	Devices labeled or intended for use indoors when tested in accordance to 5.2:		P
4.2.1	Shall have a room dry oxygen concentration at or above 19.5 V% for the duration of the test.		P
4.2.2	Shall have a room carbon monoxide concentration at or below 50 ppm for the duration of the test.		P
4.3	All devices when tested in accordance to the Static Stability test, 5.3:		P
4.3.1	Shall not tip over in any position tested		P
4.3.2	Shall not spill liquid in any position tested.		P
5	Test Methods		—
5.1	Liquid Accumulation Test:		N/A
5.1.1	Test Summary-Water is poured in all locations of the device that would typically hold a flame. This test evaluates whether the device can accumulate fluids.		N/A
5.1.2	Hazards (reserved)		N/A
5.1.3	Apparatus		N/A
5.1.3.1	A means of pouring water.		N/A
5.1.3.2	A leveled and permeable surface.		N/A

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Clause	Requirement - Test	Result - Remark	Verdict
5.1.3.3	A collector basin.		N/A
5.1.3.4	A method to measure water quantity		N/A
5.1.4	Procedure:		N/A
5.1.4.1	In accordance to the manufacturer's instructions, place the device on a leveled and permeable surface.		N/A
5.1.4.2	Place a sufficiently large collector basin below the device and permeable surface.		N/A
5.1.4.3	Identify all fuel burning areas, locations in the device intended to support a fuel burning feature		N/A
5.1.4.4	Select one of the locations identified in 5.1.4.3		N/A
5.1.4.5	Determine the amount of water to pour by using a volume equivalent to the manufacturer's maximum recommended reservoir fuel volume		N/A
5.1.4.6	Pour the water into the selected fuel burning area.		N/A
5.1.4.7	Wait 30 seconds and measure the amount of water in the basin.		N/A
5.1.4.8	Repeat 5.1.4.5 to 5.1.4.7 until all identified locations in 5.1.4.3 are tested.		N/A
5.1.5	Calculation of results		N/A
	The device is considered to accumulate water is less than 85% of the water accumulates in the basin after pouring into any fuel burning area.		N/A
5.2	Indoor Usage Test:		P
5.2.1	Test Summary-The device is placed in a sealed room and operated until the fuel is completely combusted. The dry oxygen and carbon monoxide concentrations are monitored at three locations and averaged together.		P
5.2.2	Hazards-Warning-There is an inherent risk when working with and around open flames and in the presence of products of combustion.		P
5.2.2.1	Use appropriate personal protective equipment.		P
5.2.2.2	Ensure the flame is out and the fuel burning feature is cool before refuelling the device.		P
5.2.2.3	Keep fire suppression equipment capable of mitigating the potential fire situations readily available.		P
5.2.2.4	Only enter confined spaces with products of combustion after the confined space has been fully ventilated and the air is safe to breathe.		P
5.2.2.5	When pouring flammable liquids from closed necked containers, use flame mitigation devices to reduce the risk of flame jetting.		P
5.2.2.6	Use appropriate equipment for monitoring enclosed spaces before entry.		P

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Clause	Requirement - Test	Result - Remark	Verdict
5.2.3	Apparatus		P
5.2.3.1	A rectangular room with a volume of 28.3 ± 0.3 m (1000 +10 ft) with each dimension a minimum of 2.4 m (7 ft 10 in.) that is capable of being reasonably sealed thereby preventing infiltration of air.		P
5.2.3.2	A door to the room allowing test personnel to easily access the room but capable of being closed, allowing the room to be reasonably sealed thereby preventing infiltration of air.		P
5.2.3.3	Three gas sampling locations capable of extracting gas samples for concentration measurements. Locate a gas sample in a high corner of the room, between 20 cm (73/ in.) and 40 cm (1534 in.) from each surface. Locate the second gas sample in the opposite, lower corner of the room, between 20 cm (73% in.) and 40 cm (153 in.) from each surface. Locate the third gas sample at the same height as the device and between 20 cm (73 in.) and 40 cm (153 in.) horizontally away. Measure gas samples continuously at a minimum of 1 Hz.		P
5.2.3.4	A means to securely transport gases from the sampling locations to the analysers.		P
5.2.3.5	An oxygen analyser with an accuracy of at least 0.2 V% that reports a dry oxygen concentration or a means to remove water from the sample prior to this measurement.		P
5.2.3.6	A carbon monoxide analyzer with an accuracy of at least 10 ppm.		P
5.2.3.7	A temperature measurement device with an accuracy of at least ±3°C (5.4F).		P
5.2.3.8	A relative humidity measurement device with an accuracy of at least +5 % RH		P
5.2.3.9	A table or similar apparatus to locate the device on, at least 50 cm (195s in.) from the floor and 100 cm (393s in.) from the ceiling.		P
5.2.3.10	A fan inside the room, able to be switched on remotely, with demonstrated capability of thoroughly mixing the sealed room within S minutes such that all the measured concentration changes of dry oxygen are within 20 % of each other after a fire test.		P
5.2.4	Procedure:		P
5.2.4.1	Ensure that the room temperature is between 15°C (59°F) and 30°C (86°F) and that the room relative humidity is between 25 % RH and 75 % RH.		P
5.2.4.2	Take baseline dry oxygen and carbon monoxide measurements for at least 5 continuous minutes.		P

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5.2.4.3	Do not test if the temperature or relative humidity is out of range, if the dry oxygen concentration is not at an ambient concentration of 20.9 V% - 0.1 V%, or if the carbon monoxide concentration is at or above 30 ppm.		P
5.2.4.4	Place the device in the center of the room at a height of at least 50 cm (195/s in.) from the floor and at least 100 cm (393/8 in.) below the ceiling		P
5.2.4.5	Fuel the device according to the manufacturer's instructions to either the maximum fill level or with the largest non-refillable canister the device will accept.		P
5.2.4.6	Ignite the fuel and seal the room by closing the door.		P
5.2.4.7	Burn the fuel until it is completely combusted. NoTE 4-Do not enter the room. Acceptable ways to determine if the fuel is completely combusted include temperature measurements, visible or IR video monitoring, and weight measurements.		P
5.2.4.8	Once fuel is completely combusted, turn the fan on inside the room, leaving the room sealed and the fan on.		P
5.2.4.9	Five minutes after the fan is turned on, continuously sample the atmosphere at the three, gas sample locations		P
5.2.4.10	Continue to sample atmosphere until 15 minutes after the fan is turned on.		P
5.2.5	Calculation of Results.		P
5.2.5.1	Average then report as a single measurement the three dry oxygen concentrations measured 5 minutes after the fan is turned on until 15 minutes after the fan is turned on.		P
5.2.5.2	Average then report as a single measurement the three carbon monoxide concentrations measured 5 minutes after the fan is turned on until S minutes after the fan is turned on.		P
5.3	Procedure:		P
5.3.1	Summary-Test the device on a minimum 20.0° incline for stability.		P
5.3.2	Apparatus		P
5.3.2.1	An inclined plane, either fixed or adjustable, capable of achieving a minimum of 20.0° from level. The plane shall have a stop to help prevent the device from slipping during this test. When a stop is used, the stop's maximum height must not exceed 6.4 mm (0.25 in.). (Fig.1.)		P
5.3.3	Procedure:		P
5.3.3.1	Fill the device based on the type of fuel-burning feature installed within the device:		—

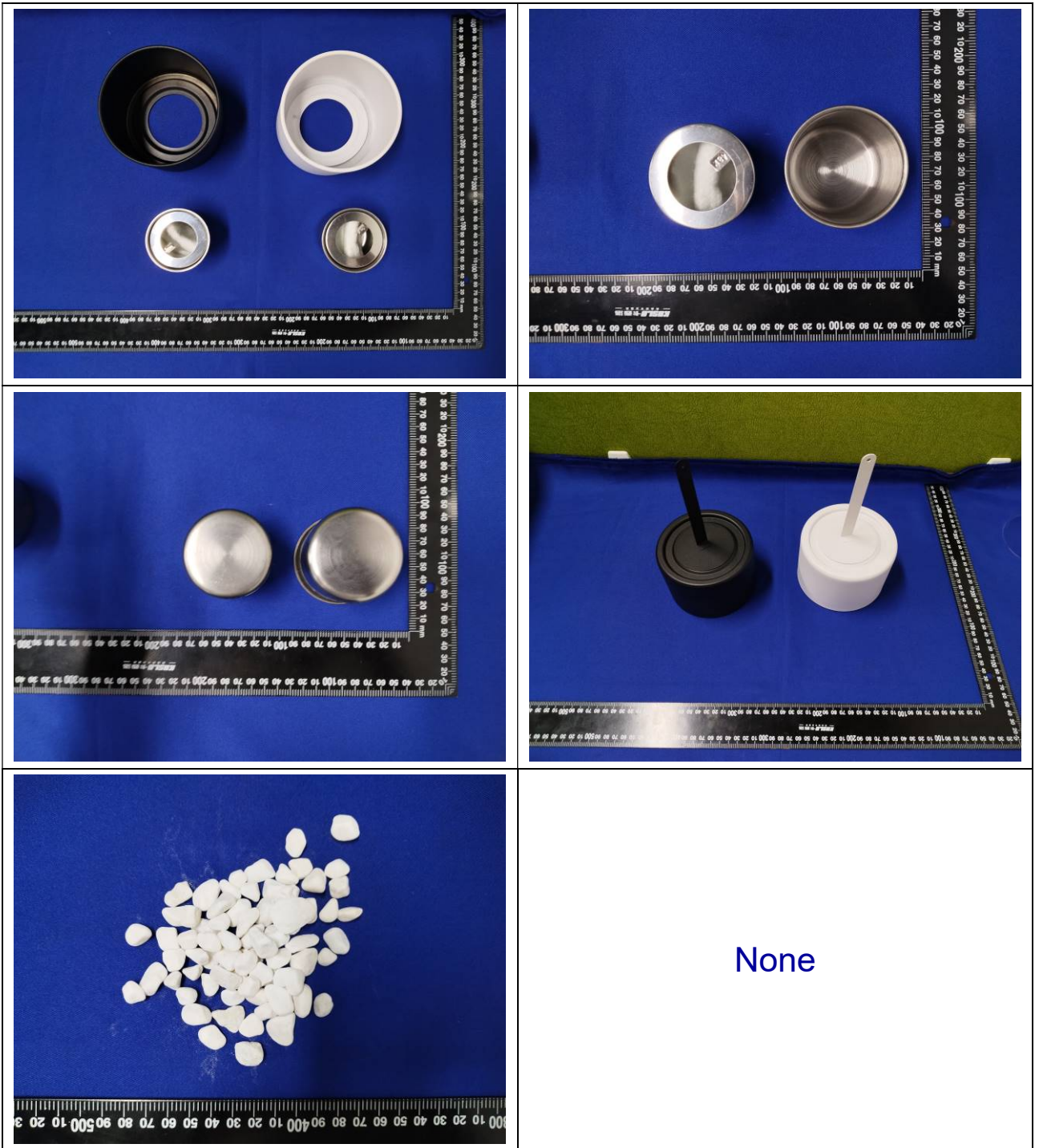
ASTM F3363-19			
Clause	Requirement - Test	Result - Remark	Verdict
	(1) For devices that use integral combustible fuel reservoirs with wicks, fill the fuel reservoirs with water or fuel to a level as instructed in the manual or permanent maximum fill line. In the absence of a specific filling instruction, fill until the water or fuel surface reaches the top of the reservoir		P
	(2) For devices that use disposable canisters, install an unused, unopened disposable canister in the device according to the manufacturer's instruction. If the manufacturer's instruction does not specify a fuel container, use the largest available size, unused disposable canister that fits within the device.		P
5.3.3.2	Place the filled device on an incline apparatus at a minimum of 20.0o from level for a minimum of 10 seconds. See fig.1.		P
5.3.3.3	If the device is asymmetrical, rotate the device around the device's vertical axis while the device is on the incline apparatus and wait for a minimum of 10 seconds at each position.		P
5.3.4	Calculation of Results:		P
5.3.4.1	Record and report if the device tips over or becomes unstable at any position tested.		P
5.3.4.2	Record and report if the device spills fuels at any position tested.		P
6	Labeling		—
6.1	Warning Label Content:		P
6.1.1	Each device must contain the label in Fig. 2.		P
6.1.2	Each refillable canister with a wick must contain the warning label in Fig. 3.		P
6.1.3	Each non-refillable canister to be used with a device must contain the warning label in Fig. 4.		P
6.1.4	Devices with integral fuel reservoirs with wicks must contain the following warning that specifies the type of combustible liquid fuel that will be used with the device: WARNING only use (manufacturer to insert the type of fuel, such as brand name, model name, or number) to avoid flash fire.		N/A
6.1.5	Warning Label Size and Placement:		P

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6.1.5.1	The warning label must be in contrasting color (s), permanent, conspicuous, and in sans serif style font. A conspicuous label is visible when the unit is in the manufacturer's recommended use position to a person standing near the unit but not necessarily visible from all positions. The safety alert symbol (an equilateral triangle surrounding an exclamation point) and the word "WARNING" must be at least 5 mm (0.2 in.) high. The remainder of the text must be characters whose upper case must be at least 2.5 mm (0.1 in.) high		P
6.1.6	Permanency of Label Warning:		—
6.1.6.1	Warning labels must withstand manufacturer specified indoor and outdoor use conditions, including expected surface temperature and weather. Warning labels, whether paper or non-paper, must be permanent when tested in accordance with the warning label test procedure below. In addition, the warning label must remain attached and readable if exposed to the supplied fuel contents of the canister intended to be used with the device		P
6.1.7	Warning Label Test Procedure:		—
6.1.7.1	Type of Labels: (1) A paper label will be considered permanent if, during an attempt to remove it without the aid of tools or solvents, the label cannot be removed, the label tears into pieces upon removal, or such action damages the surface to which the label is attached.		P
	(2) A non-paper label will be considered permanent if, during an attempt to remove it without the aid of tools or solvents, the label cannot be removed or such action damages the surface to which the label is attached.		P
6.1.8	Simulated Use and Storage Conditions:		P
6.1.8.1	A label will be considered permanent if, during a procedure that simulates the use and storage conditions of the product, it cannot be removed or such action damages the surface to which the label is attached.		P
6.1.9	Instructional Literature		P
6.1.9.1	Devices, refillable canisters with wicks, and nonrefillable canisters, must be accompanied by instructions. These instructions must include assembly, maintenance, cleaning, and operating information. Instructional literature must bear the applicable warning label required by this specification.		P

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Clause	Requirement - Test	Result - Remark	Verdict
6.1.9.2	Devices intended to be used with non-refillable canisters or refillable canisters with wicks must have a statement that specifies the canister size. The instructions must advise that the device always be placed on a stable and level surface. The instructions must advise that a lit device should never be unattended and must be kept away from objects that can catch fire. The instructions must also advise that the device should be kept away from children.		P
6.1.9.3	Warning statements within the instructional literature: (1) In warning statements, the symbol "A" and the word "WARNING" must not be less than 5 mm (0.2 in.) high. The remainder of the text must be in characters whose upper case must be at least 2.5 mm (0.1 in.) high.		P
	(2) For devices intended to be used with refillable canisters with wick, the instructional literature must contain the following warning that specifies the type of combustible liquid fuel that will be used with the device: A WARNING only use (manufacturer to insert the type of fuel such as brand name, model name, or number) to avoid flash fire.		P
7	Keywords		—
7.1	carbon monoxide production; combustible liquid fuel; decorative fireplace; ethanol burner; fire pot; fire test; flame mitigation device; flammable liquid fuel; indoor usage test; indoor use; non-refillable canister; oxygen reduction; portable fireplace; stability test; table top fireplace		P
Appendix	(Nonmandatory Information)		—
X.1	Exclusion of closed reservoirs		N/A
X.1.1	This specification is intended to address portable appliances that are intended to be or could be fueled by pouring a flammable liquid in the presence of an open flame. Refillable oil lamps and torches have an enclosed reservoir that works with a wick; the task group believes a user would most likely not be pouring flammable liquids into the reservoir while and near a burning wick in these type of devices. (See 1.2.4.)		N/A

Appendix: Photos of unit





---END OF TEST REPORT---