Eco Mark Product Category No. 146

“Vacuum Bottle Version1.2”

Certification Criteria

- Applicable Scope-

Vacuum bottles for table top use, portable vacuum bottles, lunch jar, and heat-retention cookers that have a vacuum heat insulating structure. This shall exclude those using electricity, gas, oil, and other energy for heat retention/cold retention.

Established: September 1, 2010
Expiration Date: August 31. 2017

Japan Environment Association
Eco Mark Office

NOTE: This document is a translation of the criteria written in Japanese. In the event of dispute, the original document should be taken as authoritative.

Eco Mark Product Category No.146

“Vacuum Bottles Version1.2” Certification Criteria

Japan Environment Association
Eco Mark Office

1. Purpose of Establishing Criteria

Omitted

2. Applicable Scope

The certification criteria shall apply to vacuum bottles for table top use, portable vacuum bottles, lunch jar, and heat-retention cookers that have a vacuum heat insulating structure. However, this shall exclude those using electricity, gas, oil, and other energy for heat retention/cold retention.

3. Terminology

Table-top vacuum bottles	A heat retaining liquid container that uses a vacuum double bottle made of glass or stainless steel and that is mainly used indoors. Table-top vacuum bottles include “Handy Pot” vacuum bottle that is used by lifting the main body with the handle attached thereto to directly pour liquid, and “Air Pot” pump vacuum bottle that ejects liquid therein by pressing a pushbutton or lever to compress bellows, etc., thereby increasing the pressure inside the container.
Portable vacuum bottles	A heat retaining liquid container that uses a vacuum double bottle made of glass or stainless steel and that is mainly carried outdoors as a container for drinking water. The portable vacuum bottles include “Bottle” type from which a user pours liquid to an attached cup to drink, etc., “Mug” type having a beak, from which a user can drink directly, on the upper part of the container, and “Bottle Only for Cold Storage”.
Lunch jar	A food container that uses a vacuum double jar made of

	glass or stainless steel and can keep warm rice or side dishes, soup, etc.
Heat-retention cooker	Solid ingredients are put in a cooking pot and heated. Heating is stopped when adequate temperatures are reached, and then the food is transferred to a vacuum double container made of stainless-steel. A heat-retention cooker is designed to keep food warm and continue to cook with remaining heat.
Capacity	●Table-top vacuum bottle and portable vacuum bottle Actual capacity of what can be actually contained (in liters) when the inner stopper attached to the product is put. ●Lunch jar Capacity (in liters) subjected to volume reduction of containers such as a rice container, side dish container, soup container, etc. ●Heat-retention cooker Capacity when liquid fills the cooking pot to the edge thereof, or actual capacity of the heat retaining container (in liters)
Expendable part	A part that is assumed to be replaced due to aging degradation, etc. caused by use of the product. In this product category, it shall refer to parts and other accessories listed below: ●Table-top vacuum bottle Inner stopper, inner stopper rubber (packing), pumping pipe ●Portable vacuum bottle Inner stopper, inner stopper rubber (packing) ●Lunch jar Packing of a rice container, side dish container, soup container, etc. ●Heat-retention cooker Nothing in particular specified.
Plastic	Materials made of single or multiple polymers, additives, fillers, etc. added to give characteristics.

Polymer	Macromolecules which are the main components of plastic
Heat-retaining/cold-retaining effect	The heat-retaining effect by a testing method specified in JIS S2006 “Vacuum bottles” and JIS S2053 “Stainless steel vacuum bottles”

4. Certification Criteria and Certification Procedure

To show conformance to each criteria item, the respective Attached Certificates shall be submitted.

4-1. Environmental Criteria and Certification Procedure

(1) In manufacturing the applied product, related environmental laws and regulations and pollution control agreement (hereinafter referred to as the “Environmental Laws, etc.”) must be followed with respect to air pollution, water contamination, noise, offensive odor, and emission of hazardous materials in the area where the plant performing the final manufacturing process is located.
In addition, the state of compliance with the Environmental Laws, etc. for the last five years from the date of application (whether there is any violation) must be reported. If there is any violation, it is necessary that proper remedies and preventive measures have been already taken, and the related Environmental Laws, etc. must thereafter be followed appropriately.

[Certification Procedure]
With respect to the compliance with the Environmental Laws, etc. in the area where the plant performing the final manufacturing process is located, a certificate issued by the representative of the business of manufacturing the applied product or the manager of the relevant plant (entry or attachment of the list of names of the Environmental Laws, etc.) must be submitted.
In addition, it is necessary to report whether there is any violation during the last five years, including a violation subject to administrative punishment or administrative guidance, and if there is, the following documents in a and b must be submitted:

a. With respect to the fact of violation, guidance documents from administrative agencies (including order of correction and warning) and copies of written answers (including those reporting causes and results of correction) to such documents (making a series of progress clear);

b. Following materials (copies of recording documents, and so on) concerning the management system for compliance with the Environmental Laws, etc. in 1)-5):

1) List of the Environmental Laws, etc. related to the area where the plant is located;

2) Implementation system (organizational chart with entry of roles, etc.);

3) Document stipulating retention of recording documents;

4) Recurrence prevention measures (future preventive measures);

5) State of implementation based on recurrence prevention measures (result of checking of the state of compliance, including the result of onsite inspection).

(8) A metal material to be used in the product shall conform to 2 or more items of the following a to d on the selection of materials:

a. A metal material shall be composed of general components in Japan so that it will not interfere with recycling to a material of same system after use.

b. Consumption of rare metals (31 kinds of minerals defined in the Special Subcommittee on Rare Metal General Strategy, Mining Industry Council, Ministry of Economy, Trade and Industry) shall be minimized (For chemical composition of a metal material, the product shall conform to the relevant JIS).

c. Different alloy types (such as SUS304 and SUS316), sorting of which is difficult, shall not be used in combination in the product (However, this item shall not apply to the heat-retention cooker).

d. It shall be possible to separate a metal part from other materials in the product, without using any special tool, etc. (except surface treatment).

[Certification Procedure]

The Applicant shall enter necessary items in the Exhibit “Checklist on Metal Materials” and submit it together with necessary documents.

(3) Plastic materials (In this item, plastic materials shall refer to resin itself, and not apply to coloring materials or fluororesin treatment.) used for the product shall not contain any halogens in its polymer backbone as prescription constituents.

[Certification Procedure]

For plastic materials to be used in the product, the Applicant shall state in the Attached Certificate whether any halogen element is added or not to polymer

backbone.

(4) Product packaging shall give consideration to resource saving, and easiness in reuse or recycling. Specifically, the packaging shall be a minimum required for protecting products during transportation/storage, and it shall be possible to sort packages by the material, without using any tool, etc. when they are disposed. Plastic materials to be used in packaging shall have no halogen element added to polymer backbone as a prescribed constituent. In addition, product packaging shall refer to one sales unit to an end-consumer.

[Certification Procedure]
Attached certificate stating compliance with this item shall be submitted with materials describing the packaging condition of the product and packaging materials (such as packaging specifications, etc.).

(5) A system for a long-term use of the product shall be prepared. To be specific, as a supply period of an expendable part described in "3. Terminology", during which users can exchange, at least 5 years shall be ensured after end of production of the applied product. In addition, information to this extent shall be disseminated.

[Certification Procedure]
A document providing users with the information that as a supply period of an expendable part, at least 5 years shall be ensured after end of production of the applied product and informing them of a method for placing an order for the expendable part (instruction manual, catalog, etc.) shall be submitted.

(6) In order to contribute to reduction of energy needed to re-boil water or a lower frequency of opening/closing a refrigerator, the product shall have a high heat-retaining performance. To be specific, the heat-retaining/cold-retaining effect of the product shall conform to a reference value in Table 1 for every actual capacity of the product.

Table 1 Standard of Heat-retaining/Cold-retaining Effect

Applicable products	Untouched for		<0.4L	0.4L≤ <0.5L	0.5L≤ <1.0L	1.0L≤ <2.0L	2.0L≤
Table-top vacuum bottles	10 hours	heat-retention			54℃≤	62℃≤	69℃≤
		cold-retention			≤12℃	≤11℃	≤10℃
Portable	6 hours	heat-retention	51℃≤	60℃≤	71℃≤	74℃≤	77℃≤

vacuum bottles		cold-retention	≤13℃	≤11℃	≤10℃	≤9℃	≤9℃
Lunch jar	6 hours	heat-retention	45℃≤	51℃≤	59℃≤	64℃≤	70℃≤
Heat-retention cooker	6 hours	heat-retention				60℃≤	

Heat-retaining effect [°C] … At room temperature of 20°C±2°C, leave the product with the stopper removed for two hours or longer. Then, pour boiled water to the low edge of the inner stopper. When temperature of the boiled water drops to 95°C±1°C, put the inner stopper attached to the product. The heat-retaining effect refers to temperature of the water when the product is thereafter left for a predetermined period of time.

Cold-retaining effect [°C] … At room temperature of 20°C±2°C, fill the product with cold water to the low edge of the stopper and place it vertically. The cold-retaining effect refers to temperature of the water after it has been left for a predetermined period of time after the water temperature reaches 4°C±1°C.

[Certification Procedure]
For Heat-retaining/Cold-retaining Effect, the results of tests conducted by an own company or a third party testing organization shall be submitted.

(7) Any part of the product that will be in contact with content shall conform to an elution test for cadmium and lead as defined in the Food Sanitation Act

[Certification Procedure]
The test results in accordance with the Food Sanitation Law with respect to the elution of the relevant substances from the product shall be submitted.

(8) For a heat-retention cooker, information on the heat-retaining cooking time for each representative dish and efficient heat-retaining cooking method shall be provided by means of an instruction manual supplied with the product.

[Certification Procedure]
For a heat-retention cooker, information on the heat-retaining cooking time for each representative dish and efficient heat-retaining cooking method shall be provided by means of an instruction manual supplied with the product.

4-2. Quality Criteria and Certification Procedure

(1) Portable and table-top vacuum bottles and lunch jar, which use a vacuum double bottle made of glass, shall conform to JIS S2006 “Vacuum bottles”, and a portable vacuum bottle, whose inner bottle is made of stainless steel and which uses a vacuum double bottle, shall conform to JIS S2053 “Stainless steel vacuum bottles”. Any product other than those mentioned above shall conform to the voluntary

standard of the industry (SV standard defined by the National Vacuum Flask Industry Association: “Standard for Ensuring safety of Vacuum Flasks”).
In addition, the descriptive labeling of glass made table-top vacuum bottles and stainless steel made portable vacuum bottles shall follow Miscellaneous Manufactured Goods Quality Labeling Rules – Household Goods Quality Labeling Act.

[Certification Procedure]
The applicant shall submit a certificate stating that the product conforms to the relevant quality standard. For glass made table-top vacuum bottles and stainless steel made portable vacuum bottles, the applicant shall submit photographs or specifications that enable confirmation of content of the descriptive labeling, together.

5. Considerations

In the process of manufacturing products, it is desirable to consider the following, although they are not requirements for certification

(1) A metal material to be used in the product shall not have any element (e.g., copper or tin in a steel material (rolling material)), which will interfere with recycling to a same material after use, as a construction material (including plating and coating). Or, it can be separated easily.

6. Product Classification, Indication and Others

Omitted

Established: September 1, 2010 (Version1.0)
Revised: March 1, 2011 (Version1.1)
Revised: July 13, 2012 (Version1.2)
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The Certification Criteria for the Product Category will be revised when necessary.