

Eco Mark Product Category No.157

“Faucets Version1.0”

Certification Criteria

- Applicable Scope-

- A. Faucet with built-in water-saving disc
- B. Faucet with built-in constant flow regulating valve
- C. Faucet with aerator function
- D. Faucet with time-control mechanism
- E. Faucet with volume-control mechanism
- F. Automatic faucet (with self-generation function)
- G. Automatic faucet (AC100V type)
- H. Hot water-saving faucet (Hot water-saving A1)
- I. Hot water-saving faucet (Hot water-saving B1)
- J. Hot water-saving faucet (Hot water-saving C1)

Established: January 1, 2016
Expiration Date: December 31, 2022

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.157

“Faucets Version1.0” Certification Criteria

Japan Environment Association
Eco Mark Office

1. Purpose of Establishing Criteria

Omitted.

2. Applicable Scope

Applicable scope of this product category is listed in the Table 1.

Table 1 Applicable Scope

| | Product type |
|---|---|
| A | Faucet with built-in water-saving disc |
| B | Faucet with built-in constant flow regulating valve |
| C | Faucet with aerator function |
| D | Faucet with time-control mechanism |
| E | Faucet with volume-control mechanism |
| F | Automatic faucet (with self-generation function) |
| G | Automatic faucet (AC100V type) |
| H | Hot water-saving faucet (Hot water-saving A1) |
| I | Hot water-saving faucet (Hot water-saving B1) |
| J | Hot water-saving faucet (Hot water-saving C1) |

- Note)
1. The hot water-saving faucet to be included in the scope shall be any of the thermostatic combination faucet, the mixing combination faucet, and single lever combination faucet, all of which have flow control part and temperature control part are within the scope of users' operation.
 2. For the hot water-saving faucets (Hot water-saving A1), the faucets designed for use in the kitchen or bathroom are in the

scope.

3. For the hot water-saving faucets (Hot water-saving B1), the faucets designed for use in the bathroom are in the scope.
4. For the hot water-saving faucets (Hot water-saving C1), the faucets designed for use in the kitchen or for washstand are in the scope.

3. Terminology

| | |
|---|---|
| Faucet with built-in water-saving disc | Faucet equipped with a disc designed to save water in a water faucet. Water discharge from a water faucet equipped with a water-saving disc is significantly smaller than that from a water faucet equipped with an ordinary disc, at the same lever opening degree. Fixed type discs are included. |
| Faucet with built-in constant flow regulating valve | The faucet which has a built-in constant flow regulating valve with the amount of flow set at a fixed point, from among the regulating valves that maintain the flow at a fixed amount regardless of changes in the pressure at the inlet or the outlet. Flow regulating valves utilize the kinetic pressure of water, a spring, etc. Attention should be paid to the accuracy of constant flow and allowable pressure. |
| Faucet with aerator function | Faucet which can save water by mixing air into water flow. |
| Faucet with time-control mechanism | Faucet that automatically stops water flow when water has been discharged for a preset time |
| Faucet with volume-control mechanism | Faucet that is used for filling hot or cold water in the bathtub, and automatically stops water flow when a preset volume has been discharged |
| Automatic faucet | Water faucet which automatically stops discharge of water, with built-in optoelectronic sensor, solenoid valve, etc. Automatic faucets are available for hot water and cold water. Two different types of automatic faucets are available; one operates with self-generated electricity and the other uses AC100-volt power supply. |

| | |
|---|---|
| Hot water-saving faucet | Among the faucets which contribute to reduction of primary energy consumption through reduced use of hot water, the hot water-saving faucets are any of the thermostatic combination faucet, the mixing combination faucet, and single lever combination faucet, and have the mechanism of stopping water discharge at hand (Hot water-saving A1), the mechanism of discharging small flow (Hot water-saving B1) or the mechanism of discharging water with priority on cold water (Hot water-saving C1). |
| Thermostatic combination faucet | Combination faucet incorporating a mechanism which supplies mixture of hot water and cold water at a discharge temperature set by a temperature regulating knob, by automatically regulating the ratio of hot water and cold water even at temperature and pressure fluctuations |
| Mixing combination faucet | Combination faucet which can regulate discharge temperature, by means of manipulating a single lever |
| Single lever combination faucet | Combination faucet which can regulate the stopping, discharge and its amount of water and discharge temperature, by means of manipulating a single lever |
| Faucet with the mechanism of stopping water at hand (Hot water-saving A1) | Among faucets for kitchens or bathroom showers, those hot water-saving faucets equipped with the mechanism of discharging and stopping with such switches as buttons or sensors which are installed within the area of users' operation, which are independent from the discharge switching mechanism or flow and temperature adjustment mechanism (the bathroom shower faucets shall include the shower part). |
| Faucet with the small volume discharging mechanism (Hot water-saving B1) | Among taps for bathroom showers, those hot water-saving faucets which satisfy the conditions for "Requirements for Taps with the Mechanism of Discharging Small Flow" prescribed in "Technological Information Concerning the Criteria for Energy-saving of Houses and other Buildings and the Recognition of Low-carbon Architecture (method of measuring the designed amounts of primary energy |

| | |
|--|--|
| | consumption of residents)” by the Building Research Institute (including the shower part). |
| Faucet with the mechanism of discharging water with priority on cold water (Hot water-saving C1) | Among faucets for kitchens or for washstand, the hot water-saving faucets having the structure which does not allow discharge of hot water when the temperature control lever, which is incorporated with the discharge stopping operation section, is set at the front of the faucet, those having the structure which does not allow discharge of hot water, in the case that the temperature control lever, which is incorporated with the discharge stopping operation section, is located at the right or left side of the body of the faucet, when the rotation axis for temperature control is kept horizontally and the lever is located between the horizontal surface and 45 degrees to the above, or those having the discharge stopping operating section exclusively for cold water independent from the discharge stopping operating section for hot and cold water. |
| Water supply equipment | The “water supply equipment” shall mean the water pipe bifurcated from the drainpipe installed by a water utility company to supply consumers with water as well as the water supply fittings directly connected to them (such fittings should be the faucets, etc. structurally connected to the water pipe which are not easily to be removed and enable to supply water with the water pressure being maintained; devices which are connected but can be easily removed, such as hoses, shall not be included). |
| Prescribed constituent | A material component added for the intended purpose of giving certain characteristics to a product. Impurities of 0.1wt% or less that are technically unavoidable in the manufacturing process are not included. |

4. Certification Criteria and Certification Procedure

4-1. Environmental Criteria and Certification Procedure

4-1-1 Resource Saving and Resource Recycling

- (1) Regarding water-saving performance, criteria items set by each product type in table2 shall be met.

Table 2 criteria items for water-saving performance

| | |
|---|--|
| <p>A: Faucet with built-in water-saving disc</p> | <p>All the following requirements a)-c) shall be met.</p> <p>a) When the handle is opened 120 degrees, the discharge rate shall be more than 20% but not be more than 70% of that when the water faucet equipped with an ordinary disc</p> <p>b) When the handle is fully opened, the discharge rate shall be not less than 70% of that of being equipped with an ordinary disc.</p> <p>c) No electric energy shall be used.</p> |
| <p>B: Faucet with built-in constant flow regulating valve</p> | <p>All the following requirements a)-c) shall be met.</p> <p>a) When the handle is fully opened, the proper flow shall be in the range of 5-8 liters/min at a water pressure of 0.1 MPa and more and at 0.7MPa and lower.</p> <p>b) An instruction manual shall describe the installation condition by its purpose to allow usage that meets the enough flow volume</p> <p>c) No electric energy shall be used.</p> |
| <p>C: Faucet with aerator function</p> | <p>All the following requirements a)-c) shall be met.</p> <p>a) At a water pressure of 0.1 MPa or more and at a water pressure of 0.7 MPa or less, the proper flow shall not be more than 80% of that of the faucet without the aerator cap.</p> <p>b) The discharge shall not be less than 5 liters/min at a water supply pressure of 0.1 MPa with a fully opened lever.</p> <p>c) No electric energy shall be used</p> |

| | |
|---|--|
| D: Faucet with time-control mechanism | <p>All the following requirements a) and b) shall be met</p> <p>(a) Water flow stops automatically when water has been discharged for a preset time</p> <p>(b) The product has the following performance:</p> $\left \frac{\text{setting time} - \text{actual time}}{\text{setting time}} \right \leq 0.05$ |
| E: Faucet with volume-control mechanism | <p>All the following requirements a) and b) shall be met</p> <p>a) The product has the following performance</p> $\left \frac{\text{preset discharge volume} - \text{actual discharge volume}}{\text{preset discharge volume}} \right \leq 0.2$ <p>b) No electric energy shall be used.</p> |
| F: Automatic faucet (AC100V type) | <p>All the following requirements a) and b) shall be met</p> <p>a) The faucet electrically controlled to start discharging automatically when a hand comes close to the discharging opening of the faucet without touching it and to stop discharging automatically when the hand is away. The time up to the stopping shall be 2 seconds or less.</p> <p>b) The proper discharge rate shall be shall not be more than 5 liters/min at a water pressure of 0.1 MPa and more and at 0.7MPa and lower.</p> |
| G: Automatic faucet (with self-generation function) | <p>All the following requirements a)-c) shall be met.</p> <p>a) The faucet electrically controlled to start discharging automatically when a hand comes close to the discharging opening of the faucet without touching it and to stop discharging automatically when the hand is away. The time up to the stopping shall be 2 seconds or less.</p> <p>b) The proper discharge rate shall be shall not be more than 5 liters/min at a water pressure of 0.1 MPa and more and at 0.7MPa and lower.</p> <p>c) The faucet shall have the structure enabling self-generation of electricity and does not need external</p> |

| | |
|--|--|
| | power supply of single-phase, alternate current (100 volts). |
| H: Hot water-saving faucet (Hot water-saving A1) | All the following requirements a) shall be met a) The faucet shall have the structure meeting the definition of the hot water-saving faucet (Hot water-saving A1). |
| I: Hot water-saving faucet (Hot water-saving B1) | All the following requirements a) shall be met a) The discharging power shall be measured by the testing method prescribed in the “Technological Information Concerning the Criteria for Energy-saving of Houses and other Buildings and the Recognition of Low-carbon Architecture (method of measuring the designed amounts of primary energy consumption of residents)” by the Building Research Institute, and the value obtained shall satisfy either of (i) or (ii) below. (i) Without the mechanism of aeration into the flow: 0.6N or more (ii) With the mechanism of aeration into the flow: 0.55N or more |
| J: Hot water-saving faucet (Hot water-saving C1) | All the following requirements a) and b) shall be met. a) The faucet shall have the mechanism which matches the definition of the hot water-saving faucet (Hot water-saving C1). b) There shall be indication which shows the front position of the faucet, on the faucet or in the users’ manual, etc. |

- Note)
1. Testing method of the discharging volume shall conform to the discharging volume test prescribed by JIS B 2061:2013.
 2. Testing method of the discharging volume regulation shall conform to the discharging volume regulation test prescribed by JIS B 2061:2013.
 3. The time up to the stopping of discharge shall be defined as that up to the point of time the main flow of discharge converges. Measurement shall be carried out five times and the average shall be obtained.

[Certification Procedure]

The statement that the device is in compliance with the water saving standards shown in Table 2 shall be included in the attached certificate. In addition, a certificate showing the results of measurement by a third-party organization or by the applicant shall be submitted.

- (2) Maintenance and repair subcontract systems shall be available, and repairs shall be carried out as requested by the users. Supply of the spare parts shall be ensured for 6 years after production of the product stops

[Certification Procedure]

Compliance with this item shall be indicated in the attached certificate. In addition, the applicant shall submit copies of product documentation indicating the matters related to this item.

- (3) The product design shall be devised so that the product will easily be recycled after use (e.g.: indication of features of materials; unification of materials; being easily dismantled into different material components).

[Certification Procedure]

Compliance with this item shall be indicated in the Attached Certificate. In addition, the applicant shall submit explanatory documents such as a drawing or design specification to confirm a recycle-conscious design.

4-1-2. Restriction and Control of Hazardous Substances

- (4) The product packaging and packing shall be made as simple as possible and sufficient attention shall be paid to the easiness of recycling and the reduction of environmental burdens at the time of disposal. In addition, plastic materials used in product packaging and packing shall not be added a polymer including halogen and an organic halogen compound as prescribed constituents.

[Certification Procedure]

Product packaging material and a packaging method shall be specifically indicated in the attached certificate. In addition, It shall also be indicated in the attached certificate that plastic materials to be used in product and product packaging do not contain polymer including halogen and organic halogen compound as prescribed constituents.

- (5) The content rate of lead, mercury, cadmium, hexavalent chromium compounds,

Polybrominated biphenyl (PBB) or Polybrominated diphenylether (PBDE) in the electric and electronic parts of the product and components of toilet seats with a warm water washing function shall comply with Annex II (Table 3) of the amended RoHS Directive (2011/65/EU). However, this does not apply to those substances specified in Annex III.

In addition, the product shall have no flame retardant of short-chain chlorinated paraffin (the number of chained C is 10 to 13 and contained chloride concentration is 50% or over) added as prescribed constituents.

Table 3. Content rate

| Material | Content rate[wt%] |
|-------------------------------------|-------------------|
| Lead and its compounds | ≤ 0.1 |
| Mercury and its compounds | ≤ 0.1 |
| Cadmium and its compounds | ≤ 0.01 |
| Hexavalent chromium compounds | ≤ 0.1 |
| Polybrominated biphenyl (PBB) | ≤ 0.1 |
| Polybrominated diphenylether (PBDE) | ≤ 0.1 |

* The content rate refers to the content proportion in a homogeneous substance (minimum unit that can be separated by rule with totally uniform composition).

[Certification Procedure]

Compliance with this item shall be indicated in the Attached Certificate. In addition, it is recommended that checking is performed based on JIS Z 7201 “Management of chemical substances in products - Principles and guidelines”.

- (6) A battery built in the product shall comply with the EU Directive 2013/56/EU (Table 4).

Table 4 Criteria for heavy metals in batteries

| | mercury [wt%] | cadmium [wt%] |
|--------------|---------------|---------------|
| Content rate | ≤ 0.0005 | ≤ 0.002 |

[Certification Procedure]

Compliance with this item shall be indicated in the Attached Certificate.

- (7) In case an antimicrobial finishing is made in the product, the product shall be registered with such as the SIAA Mark of Society of Industrial technology for

Antimicrobial Articles or Registration system for the use of antimicrobial performance criteria of Japan Construction Material & Housing Equipment Industries Federation, etc.

[Certification Procedure]

Compliance with this item shall be indicated in the Attached Certificate. In the case of using antimicrobial agents, a copy of a certificate that certifies the registration with the SIAA Mark of Society of Industrial technology for Antimicrobial Articles or Registration system for the use of antimicrobial performance criteria of Japan Construction Material & Housing Equipment Industries Federation, etc. shall be submitted.

- (8) 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 substances 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 past five years from the date of application (whether there is any violation) must be reported. If there is any violation, proper remedies and preventive measures shall 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 relevant plant manager (entry or attachment of a list of names of the Environmental Laws, etc.) must be submitted.

In addition, the applicants shall report whether there is any violation in the past 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 (clearly indicating a series of communication);

- b. Following materials (copies of recording documents, etc.) 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 roles, etc.);
 - 3) Bylaws 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).

4-1-4 Information Provision to users

- (9) Information a) and b) mentioned below shall be indicated in users manuals, catalogs, website, etc. in an easy-to-read manner.
- a) Regarding the products consuming electricity, information on the use of energy (such as power consumption)
 - b) Matters to be noted concerning maintenance (such as necessity for regular inspections).

[Certification Procedure]

Copies of a corresponding part in the instruction manual, catalog and web site, etc. that indicate information to users shall be submitted.

4-2. Quality Criteria and Certification Procedure

- (10) The quality of the Product shall conform to corresponding Japanese Industrial Standards (JIS) or other related quality standards. Regarding a water supply equipment, the product quality shall meet Article 5, ordinance of Water Work Law “Standard for structure of domestic water supply equipment”.

[Certification Procedure]

A certificate certifying the conformity with the corresponding JIS, Article 5, ordinance of Water Work Law “Standard for structure of domestic water supply equipment”, etc. or a certificate such as quality test results conducted by a third party institute or applicant’s own shall be submitted.

5. Product Classification, Indication and Others

- (1) Products shall be classified (applying unit) by kind of product and trade name shown in the applicable scope (Table 1). When the criteria items A-J on water saving performance listed in Table 2 are multiply met at a time, it is considered as in the same classification.
- (2) Regarding products which correspond to designated procurement items under the "Law Concerning the Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities Authorities (Green Purchasing Law)", conformity status for evaluation criteria will be announced by a certification number on the website of the Eco-Mark Office.
- (3) In principle, Eco-Mark shall be indicated on the product. B type display shall be conducted in accordance with the "Guidelines for Eco-Mark Use". In addition, the display position and contents shall be submitted when applying for Eco Mark certification and its use. Regarding parties to Eco Mark Usage Contract who already own Eco Mark products, type A display is also acceptable。

Type B display shall have certification information including the following 1) to 3) adjacent to the Mark. If a certain condition is satisfied in accordance with the "Guidelines for Eco Mark use", only the Mark display is acceptable.

- 1) The wording of "Eco Mark" or nominal designation of Eco Mark products stipulated in Section 7 in the "Guidelines for Eco Mark use"
- 2) The wording indication of environmental information (See below)
- 3) The Eco Mark certification number and the name of the Eco Mark Usage Contractor (The selection and display of either one is acceptable)

The indication of environmental information shall be expressed as, if it is in the applicable scope A to G, "Water-saving Faucet" and for H to G, "hot water saving faucet". For F, it is possible to add "self-generation type". Also, for H to J, it is possible to add "hot water saving A1", "hot water saving B1", "hot water saving C1", or either "hot water saving A1/B1" or "hot water saving B1/C1". In addition, for hot water saving faucets, in case that the saving water performance in A to E are simultaneously met, it is possible to indicate as "saving water/hot water faucet".

Only in the case of certification products under No.116 "Water-saving Equipment Version 2" (established on August 1, 2005), it shall be accepted to indicate the environmental information and certification number as before,

even in the indication of this product category.

Examples are shown below.

[An example of water saving faucet]



エコマーク商品
節水水栓
12345678
〇〇〇株式会社

[An example of hot water saving faucet]



エコマーク商品
節湯水栓
12345678
〇〇〇株式会社

[An example of combined indication of
“water-saving faucet” and “self-generation type”]



エコマーク商品
節水水栓(自己発電式)
12345678
〇〇〇株式会社

[An example of water/hot water saving faucet]



エコマーク商品
節水・節湯水栓(節湯 A1/B1)
12345678
〇〇〇株式会社

January 1, 2016

Established (Version1.0)

December 31, 2022

Expiration date

The Certification Criteria for the Product Category will be revised when necessary.