

Eco Mark Product Category No.157

“Faucets Version1.3”

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 / dry battery-powered)
- H. Faucet with a water stop mechanism at hand
- I. Faucet with a small flow rate water discharging mechanism
- J. Faucet with a water-preceding discharge mechanism

Established: January 1, 2016
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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 Version1.3” Certification Criteria

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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 / dry battery powered)
H	Faucet with a water stop mechanism at hand
I	Faucet with a small flow rate water discharging mechanism
J	Faucet with a water-preceding discharge mechanism

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
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	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 to some extent regardless of changes in the pressure at the inlet or the outlet.
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 and two different types of automatic faucets; one operates with self-generated electricity and the other uses AC100-volt power supply or batteries (dry cells). When procuring automatic faucets for hot water, sufficient attention shall be paid to the possibility that the flow rate on the hot water side may be less than the ignition flow rate for water heaters (instantaneous type) gas water heaters and oil water heaters
Hot water-saving faucet	Hot water saving faucet means a thermostatic combination faucet, a mixing combination faucet or a single lever combination faucet, and the flow control unit and temperature control unit are within the user's operation range to reduce the amount of hot water used. It is a general term for models such as faucet with a water stop mechanism at hand, faucet with small flow rate water discharging mechanism and faucet with water preceding discharge mechanism.

Thermostatic combination faucet	Combination faucet incorporating a mechanism which automatically regulates the ratio of hot water and cold water and supplies mixture of hot water and cold water at the set temperature by setting a discharge temperature in advance with a temperature regulating handle even at water 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 a water stop mechanism at hand	Kitchen faucets, bathroom shower faucets or bathroom shower bath faucets among the hot water saving faucets, and faucets (including the shower part) that can spout and stop water within the operating range of the user..
Faucet with a small flow rate water discharging mechanism	Faucets (including the shower part) which have the small flow rate water discharging function in bathroom shower faucets or bathroom shower bath faucets among hot water-saving faucets.
Faucet with a water-preceding discharge mechanism	Faucets that reduce the use of hot water due to unintended operation in kitchen faucets and washbasin faucets among hot water saving faucets.
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.
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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

A: Faucet with built-in water-saving disc	<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>
B: Faucet with built-in constant flow regulating valve	<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 8 liters/min or less at each 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>
C: Faucet with aerator function	<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</p>

	<p>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 (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 power supply of single-phase, alternate current (100 volts).</p>
G: Automatic faucet (AC100V type / dry battery-powered)	<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</p>

	<p>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>
H: Faucet with a water stop mechanism at hand	<p>All the following requirements a) and b) shall be met</p> <p>a) To be equipped with the mechanism of discharging and stopping, independent from the discharge switching mechanism or flow and temperature adjustment mechanism</p> <p>b) To enable discharging and stopping with such switches as buttons or sensors which are installed within the area of users' operation.</p>
I: Faucet with a small flow rate water discharging mechanism	<p>Any of the following requirements for discharging power shall be met.</p> <p>a) Without the mechanism of aeration into the flow: 0.6N or more</p> <p>b) With the mechanism of aeration into the flow: 0.55N or more</p>
J: Faucet with a water-preceding discharge mechanism	<p>Any of the following requirements shall be met.</p> <p>a) 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.</p> <p>b) Having the structure which does not allow discharge of hot water and 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</p> <p>c) Having the discharge stopping operating section exclusively for cold water independent from the discharge stopping operating section for hot water.</p>

Note) 1. Testing method of the discharging volume shall conform to the

discharging volume test prescribed by JIS B 2061.

2. Testing method of the discharging volume regulation shall conform to the discharging volume regulation test prescribed by JIS B 2061.
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 plastic containing halogen to the polymer backbone.

[Certification Procedure]

Product packaging material and a packaging method shall be specifically indicated in the attached certificate. Whether or not any plastics containing halogens in the polymer backbone for the product packaging and packing shall be stated in the Attached Certificate.

- (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. Also, for faucets with a water-preceding discharge mechanism, information on c) is clearly shown on the faucet itself or in the installation manual.

- 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).
- c) The front position of the faucet for faucets with a water-preceding discharge mechanism

[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 (application classification) by product type shown in the applicable scope (Table 1) and by product name. 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. The Eco Mark Utilization Contractors who own the Eco Mark products shall also be allowed to indicate the description and the certification number as before.



(Note for the indication)

*For indicating the logo, Eco Mark certification number (eight-digit number) or the name of the licensee using the logo shall be appeared.

* Such expression as “Eco Mark product” can be used following the 2.(2) of the Guide to Eco Mark Usage.

“Eco Mark product”, “#Eco Mark”, “www.ecomark.jp”, “Eco Mark Certificate”

* In accordance with “Environmental Labeling Guidelines” of the Ministry of the Environment of Japan, etc., the environmental claims of certified products may be indicated in association with Eco Mark.

(<https://www.env.go.jp/policy/hozen/green/ecolabel/guideline/>)

*The Guide to Eco Mark Usage shall be followed for any cases not listed above.

(<https://www.ecomark.jp/office/guideline/guide/>)

January 1, 2016	Established (Version1.0)
March 1, 2018	Revised (Version1.1)
April 1, 2019	Revised (5.(3) Mark indication)
March 1, 2021	Extension of expiration
April 1, 2022	Revised (Terminology, Table2, 4(9), Version1.2)
December 15, 2022	Revised (4.(4) Version1.3)
December 31, 2027	Expiration date

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