

Eco Mark Product Category No.156

“Sanitary wares such as toilet bowls, etc. Version1.1”

Certification Criteria

- Applicable Scope-

A. Toilet bowls

B. Urinals

C. Automatic washing apparatus with flow control for a urinal.

Established: January 1, 2016
Last revised: March 1, 2018
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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.156

“Sanitary wares such as toilet bowls, etc. Version1.1” 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.

Table1 Applicable scope

	Product type
A	Toilet bowls
B	Urinals
C	Automatic washing apparatus with flow control for a urinal.

- Note)
- 1 Toilet bowls are handled as a complete set with a tank and a flush valve or a valve
 - 2 Toilet bowls shall include those incorporated with the toilet seats with washing function

3. Terminology

Automatic washing apparatus with flow control	Sensor-type flush equipment with a function to automatically control flush water flow according to use frequency and duration
Flush water volume	Actual water volume that flows at one-time flushing
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

A: Toilet bowls	<p>The toilet bowl shall satisfy all the requirements a)-c) mentioned below. In addition, the toilet bowl for which water is supplied with the flush valve system shall also satisfy all of d)-g).</p> <p>a) Washing water shall be 5 liters or less per one flush</p> <p>b) The flushing and discharging performance shown in JIS A 5207:2014 shall be met</p> <p>c) The transportation performance of a toilet bowl shown in the BLT WC-11:2013 shall be met. In addition, in order to avoid such troubles as the clogging of water pipes, points of note in installation, concerning the diameter, length and inclination of drainpipes, etc., shall be described in the explanatory documents for construction companies, etc.</p> <p>d) Deviation in discharge volume at one flush action (in the condition that the lever is kept pressed) shall be within $\pm 15\%$ of the discharge volume set for a supply pressure of 0.2 MPa.</p> <p>e) The structure shall be easy to control discharge volume.</p> <p>f) The flush valve shall meet a) even when the valve is kept depressed.</p> <p>g) The spout performance of a flush valve shall meet the requirements of JIS B 2061:2013.</p>
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B: Urinals	<p>All the following requirements a)-c) shall be met.</p> <p>a) a) The mode which automatically controls, in accordance with the use situation, the amount of washing water to be limited below 2 liters per flush shall be equipped.</p> <p>b) The flushing and discharging performance shown in JIS A 5207:2014 shall be met</p> <p>c) In case there is no use of urinal for a while, the structure shall be to conduct automatically washing for the purpose to protect sealing water of urinal trap.</p>
C: Automatic washing apparatus with flow control for a urinal.	<p>All the following requirements a)-c) shall be met.</p> <p>a) The mode which automatically controls, in accordance with the use situation, the amount of washing water to be limited below 2 liters per flush shall be equipped. However, if the urinal is the type of the manual flush valve model with a retrofitted device or the exchange type, in accordance with the use situation, may have the mode automatically limiting the washing water below 4 liters per flush.</p> <p>b) This device shall meet the washing and discharge performance shown in JIS A 5207:2014 when set in a urinal.</p> <p>c) In case there is no use of urinal for a while, the structure shall be to conduct automatically washing for the purpose to protect sealing water of urinal trap</p>

Note) 1. The amount of washing water of the toilet bowls shall be measured pursuant to the method shown in JIS A 5207:2014, section 8.2.1.7 “Method of Measuring Washing Water.” Conformity with the criteria shall be judged pursuant to the concept shown in the explanatory part of JIS A 5207:2011 while taking into consideration the fluctuation of water amount due to the variations in pottery and water supplying parts. More specifically, the actual measurement shall be judged while the margin of error for the criteria of 5 liters or less per flush (amount of water indicated in manufacturer’s catalog) is supposed to be +0.5 liters or less.

2. The transportation capacity of the toilet bowls shall be tested

following the testing of transportation capacity of toilet bowls shown in “Methods of Testing Capacity of Superior House Components (Toilet Bowls)” (BLT WC-11:2013) of the Center for Better Living.

[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 Prevention of Global Warming

- (4) Concerning the toilet bowls incorporated with toilet seats with warm water washing function, energy consumption efficiency of the toilet seat with warm water washing function shall not exceed the formula for each category listed in Table.

Table 3 Standard Energy Consumption Efficiency for Warm-water-shower toilet seat

Availability of the water tank	Standard Energy Consumption Efficiency
Warm-water storage type (With a warm-water tank)	175
Instantaneous type (Without a	97

warm-water tank)	
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Note) Energy consumption efficiency is calculated according to “3 Energy Consumption Efficiency Measurement Methods (2),” in Ministry of Economy, Trade and Industry Notification No. 269 (December 27, 2013), based on the Law Concerning the Rational Use of Energy.

[Certification Procedure]

Annual amount of power consumption shall be indicated in the attached certificate. Test results conducted by a third party institution or by the applicant’s own company shall be submitted.

4-1-3. Restriction and Control of Hazardous Substances

- (5) 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.

- (6) 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 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”.

- (7) 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.

- (8) 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.

- (9) 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

(10) Information a)-d) mentioned below shall be indicated in users manuals, catalogs, website, etc. in an easy-to-read manner.

a) Information about the amount of washing water.

b) Regarding toilet bowls with warm water washing function incorporated, explanation of energy-saving function of the toilet seats with warm water washing function as well as the functions of various kinds (such as automated opening and closing of the lid, automated washing, and deodorizing apparatus), their factory default settings and how to change them.

c) Regarding the products consuming electricity, information on the use of energy (such as power consumption).

d) 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

(11) 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. Considerations

In manufacturing products, it is desirable to consider the following, although they are not requirements for certification. The conformance to the individual criteria item shall be indicated in the Attached Certificates.

(1) The life cycle assessment (LCA) has been conducted for the applied products and similar representative products. The effect of reducing environmental burdens has been confirmed and the results have been publicly released.

(2) The toilet bowls are designed to allow easy cleaning and sweeping on a daily

basis and not to be easily stained, so that they can be used in a clean condition for a long time.

- (3) Recycled parts taken out from already used products are used in the seats with warm water washing function as many as possible; if plastic parts are used, the recycled plastics are used as far as possible.
- (4) The system for recovery, reuse or recycle of packaging materials, etc. is established.

6. 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) and, in addition, by the method of water supply (tank type, washing valve type and exclusive washing valve type) defined in JIS.
- (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 for the toilet, "Water-saving Toilet Bowl" or "Water-saving Urinal" and, if it is for

the automated washing apparatus with flow control for urinals, “Water-saving Apparatus.” For the toilet bowls, it is possible to express “Amount of Washing Water: ** Liters,” in the place of “Water-saving Toilet Bowl.” As to “** Liters,” it shall be acceptable to put either the amount of water that the manufacturer officially declares (indicated value) or the figure adjusted to the one easy to handle with the standard value as the upper limit (description of “** Liters or Less” is also acceptable).

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 single item of toilet]



エコマーク商品
節水型大便器
12345678
〇〇〇株式会社

[An example of the automated washing apparatus with flow control for urinals]



エコマーク商品
節水型機器
12345678
〇〇〇株式会社

[An example of indication of amount of washing water of toilet bowl]



エコマーク商品
洗浄水量 5L 以下
12345678
〇〇〇株式会社

January 1, 2016

March 1, 2018

December 31, 2022

Established (Version1.0)

Revised (4.(4) Version1.1)

Expiration date

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