

Eco Mark Product Category No.140

“Containers and Packaging for Food and Beverages, Cosmetics, Household Goods Version 1.16” Certification Criteria

K. Plastic containers and packaging using bio-attributed plastics

Japan Environment Association
Eco Mark Office

1. Purpose of establishing criteria

Omitted

2. Applicable Scope

The criteria shall cover plastic containers and packaging that function to preserve the quality of content (such as extension of the quality preservation period). However, if the Eco Mark product category is also set on the content, such packaging is treated as an individual package of said content and thus not included in the applicable scope of this product category.

The Category K covers bio-attributed plastics managed under the mass balance approach. Bio-based plastics are exempt from the Category K (whose bio-based carbon content can be determined by ^{14}C content measurement specified in ISO 16620-2 or ASTM D6866).

3. Terminology

Omitted

4. Certification Criteria and Certification Procedures

To show conformance to the criteria items, the Attached Certificates and related documents shall be submitted.

4-1. Environmental Criteria and Certification Procedures

- (1) The attribution factor of characteristics of biomass feedstock to plastic for containers and packaging shall meet the corresponding rate in Table 1. The attribution factor shall be managed under the mass balance approach and maintained after a relevant product obtains an Eco Mark certification.

Table 1. The attribution factor of characteristics of biomass feedstock to plastic

Classification	Molded product, etc.	Laminated packaging materials
Weight percentage of bio-attributed	25% or more	10% or more

plastics (attribution factor)		
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Note) For laminated packaging materials, any material other than plastic (an adhesive, printing ink, aluminum foil of a laminated packaging material, etc.) may be excluded from the weight calculation.

[Certification Procedure]

Documents to meet all requirements in the following a) – c) shall be submitted.

- a) An applicant shall submit a certificate that states the attribution factor of characteristics of biomass feedstock to plastic and supportive documents (product specifications, etc.).

Manufacturers and other relevant parties in the supply chain of the plastics shall calculate and record all inputs of biomass feedstocks attributed to the plastics and their production outputs and the attribution factors throughout a year (including supportive documents) to maintain the attribution factors of biomass feedstocks at an appropriate level. An applicant shall also submit any evidence documents of third-party audit or certification (an international sustainability certification for plastics, etc.) (submit an audit report, a copy of certificate, etc.). An applicant shall retain the evidence documents for five years.

- b) Sustainability of biomass mixed into plastic as raw material shall meet the requirements of [Appendix 2](#) “Sustainability checklist of bio-based plastics (raw resin)” and the supply chains of the biomass shall be identified. If the biomass material has underwent third-party audit or certification for sustainability (an international sustainability certification for plastics, etc.), the result of audit or certification may be submitted as evidence instead of [Appendix 2](#). An applicant shall submit documents on the source of biomass material (a cultivation area (country, state, city, etc.), a generation process of waste and residues, etc.), a manufacturing flowchart (of raw resin) (describe the name of manufacturers of fundamental chemicals (monomers), polymers, etc.), and checklists or an evidence of a third-party audit or certification.

- c) It shall be confirmed through life cycle assessment (LCA) that the bio-attributed plastic does not cause an increase of GHG emissions (in terms of CO₂) throughout the product life cycle in comparison with fossil-based one to replace with. An applicant shall submit the result of LCA conducted by a third-party. (An applicant shall provide the LCA result and the calculation conditions. If the applicant has undergone LCA under an international sustainability certification scheme for plastics, it may submit the data instead. The applicant may submit an academic paper published on a journal as an evidence as long as the same materials and/or manufacturing processes (sites) are mentioned in the paper as those used for the product applied for certification.)

- (2) In manufacturing the applying 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 manufacturer of the applying 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).

- (3) Substances regulated by “Voluntary Regulation on Printing Ink (NL regulations)” by the Japan Printing Ink Makers Association shall not be added to printing ink used for the container and packaging as a prescription constituent.

[Certification Procedure]

The Applicant shall state in the Attached Certificate that the product conforms to NL regulations.

- (4) Plastic materials used in the containers and packaging shall not be added plastics that contain halogen in polymer backbone as a prescription constituent.

[Certification Procedure]

For plastic materials, the Applicant shall state in the Attached Certificates whether any halogen element is added or not in polymeric backbone.

- (5) Plastic additives used in plastic materials such as the plasticizers, color materials, stabilizers, lubricants, etc. shall conform to the positive list system of food utensils, containers and packaging, etc. If plastic additives not listed in the positive list are used in the general containers which are not intended for food, the additives shall meet the requirements described in ISO 8124-3, etc.

[Certification Procedures]

The Applicant shall submit certificates that such plastic additives as plasticizer, color materials, stabilizers, lubricants, etc. used in the plastic materials conform

to the Positive List system of food utensils, containers and packaging, etc. With respect to plastic additives not included in the Positive List, the results of tests to show the conformance to the requirements stipulated in ISO 8124-3, etc. shall be submitted.

- (6) Adhesives to be used for the containers and packaging shall conform to “voluntary regulations on adhesives for food package materials, etc.” (NL regulations) by the Japan Adhesive Industry Association.

[Certification Procedures]

Conformance to the NL regulations shall be stated in the Attached Certificate

- (7) The materials for containers and packaging shall meet the requirement described in “the Standards and criteria for Food and Food Additives, etc. (Ministry of Health and Welfare Notice No. 370, 1959)”

[Certification Procedures]

The Applicant shall submit test results certifying that the corresponding requirements are met.

4-2. Quality Criteria and Certification Procedures

- (8) Quality of containers of containers and packaging shall conform to the industrial voluntary standards or the manufacturer’s own standards.

[Certification Procedures]

A document to show the conformance to the appropriate standards shall be submitted.

4-3. Certification Criteria and Certification Procedures for labeling on products containing bio-attributed plastics

- (9) Eco Mark shall be provided on products, packages, the website, and catalogues, etc. in accordance with the “Environmental Labeling Guidelines” (Ministry of the Environment) and the following instructions.

- 1) Necessary information shall be provided to make the reason for Eco Mark certification known to consumers properly.

Example: “This product has a content of bio-attributed plastics of XX percent”, etc.

[Examples of unacceptable claims]

Avoid phrases that may mislead consumers into believing that the product actually contains biomass material. :

- Phrases suggesting that the product contains biomass material, for example, “Use” and “Contain” biomass material
- The content of bio-based synthetic polymer XX%
- Bio-based content XX%

- 2) An applicant shall assure that it does not make a claim for the content of bio-based plastics in products that are not attributed to biomass characteristics in a single product category managed under the mass balance approach.

If a single product (or a molecular structure) is consisted of a material managed

under the mass balance approach and other materials that actually contain bio-based plastics, the claims for those materials shall be made separately (not making a claim of them together)

Example 1 Manufacturing a multilayer film consisting of a bio-attributed polystyrene film and a bio-based polyethylene film.

Example 2 Manufacturing PET by using bio-based ethylene glycol and bio-attributed terephthalic acid

[Certification Procedures]

An applicant shall submit a text, etc. of environmental claims. For the instruction 2), an applicant shall submit a statement of assurance.

5. Considerations

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

- (1) Containers and packaging shall have a mechanism related to discharge control of wastes from recovery/recycling
- (2) Plastic materials to be used in a container/package shall not be a disincentive for recycling after use.

6. Product Classification, Indication and Others

- (1) A product classification (application unit) shall be by brand name.
- (2) When indicating the Eco Mark on the packaging, it should be indicated so as to clearly show that the product packaging or container is the Eco Mark certified products and also show that the product content has nothing to do with the Eco Mark
- (3) In principle, Eco Mark shall be indicated on the body of the container and packaging, etc.

Example)



エコマーク認定容器



Eco Mark Certified

(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/>)

February 1, 2023	Revised (Version1.15, Category K added, I, J, etc. revised)
August 1, 2024	Revised (Version1.16, Category A-1:4-2(8), A-2:4-1(8), B:4-2(12), C:4-1(7), D:4-1-2(6), G, I and J:4-1(6)
June 30,2027	Expiration

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

Appendix 2 “Sustainability checklist of bio-attributed plastics (raw resin)”

No	Purpose	Request (Item that must be realized)	Subject	Realized	Implementation Method (Check off all relevant items.)
1	Prevention of global warming, conservation of the natural ecosystem	Hasn't the farm land where plants are cultivated been converted from valuable land in biodiversity or land with high carbon storage (forests, peatland, etc.) since 2008?	Farm land	<input type="checkbox"/> Not converted <input type="checkbox"/> Converted <input type="checkbox"/> Not applicable due to residues or waste	<input type="checkbox"/> Confirmed the laws and regulations concerning the land conversion for the site. <input type="checkbox"/> Gained the understanding of the actual condition of the site through on-site investigation or hearings. <input type="checkbox"/> Defined and released the guideline for procurement of plants. Alternatively, conforming to the guideline of an independent third party. - Name of the guideline: - Location of release: <input type="checkbox"/> Also using the certification system of an independent third party, regarding the procurement of plants. -Name of certification system: <input type="checkbox"/> Others (Describe specifically.): []
2	Conservation of the ecosystem	If the Applicant uses the genetically modified crop as a raw material, has the Applicant assessed ensuring of safety?	Farm land	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/ <input type="checkbox"/> Not applicable (GM crops Not used) <input type="checkbox"/> Not applicable due to residues or waste	<input type="checkbox"/> Confirmed the laws and regulations concerning genetically engineered crop on the site. <input type="checkbox"/> Gained the understanding of the actual condition of the site through on-site investigation or hearings. <input type="checkbox"/> Defined and released the guideline for procurement of plants. Alternatively, conforming to the guideline of an independent third party. - Name of the guideline: - Location of release: <input type="checkbox"/> Also using the certification system of an independent third party, regarding the procurement of plants. -Name of certification system: <input type="checkbox"/> Others (Describe specifically.): []

No	Purpose	Request (Item that must be realized)	Subject	Realized	Implementation Method (Check off all relevant items.)
5	Use of recycled resources, avoidance of competition for food	If recycled resources are available as a part of crude raw materials of bio-attributed plastic (raw resin) on the site, did the Applicant preferentially use them?	Raw resin	<input type="checkbox"/> Yes/ <input type="checkbox"/> No/ <input type="checkbox"/> Not applicable (Not available)	Name of recycled resource in use [] Generated amount/percentage of recycled resources []
6	Prevention of global warming	Has the Applicant gained the understanding of the processing status of methane having a high global warming potential if it is generated by fermentation in the main manufacturing plant for the crude raw material?	Crude raw material manufacturing plant	<input type="checkbox"/> Yes/ <input type="checkbox"/> No <input type="checkbox"/> Not applicable	<input type="checkbox"/> Gained the understanding of the actual condition of the site through on-site investigation or hearings. <input type="checkbox"/> Others (Describe specifically.) []
7	Utilization of non-fossil energy sources and renewable energy sources	In the course of cultivation to raw resin manufacturing, did the Applicant utilize as many non-fossil energy sources (for example, bagasse, biogas, off gas, etc.) or renewable energy sources as possible?	Manufacturing plant	<input type="checkbox"/> Yes/ <input type="checkbox"/> No	Energy name and method of utilization []
8	Legal compliance	Does the manufacturing plant of the bio-attributed plastic (monomer, raw resin) follow related environmental laws and regulations and pollution control agreement with respect to air pollution, water contamination, noise, vibration, offensive odor, and emission of hazardous materials?	Resin manufacturing plant	<input type="checkbox"/> Yes/ <input type="checkbox"/> No	Monomer manufacturer / plant name [] Resin manufacturer / plant name []

* Residues or Waste defined in Renewable Energy Directive (RED) of EU