

Eco Mark Product Category No. 130

“Furniture Version2.3” Certification Criteria

- Applicable Scope-

The criteria shall cover “Furniture” defined in Appendix 1 and Appendix 2. Of electrical products other than specific electrical appliances based on the Electrical Appliance and Material Safety Law, this product category addresses products included in “329 Furniture with Lamp” and “330 Furniture with Electrical Outlet”, but not products included in “331 Other Furniture with Electrical Devices”.

Established: June 1, 2016
Revised: March 1, 2018
Expiration date: May 31, 2023

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.130

“Furniture Version2.3” Certification Criteria

Japan Environment Association
Eco Mark Office

1. Purpose of Establishing Criteria

Omitted.

2. Applicable Scope

The criteria shall cover “Furniture” defined in Appendix 1 and Appendix 2. Of electrical products other than specific electrical appliances based on the Electrical Appliance and Material Safety Law, this product category addresses products included in “329 Furniture with Lamp” and “330 Furniture with Electrical Outlet”, but not products included in “331 Other Furniture with Electrical Devices”.

3. Terminology

Prescription constituent	Components intentionally added with the purpose of providing specific characteristics to the product. Impurities which are inevitably mixed during the manufacturing process are excluded.
Additive	Substance added to give new properties to products or to complement insufficient properties.
Key material	A material that accounts for 50% or higher of product weight, excluding sub-materials such as metal and adhesive/paint, etc., as being a constituent material (paper material, wood, and plastic material) of the product. When each constituent material does not reach 50% of the product weight excluding the sub-materials such as metal and adhesive/paint, etc., however, a material whose weight percentage is highest in the paper material, wood, and plastic material shall be a key material.

Terms for paper

Post-consumer waste paper	Used paper generated from stores, offices and households and containing those to be used as a raw material for paper by paper manufacturers (including those that are shipped as articles and returned after passing through the distribution chain).
Pre-consumer waste paper	Paper generated from the working process following the paper making process of base paper, and used as a raw material by paper manufacturers. However, the following shall not be treated as waste paper: paper which is generated if processing is performed in a factory or workplace that uses paper as a raw material, such as paper

	processing factories, paper products factories, or printing and bookbinding plants of a paper manufacturer (including an associated company such as a subsidiary, affiliated company, etc. of said paper manufacturer) or if said paper manufacturer has other contractor to conduct processing through commissioning of the product before its shipment, and which is used by said paper manufacturer as a raw material for paper without being shipped as articles. (If paper leaves said paper manufacturer, etc. and is distributed by way of a third party, it shall be treated as waste paper, excluding a case in which waste sheet is intentionally treated as waste paper.)
Waste paper pulp	Pulp obtained by deflaking or deflaking/deinking waste paper, paper board, or cutting scraps of paper or paper board.
Percentage of waste paper in the pulp mixture	Weight percentage of waste pulp in pulp contained in product. Expressed by (waste paper pulp) / (virgin pulp + waste paper pulp) x 100 (%). However, the weight of the pulp is measured under the condition of containing 10% moisture. In addition, waste sheets shall not be included in the denominator and numerator, respectively, of the calculating formula of waste paper pulp combination rate.
Waste sheets	Waste paper shall fall under any of the following: <ul style="list-style-type: none"> - Those generated in the paper making process, and directly returned to the paper making process to be used as a raw material (so-called “circulating waste sheet”. Wet broke and dry broke) - Those stored in a paper making factory or operator and used as a raw material (so-called “stocked waste sheets”) - Those stipulated by the conditional clause in the definition of the pre-consumer waste paper described above.
Paper Manufacturer	“PAPER (142)” listed in the Medium Category of the Japan Standard Industrial Classification (The Ministry of Internal Affairs and Communications Public Notice No. 175 of March 23, 2009), and “Paper (1421)”, “Paperboard (1422)”, “Machine-made Japanese style paper (1423)” and “Hand-made Japanese style paper (1424)” in the Small Category.
Subsidiary, affiliate company, and associated company	Those defined in each section of Article 8 of “Ordinance on Terminology, Forms and Preparation Methods of Financial Statements, etc.” based on the stipulation of Article 193 of the Financial Instruments and Exchange Act (Act No. 25 of 1948).

Terms for wood

Reused/Unused wood	Indicates the following: thinned wood, waste wood, construction waste wood, and less useful wood.
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Thinned wood	: Indicates the following: thinned wood, waste wood, construction waste wood, and less useful wood.
Waste wood	: Wood produced from work activities adjusting the individual density of the objective tree type according to the congested state of forest stand.
Construction waste wood:	: Used wood (used packaging material, etc.), remainder material generated in wood processing plants (shavings generated in plywood and lumber plants, etc, low quality chips not used as raw material for paper, etc.), and wood and wooden materials such as trimmed branches, bark, etc.

Less useful wood	: Abandoned lumber in the forest, shrubs, tree roots, wood obtained from lumber damaged by disease, pests, disasters, bent or small diameter logs, etc. Also includes bamboo cut down in bamboo groves for the purpose of maintenance and management in environment preservation. Small diameter logs measuring less than 14 cm in diameter corresponding to “a” or “b” below must be certified as forests sustainably managed by an independent third party or public organization. a. Small diameter logs from logs felled from natural forests. b. Small diameter logs from logs produced by clear cutting, patch logging, and strip logging in plantation forests. (*Refer Attachment 1, “Products Using Thinned-out Wood, Reused/Unused Wood, etc. Version 2 ” for “sustainably managed forest”
Waste plant fiber	: Agricultural residue generated in harvesting and the manufacturing process such as rice hull, and used packaging material such as jute bag, etc.

Native forests	Strictly speaking, primeval forests. If forests are in the process of returning to native forest conditions and continue to be so in the future even though they were affected by human intervention, they are also called native forests. This also applies to natural forests.
Natural regenerated forests	Similar to natural forests, forests with natural regeneration. They are intended to supply wood and wooden products. Regeneration support activities, fostering activities, etc are provided.
Plantation forests	Forests made by planting, breeding, nursing, etc.
Wooden part	Actual wood (including plant fiber)
Adhesives	Added for adhesive functions required in the manufacture of products. Also includes agents added to bond baseboard with synthetic resin sheets when implementing overlays, and to bond different materials together such as fixtures and metals, etc.
Forest Certification System	Mechanism for a third party organization to evaluate/certify a forest management level of a forest operator based on the standard defined by an independent forest certification organization. (From “Guideline for Verification on Legality and Sustainability of Wood and Products” of Forest Agency (February 15, 2006)
Credit System	System that assumes certified forest wood/thinned wood, etc. are equally used in individual products, based on used amounts of certified forest wood/thinned wood, etc. and other raw materials that were used in entire products manufactured for a certain period of time, irrespective of whether they are actually mixed in the individual products (From “Basic Policy for the Promotion of Procurement of Eco-Friendly Goods and Services”, February 2014).

Terms for plastic (this product category includes synthetic fiber into plastic)

Recycled plastic	Plastic composed of post-consumer material and pre-consumer material
Recycling	Indicates material recycling. Does not include energy recovery, conversion to oil, gasification, blast furnace reduction or conversion to chemical materials by coke oven.
Post-consumer material	Materials or products disposed of after they have been used as goods.
Pre-consumer material	Materials or defective products generated from disposal route of manufacturing process. However, excludes those recycled within the same process as the raw material (same plant).

Plastic	Materials made of single or multiple polymers, additives, fillers, etc. added to give characteristics.
Polymer	Macromolecules which are the main components of plastic.
Recycled polymer fiber	Fibers recycled from synthetic resin or regenerated materials of synthetic resins in a polymer structure using regenerate flakes or pellets.
Chemically recycled fiber	Fibers consisting of polymer from polymerizing monomers obtained by depolymerizing the polymers of regenerated materials of synthetic resin, or synthetic fibers such as nylon and polyester.
Fiber-based recycled fibers	Recycled fibers whose main contents are recovered fibers from recycled polymer fibers or chemically recycled fibers. Although recovered fibers from pre-consumer and post-consumer materials may be considered materials, they shall only be applied in the event of using recovered fibers from post-consumer materials to be recycled. If major materials of regenerated materials, which are put through a series of recycled processes for the formation of fibers are recovered fibers, even when only a part of the regenerated materials include waste plastic, the total amount of regenerated materials included can be considered recovered fiber-based.
Plant-based synthetic fiber	Synthetic fiber whose material is plant-based plastic
Plant-based plastic	Plastic made of bio-based synthetic polymer whose materials are plant. This certification criteria covers polyethylene (PE), polyethylene terephthalate (PET), polylactic acid (PLA) and polytrimethylene terephthalate (PTT).
Bio-based synthetic polymer	“Biobased synthetic polymer” defined in ISO 16620-1 3.1.4 (original: polymer obtained through chemical and/or biological industrial process(es) wholly or partly from biomass resources).
Bio-based synthetic polymer content rate	Content rate of biomass resources in bio-based synthetic polymer which is included in a product (or a designated portion by certification criteria). Means bio-based synthetic polymer content (Original sentence: bio-based synthetic polymer content : amount of bio-based synthetic polymer present in the product) defined by ISO 16620-1 3.1.5

Terms for fiber

Unused fibers:	Fibers using unused materials such as cotton linters, staples produced during spinning (thread that cannot be used as the same grade, or ones that require some processing when used), fibers extracted from waste plant fiber materials (banana fiber, etc.) , etc.
Cotton linter:	Short cotton linters that start to protrude from the plant four to twelve days after flowering
Waste plant fiber material	Unused plant fibers including cane, etc., which are usually wasted, such as agricultural residue generated in harvesting and manufacturing process of crop.
Recovered fibers:	Waste fiber products including used clothing that have become unnecessary. It refers to both "wasted clothing", the used clothing and used cloth material collected from homes and plants. This term also means "wasted fibers", which are generated from manufacturing processes such as thread wastes from a weaving mill and cutting wastes from a sewing plant.

Reclaimed fibers:	Fiber which returned to flocculating fiber by raveling a recovered fiber of pre-consumer and post-consumer material with Rag machines
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Terms for leather material

Eco leather	Leather materials that can meet certain material standards for leather, and that are identified as having less effect on the environment. The JES label of Japan, SG label of Germany, Oeko-Tex, EU eco-label criteria for footwear, etc. are known.
Leather	Full grain leathers (including hair leathers) and split leathers.
Full grain leather	Leathers having a full grain side, where hide cross section structure (grain side layer, reticular layer) is not damaged, tanning is performed, finished/painted film has thickness of 0.15 mm or less, and 70% or more of the cross section structure is made of leathers.
Split leather	Leathers that reuse leathers remaining on the flesh side when the leathers are divided into layers. The split leathers have undamaged leather fiber structure (not fractured), have been tanned, and have the finished/painted film having thickness of 0.15 mm or less, and 70% or more of the cross section structure is made of leathers.

4. Certification Criteria and Certification Procedures

If Eco Mark certified material is used, a “product brand name” and “certification number” of said material that are clearly indicated in the Attached Certificate shall be able to replace a raw material certificate.

4-1. Environmental Criteria and Certification Procedures

4-1-1 Resource Saving and Resource Recycling

<Common>

(1) A key material shall meet the standard content rate of recycled materials listed in Table 1.

However, a shelf in which metal, etc. used is greater than 95% of the product total weight (excluding any sub-material such as an adhesive/paint), storage furniture and fixtures, and any item that does not fall under Appendix 2 shall meet the criteria item (2) instead of this item (1). A mattress in Appendix 2 shall meet the criteria item (3) instead of this item (1).

In addition, instead of this item (1), a product whose key material falls under the plastic material and in which plant-based plastic is used may meet the criteria item (4), a product that is an item that does not fall under Appendix 2 and in which leather is used for 50% of a product outer area may meet the criteria item (22), and a product whose key material falls under wood and in which forest-certified wood is used may meet the criteria item (24).

Table 1 Standard content ratio of recycled material

Name of key material	name of recycled material	standard content rate
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paper	Waste paper pulp	70% or more
wood	Reused/unused wood	30% or more
plastic	Post-consumer material, pre-consumer material	15% or more*

* When a post-consumer material is used, the standard content rate shall be 10% or more.

[Certification Procedure]<For waste paper pulp>

Certificates of a percentage (mass percentage) of waste paper in the pulp mixture and manufacturing process/management certificates indicating the name of manufacturers in each manufacturing process shall be submitted.

A paper quality certificate issued by a paper manufacturer and indicating a percentage of waste paper pulp (a specific numeric value to be guaranteed at minimum) including the following items shall be submitted.

- 1) Thorough management at a manufacturing plant (by specifying the percentage of waste paper pulp of Eco Mark products in a written technical standard (quality standard), etc.), conducting internal audit on “Checklist for Verification System of Percentage of Waste Paper Pulp” (April 2, 2008, Japan Paper Association) or according thereto the percentage of waste paper pulp by a paper manufacturer
- 2) Clear indication of names of those who are in charge of manufacturing or quality control of Eco Mark products at a manufacturing plant

<For reused/unused wood>

Certificates of a percentage (mass percentage) of reused/unused wood and a manufacturing process/management certificates indicating the name of manufacturers in each manufacturing process shall be submitted. A certificate issued by a raw material vendor, certifying that the raw material is reused/unused wood shall also be submitted.

If using thinned wood as the material, a certificate of origin that includes information on the place of production, type of tree, and year of planting shall be submitted with photographs of the forest concerned (showing clearly that the forest stand has been thinned). The thinning percentage and how many times the forest stand has been thinned, including the most recent thinning shall also be indicated if possible.

If using less useful wood, the following information shall be submitted.

- Type of forest (natural or plantation, etc.), place of production, type of tree, and year of tree planting if plantation.
- Under what conditions was the wood produced (damaged by disease/pests, damaged by disaster, bent or narrow trees, etc.). For small-diameter log, indicate logging method and tip end diameter.

In addition, for a small-diameter log applicable to a. or b. in Terminology, documents indicating that the forest has been certified as sustainable by a third party shall also be submitted.

If using bamboo for the raw material, a description that felling was carried out for appropriate maintenance and management in environment preservation shall be made.

For the product using Eco Mark certified product under product category No,111 “Board Made of Wood or the Like Version2”, the product name and certification

number of the relevant product can be indicated in the Application Form for Certification and Use of the Eco Mark in place of a statement certifying conformity with the certification criteria.

Note that the calculation of mass ratio shows the proportional mass of the product or each material in an air dried state*1 or at the point of constant weight*2 at a temperature of 20±2°C and humidity of 65±5%.

*1: Indicates leaving in a well-ventilated room for seven days or more.

*2: Change is less than 0.1% when the weight is measured every 24 hours

*1 is not applicable in the case of using lumber and log. However, it is applicable in the case of using wood which is equivalent to the criteria of percentage of water content (15% and below), among the international official criteria of percentage of water content for dried wood.

<For recycled plastic>

Certificates of mass percentage of recycled plastic and manufacturing process /management certificates indicating the name of manufacturers in each manufacturing process shall be submitted. In addition, a raw material certificate issued by the recycled material collector shall be submitted. For synthetic fibers, the certificate the same as 4-1-1(3) shall be submitted. In addition, a raw material supply certificate issued by a recycled material dealer shall be submitted. For synthetic fiber, a certificate similar to 4-1-1(3) shall be submitted.

- (2) A product in which metal, etc. is used more than 95% of the entire product mass (excluding a sub-material such as an adhesive/paint, etc.) shall meet all the requirements listed in a) to d) below.
- a) When compared with a conventional product, the product shall reduce usage of raw materials and save weight/reduced volumes (reduce-consideration design) of components/members, and use recyclable materials (recycling-consideration design). Specifically, the product shall meet the requirements listed in the check list in Appendix 3.
- b) For a shelf board of a storeroom (excluding any special purpose such as a storage rack for medical records, etc.) or a shelf (bookshelf/light-duty shelf/medium-duty shelf), load per one shelf board shall be 10 times or more than the shelf board mass.
- c) For the product, a value of the single material decomposable rate determined with the following calculating formula shall be 90% or higher. For products, the single material decomposable percentage found from the following calculation formulae shall be not less than 90%.

Single material decomposable percentage (%)

= number of components decomposable to single material / number of product components x 100

Components which come under any of the following shall not be included in

components subject to computation of single material decomposable percentage.

- [1] Components that prevent a robbery, a possible fall in earthquakes and operation (locks, components of fall-prevention mechanism, stable maintenance components, etc.)
- [2] Components that hold portions which may cause overhang from the main body from the viewpoint of component fall prevention (hinges, drawer rails, etc.)
- [3] Accessory screws used for fixing or connecting components covered by Japanese Industrial Standard or its equivalents.

d) Manufacturers or sales dealers (including industry organizations) shall provide recovery and recycling systems for the product under application and corresponding information. Moreover, at least 90% in weight of the collected product must be materially recycled.

[Certification Procedure]

- a) The applicant or manufacturer shall submit the reduce/recycling-consideration design check list in the entry table H and attached materials thereof.
- b) The applicant or manufacturer shall state the shelf board mass and shelf load capacity in the Attached Certificate and submit it.
- c) The applicant or manufacturer shall state the number of components that can be decomposed to a single material, the number of product components, and the single material decomposable rate and submit them.
- d) A separately attached certificate and materials shall be submitted

(3) For mattress, fibers used in padding shall meet the reference combination ratios listed in Table 2 below:

Table 2 Standard content rate

Target material	Material name	Standard content rate
Polyester fiber	Polymer recycled fiber or chemically recycled fiber	50% or higher (in the mass of fiber part)
	Plant-based synthetic fiber (those conforming to the certification criteria (4)b)c))	25% or higher, and the bio-based synthetic polymer content shall be 10% or higher (in the mass of fiber part)
Felt (excluding any binding due to a thermoplastic material and adhesive)	Unused fiber or reclaimed fiber	100% (in the mass of felt part)

[Certification Procedure]

The applicant or manufacturer shall submit a certificate indicating the mass ratio of the entire product. The applicant or manufacturer shall submit a raw material certificate that describes details of unused/recycled raw materials issued by a fiber material supplier, a method for reproduction, content rate, method for management, etc. In the case of plant-based synthetic fiber, the applicant or manufacturer shall submit a certificate similar to 4-1-1(4).

- (4) A product whose key material is plastic material and in which plant-based plastic (including plant-based synthetic fiber) is used shall meet all the requirements listed in a) to c) below. However, when the criteria item (1) is selected, this item shall not apply.
- a) The bio-based synthetic polymer content in plastic shall be 10% or higher, and the mass ratio of the plant-based plastic shall be 25% or higher.
 - b) The Applicant shall have the understanding of the supply chain from cultivation of plant materials to manufacturing of plant-based plastic (raw resin). Each process shall conform to the checklist in the Appendix 4.
 - c) The Applicant shall have confirmed by the life cycle assessment (LCA) that for the plant-based plastic (raw resin), greenhouse gas emissions (CO₂ conversion) from raw material procurement to discarding/recycling does not increase, when compared with conventional resin that is to be replaced. Note that if any increase in the emissions is offset by the reliable carbon offset (such as purchasing clean electric power, etc.), the applied product shall also conform to this item.

[Certification Procedure]

- a) Certificates indicating the calculated content of biobased synthetic polymers in the product shall be submitted. For the plant-based plastic (raw resin) thereof, measurement results of the biobased synthetic polymer content calculated with the method specified in ISO 16620-3, using measurement results of the biobased carbon content and element composition by the 14C method specified in ISO 16620-2 or ASTM D6866 shall be mentioned. Should there be any deviation of 10% or higher between the measurement results and the content of biobased synthetic polymer in the standard, a description of a reason(s) therefor shall also be included. The measurement results of the biobased carbon content shall be submitted as an attached document.
In addition, for appropriate maintenance of the content of biobased synthetic polymer after certification, any of the following certificates issued by a raw resin supplier (including a dealer) shall be submitted.
 - An explanatory document stating that measurements of the content of biobased carbon will be regularly carried out, and that measurement results can be disclosed as per a request of the Eco Mark Office; and
 - A certificate that the Applicant has been audited or certified by a third party for management of the content of the biobased synthetic polymer.
- b) Certificates issued by a raw resin supplier (including a dealer) indicating the supply chain (flow diagram, etc. and including purification, fermentation, etc.) from the cultivation area (country, state, city, etc.) to manufacturing of plant-based plastic (raw resin), and status of conformance to the Attachment 2 shall be submitted.
- c) Results of the LCA assessment of the plant-based plastic (raw resin) shall be submitted (reference to the existing paper, etc. is acceptable). If carbon offset is adopted, data describing content of the carbon offset and reliability shall be submitted together.

<Common>

- (5) A supply period of a service part or consumable part shall be 10 years or longer after

production of said product stops. However, this item shall not apply to any product only composed of a single member (for example, a plastic molded part, etc.).

[Certification Procedure]

Conformance to this item shall be stated in the Attached Certificate. In addition, a copy of the corresponding part of the instruction manual, leaflet, web site, etc. that clearly states this matter shall be submitted.

<Common>

(6) The repair commissioning system shall be arranged, so that repair services are provided as per a request from a user (repair system). As the arrangement of the system, the following a) and b) shall be met. This item shall not apply to any product only composed of a single member (for example, a plastic molded part, etc.). .

a) Information that a repair is commissioned has been provided. .

b) Information on a range or repairs (description of the services), a contact address, etc. has been provided.

[Certification Procedure]

Conformance to this item shall be stated in the Attached Certificate. In addition, a copy of the corresponding part of the instruction manual, leaflet, web site, etc. that clearly states this matter shall be submitted.

<Common>

(7) A product shall make it possible to sort metal, a key material, etc., so that it can be easily recycled. However, in consideration of safety, etc., any component that is required not to be easily sorted shall be excluded. In addition, for product packaging, consideration shall be given to resource saving and recyclability.

[Certification Procedure]

A product design document describing a method for sorting or an explanatory document shall be submitted. If there is any component that is required not to be easily sorted shall be excluded in consideration of safety, etc., the explanation to that extent shall be provided. Wrapping materials for the product and raw materials thereof shall be specifically described (A supplement may be given with drawings/photographs, etc.).

<Key material is a plastic material (excluding synthetic fiber)>

(8) The product has a type of plastic indicated on components so that it can be easily recycled. To indicate a plastic type, symbols in JIS K6899 or ISO 1043-1 shall be used and a plastic type shall appear on any components that weigh 100 g or more. This item shall not apply to any component for which the indication is technically difficult.

[Certification Procedure]

A list of components on which a plastic type is indicated shall be submitted (a drawing on a type indication may also be acceptable).

4-1-2 Prevention of Global Warming

<Common>

- (9) No fluorocarbons (the substances listed in the Act on Rational Use and Proper Management of Fluorocarbons, Article 2, Section 1) shall be used in a blowing agent. .

[Certification Procedure]

A substance name of a blowing agent to be used shall be stated in the Attached Certificate and a safety data sheet (SDS) on the substance to be used shall be submitted.

4-1-3 Restriction and Control of Hazardous Substances

<Common>

- (10) 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 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).

<Common>

- (11) Plastic materials used for product packaging shall not be added with polymers including halogens, and organic halogenides shall not be added to products as prescription constituents. For the product contains polymers including halogens and organic halogenides as prescribed constituents, at least 70% of the plastic part of the product after use shall be recovered. Furthermore, at least 70% of such recovered plastic part shall be directed to material recycling. This item shall not apply to any product whose duration of service is assumed to be 20 years or longer, colorants, fluorinated additives, flame retardants, adhesives, and electric components such as an outlet.

[Certification Procedure]

Packaging materials for the product and raw materials thereof shall be specifically described (A supplement may be given with drawings/photographs, etc.). In addition, the Attached Certificate shall state that any polymer containing halogen and organic halogen compound is not added to a plastic material used as prescription constituents in the product and packaging thereof. For a certificate of recovery/recycling system, a certificate similar to the certification criteria 4-1-1(2)d shall be submitted. In addition, for any product whose duration of service is assumed to be 20 years or longer, an explanatory document that serves as a ground thereof and describes the service life and use records (of a similar product may be acceptable), etc. shall be submitted.

<Common>

- (12) The product shall not contain Polybrominated biphenyl (PBB), Polybrominated diphenylether (PBDE) or short-chain chlorinated paraffin (the number of chained C is 10 to 13 and contained chloride concentration is 50% or over) as prescribed constituents when flame retardant is used. In addition, (Pb)-based chemical compounds, cadmium (Cd)-based chemical compounds, tributyl tin compound (TBT), triphenyl tin compound (TPT), dibutyl tin compound (DBT), diphenyl tin compound (DFT), and monophenyl tin compound (MFT) shall not be added as prescribed constituents.

The product shall not use antimicrobial agents as far as possible. In the case of using any antimicrobial agent, the product shall have the certification such as the SEK mark of Japan Textile Evaluation Technology Council, or SIAA Mark of Society of Industrial technology for Antimicrobial Article, etc.

[Certification Procedure]

The applicant shall state the status of conformance to this item in the Attached Certificate. If a flame retardant is used, the applicant shall submit a document stating a name of a chemical substance. If an antibacterial agent is used, the applicant shall submit a copy of the certificate.

<Common>

- (13) A paint used in the product shall have no heavy metal stipulated in Appendix 5 added as a prescription constituent.

[Certification Procedure]

A list indicating presence or absence of addition of the corresponding substance shall be submitted

<Common>

- (14) An adhesive used for indoor furniture (including an adhesive supplied with furniture that is sold on the assumption that a user assembles it) shall meet the VOC emission speed reference value listed in the VOC emission speed standard (Voluntary Standardization Committee for VOC Emission Speed from Construction Materials) of Appendix 6. Alternatively, the content of each of four substances (toluene, xylene, ethylbenzene and styrene) in an adhesive shall be less than 0.1% (mass ratio).

[Certification Procedure]

Regarding emission of four VOCs, test results followed by JIS A 1901 “Measuring methods for emission of volatile organic chemicals (VOC), formaldehyde and other carbonyl compounds—small chamber method” conducted by a third party testing body or an own company, or a document that can ensure through the registration system of a related organization that the four VOC compounds are not added, or in an SDS, etc. that the content of four VOC compounds is less than 0.1% (mass ratio)

<Common>

- (15) An adhesive and paint used in indoor furniture or indoor furniture (component) in which an adhesive and paint are used shall conform to any one of the following a) to c) for emission of formaldehyde. However, if paint with F**** grade cannot be used, the applicant shall set enough curing period after painting and confirm that the product is equal to “F four stars” grade at the time of shipment.
- a) The product shall be rated “F four-stars” under the applicable JIS standards or the JAS standards.
 - b) The formaldehyde emission is not more than 0.3 mg/l on average and not more than 0.4 mg/l at maximum, as measured pursuant to JIS A 1460 “Test method for formaldehyde emission of building boards—desiccator method.”
 - c) The formaldehyde emission rate is no higher than 5mg/(m²·h), as measured pursuant to JIS A 1901 “Measuring methods for emission of volatile organic chemicals (VOC), formaldehyde and other carbonyl compounds—small chamber method.”

[Certification Procedure]

The Attached Certificate shall state whether or not an adhesive or paint is used in a material or the product. Note that if the adhesive or paint is used, the conformance shall be demonstrated with any one of the methods listed in a) to c) below.

If the adhesive or paint conforms to a), a document or a copy thereof demonstrating that the indication of F**** according to the JIS standard or JAS standard is approved shall be submitted. In addition, when the adhesive or paint conforms to b) or c), a result of a test carried out according to the method defined in JIS A1460 or JIS A 1901 by a third-party organization or an own company shall be submitted. However, for any powder paint or paint that falls under JIS and is not covered by

the announcement target of the Building Standards Act, certification thereof or a copy of the certification can be submitted, which then replaces test results. If paint with F**** grade cannot be used, a document explaining that the applicant sets enough curing period after painting and confirms that the product is equal to “F four stars” grade at the time of shipment shall be submitted.

<A key material is wood>

- (16) Wooden materials used for indoor furniture (engineering wood) shall not emit formaldehyde, shall be rated as F**** grade of the formaldehyde emission criteria prescribed in JIS and JAS, or products equivalent to this shall be used.

[Certification Procedure]

A certificate similar to 4-1-3(15) shall be submitted.

<A key material is wood>

- (17) A paint used for indoor furniture shall meet the VOC emission speed reference value listed in the VOC emission speed standard (Voluntary Standardization Committee for VOC Emission Speed from Construction Materials) of Appendix 6. Alternatively, the content of each of four substances (toluene, xylene, ethylbenzene and styrene) in a paint shall be less than 0.1% (mass ratio).

[Certification Procedure]

Regarding emission of four VOCs, test results followed by JIS A 1901 “Measuring methods for emission of volatile organic chemicals (VOC), formaldehyde and other carbonyl compounds—small chamber method” conducted by a third party testing body or an own company, or a document that can ensure through the registration system of a related organization that the four VOC compounds are not added, or in an SDS, etc. that the content of four VOC compounds is less than 0.1% (mass ratio)

<A key material is wood>

- (18) When products contains wood preserving agents (wood termicides, preservatives, pesticides, and fungicides) as prescription constituents, the wood preservatives used shall be those approved by Japan Wood Protection Association.

[Certification Procedure]

When the product contains such preservatives, a certificate to show that these agents have been certified by the Japan Wood Protection Association shall be submitted.

<A key material is wood>

- (19) For products using lumber from dismantled buildings (wood and wooden materials disposed in dismantling), materials subject to preservatives, termicides, and pesticides shall be differentiated and eliminated. The content of harmful substances in these products shall meet the requirements for hexavalent chromium and arsenic given in Attachment 4, which is provided by the detailed enforcement regulations of the Soil Pollution Control Law (Environment Ministry Ordinance No. 29 in 2002,).

[Certification Procedure]

When building dismantled waste wood is used, a certificate that the building dismantled waste wood subjected to antiseptic/anti-termite/insect repelling treatment is sorted or that no such building dismantled waste wood is used (operating manual, process flow, etc.) shall be submitted. In addition, test results by a third-party organization or own company, etc. shall be submitted.

<A key material is plastic (excluding synthetic fiber)>

- (20) A plastic component shall meet the content standard value of heavy metal defined in Appendix 7.

[Certification Procedure]

A document describing a control method for meeting the reference value of heavy metal shall be submitted.

In addition, for any plastic component in which recycled material is used, test results on heavy metals conducted by a third-party organization or own company shall be submitted. A testing method shall conform to the revised RoHS directive.

<A key material includes fiber (including artificial leather, and synthetic leather) of plastic materials> *unused fiber, etc.

- (21) Fiber used in the product shall meet all the requirements of a) to c) below.
- a) Adequate consideration shall be given so that various processing of products (mildew proofing, fluorescent whitening, flame retarding, softening, sanitation, antimicrobial finishing, product bleaching) is limited to a necessity minimum, products will not be subjected to excessive processing, and that use of any processing agent that is suspected to affect safety to human body should be refrained voluntarily. Also, standard values in Table 8 shall be met.
 - b) The amount of free formaldehyde in a product shall conform to a standard value in Table 9. The product rated F four star grade (the formaldehyde emission rate is no higher than 5mg/(m²·h)) is acceptable. However, this item does not apply to a product installed outside the buildings.
 - c) For a dye and pigment to be used in the product, dyes and pigments and chromium listed in 1), 2), and 3) of Table 10 shall not be added as a prescription constituent.

[Certification Procedure]

a) In addition, the applicant or the manufacturer shall submit a certificate indicating the processing or non-processing of the product. If a type of processing or chemical agent that is being considered is made or used, a safety data sheet which confirms the non-use of the substance in Table 8, or a certified document of the test results, etc. shall be submitted.

b) For amount of free formaldehyde, test result by a third-party testing organization or an applying company itself or a copy of product's F four star certificate shall be submitted.

c) A certificate of non-use or test results issued by the dye plant (including spin-dyeing and printing) shall be submitted. If the non-use of dyes, pigment and chromate stipulated in 1), 2) and 3) of Table 10 at each phase of the supply chain in relation to fiber materials excluding small accessories is confirmed by complying with voluntary standards (Japan Textile Federation), regarding the

non-use of hazardous substances on fiber products and management is implemented by clarifying traceability, a certificate (including a sample of the confirmed documents), which describes the management method issued by the applicant or the manufacturer is acceptable.

<Leather>

- (22) A leather material that does not fall under Appendix 2 and in which leather is used for 50% of the outer area of the product shall meet all the requirements from a) to g) below. However, if the criteria item (1) is selected, this item shall not apply.
- a) Leather material used for products shall be calf and cow leather, pig leather, sheep leather, horse leather or goat leather, and at the same time, by-products of meat (foods).
 - b) Leather material shall be free of any abnormal smell such as mold, fish, petroleum, aromatic substance, etc. "To be free of any abnormal smell" means that the results of the odor test measured by a 5-grade functional panel method (German Industrial Standard DIN10955 or Swiss National Standard SNV195651) shall be grade 3 or lower.
 - c) The elusion of formaldehyde shall conform to the standard values prescribed in Appendix 9 for each applicable product.
 - d) The elution of heavy metals shall conform to reference values prescribed in Appendix 11 for each applicable product
 - e) The elution of pentachlorophenol (PCP) shall conform to the standard values prescribed in Appendix 12 for each applicable product
 - f) The elusion of carcinogenic aromatic amines that are generated from decomposed Azo dyestuff prescribed in Appendix 13 (1) shall conform to the standard values in Appendix 14. In addition, carcinogenic dyestuffs listed in Appendix 13 (2) shall not be added as prescription constituent.
 - g) Color fastness to rubbing shall conform to the reference value for each type of finishing and color density of the leather prescribed in Appendix 15.

[Certification Procedure]

For a leather material that has received the JES label certification operated by Japan Leather and Leather Goods Industries Association, submission of a copy of the certificate of the JES label can replace the following certification. For a leather material certified by JES label which is administered by Japan Leather and Leather Goods Industries Association, submission of a copy of a JES label certificate can replace the required certification below.

- a) The raw material certificate which tanners issue shall be submitted.
- b) For the odor from leather materials, test results by a third-party test institute shall be submitted.
- c) With respect to the elusion of formaldehyde, test results by a third-party test institute shall be submitted.

- d) With respect to the elution of heavy metals, test results by a third-party test institute shall be submitted. In addition, if leather materials are different only in colors although they have been processed in a same manner (in a same process and with a same chemical), lead, cadmium, cobalt, and chrome that are associated with color materials shall be tested for each color.
- e) With respect to elusion of pentachlorophenol (PCP), test results by a third-party test institute shall be submitted.
- f) With respect to elusion of carcinogenic aromatic amines, test results by a third-party test institute shall be submitted. In addition, the certificate that carcinogenic dyestuff is added to the leather material as a prescription constituents issued by tanners shall be submitted.
- g) With respect to color fastness to rubbing, test results by a third-party test institution shall be submitted. In addition, if leather materials are different only in colors although they have been processed in a same manner, they shall be tested for each color.

4-1-4 Conservation of Biodiversity

<Common>

- (23) If paper (virgin pulp) and wood are used as the material, the raw wood shall be harvested in legally appropriate procedure consistent with the forest laws of timber producing countries or regions. However, this item is not applicable for waste wood, construction waste wood or less useful wood.

[Certification Procedure]

A certificate shall be submitted to prove that the timber whose legality has been verified* in accordance with “Guideline for Verification on Legality and Sustainability of Wood and Wood Products” of Forestry Agency has been in custody to be separated by the applicant or the paper manufacturer and is supplied to the applied products. At the same time, the applicant or the paper manufacturer who issues the above certificate shall submit any of the following certificates:

- 1) Certificate that the applicant or the paper manufacturer has been assessed and authenticated by the CoC (Chain of Custody) Certification System;
- 2) Certificate of the authorized company (that guarantees the association member’s adequate way of supplying wood and wood products verified with legality, etc.); and
- 3) Code of management practice which stipulates the way of custody to manage wood and wood products verified with legality (the method in the case that the timber verified with legality only is handled. The same applies to hereunder), retention of certificates for a predetermined period, etc.

In the event that Item 2) or 3) above is chosen and the certificate is submitted, the applicant, the paper manufacturer or the material supplier who issues the above-mentioned certificates shall publicly announce through its Web site the code of management practice prescribed by the association concerned in the case of Item 2) and shall prescribe and publicly announce through its Web site the code of management practice concerning the scheme to assess and guarantee the system for

separative management, document management for retention of certificates for a predetermined period, etc. in the case of Item 3).

*Confirm the certificate issued by the related company closest in commercial process, which at least verifies that wood and wood products they supply are with legality and under separative custody management.

<A key material is wood>

(24) If a key material is wood and forest certified wood is used, product mass of forest certified wood which has been certified by a third party shall be equal to or higher than 70%. The mass percentage may be the certification method according to the credit method. However, when the criteria item (1) is selected, this item shall not apply.

[Certification Procedure]

The certificate of the mass percentage of the forest-certified wood and the certificate that the product has been forest-certified by the third party shall be submitted.

4-1-5 Information Provision to users

<Common>

(25) Information on the content of a) and b) listed below shall be provided to users through the instruction manual, leaflet, web site, etc. In addition, it is desirable that the information is provided in such a way that a consumer can refer to it when purchasing the product.

a) Information on measures against the sick building syndrome that can be taken by a user himself/herself (such as strict observation of proper ventilation) (this only applies to a product using paint, adhesive, or wooden material (engineering wood)).

b) Information on appropriate method for using the product, maintenance, etc.

[Certification Procedure]

Compliance with this item shall be stated in the Attached Certificate. In addition, a copy of the corresponding part of the instruction manual, leaflet, web site, etc. that clearly states this matter shall be submitted.

4-2. Quality Criteria and Certification Procedures

<Common>

(26) The product quality and safety shall conform to appropriate quality standards .of Japanese Industrial Standard, etc.

[Certification Procedure]

Test results based on the quality standard (also including dimensions) such as Japan Industrial Standard or a document stating that the applicant has been certified as a JIS mark carrying operator shall be submitted. Or, test results based on the own company's criteria shall be submitted.

5. Considerations

In the process of manufacturing products, it is desirable to consider the following items, although they are not requirements for certification. Compliance with each item shall be indicated in the Attached Certificate

- (1) The product package (one sales unit to the end consumer) shall give consideration to the resource saving and resource circulation and conform to the following items:
 - a. The paper material shall have the percentage of waste paper in the pulp mixture of 70% or higher; and
 - b. The plastic material shall have the mass percentage of recycled plastic of 50% or higher.
- (2) Consideration shall be given to the environmental load of transportation and delivery of materials, etc., and depending on a material to be used, locally produced materials, etc. shall be positively used and efficient transportation shall be in place.
- (3) LCA shall be implemented on the product and the environmental load reduction effect shall be confirmed. In addition, a result thereof shall be published.
- (4) The recovery/recycling system of products after use shall be built.
- (5) Designing shall be such performed that partly replacement of/addition to the product or components can enhance the product capability.

6. Product Classification, Indication and Others

- (1) Product classification (application classification) shall be on the basis of the medium classification in Appendix 1 or Appendix 2, the key material, criteria items to be selected ((1)(2)(3)(4)(22)(24)), and the product name. However, no classification by tone of color or being large or small shall be performed.
- (2) For any product that falls under the specific procurement item of “Laws Concerning the Promotion of Procurement of Eco-Friendly Goods and Services by the State and Other Entities” (Green Procurement Law), status of conformance to the judgment criteria shall be released on the web site of the Eco Mark Office.
- (3) In principle, Eco Mark shall be indicated on the product main body, etc. For an indication method, “Guide to Eco Mark Usage” shall be followed and the type B indication shall be performed. In addition, when application for Eco Mark product

certification/usage is made, a location to indicate Eco Mark and content of the indication shall be submitted. Note that an Eco Mark license holder that has already held the Eco Mark product may also indicate the type A.

The type B indication shall state the certification information including the following (1) to (3) adjacent to the mark. Note that when certain conditions are met in accordance with “Guide to Eco Mark Usage”, indication of only the mark may be accepted.

- (1) The statement of “Eco Mark” or a designation of being Eco Mark product that is defined in “Guide to Eco Mark Usage”, Section 7.
- (2) The statement of environment information indication (see below.)
- (3) Indication of Eco Mark certification number and license holder name (It is also acceptable to select and indicate either one of them.)

For the environment information indication, the following shall be stated according to a recycled material to be used: “Percentage of waste paper in the pulp mixture ○ ○% (or “○○% or higher”. This applies to all ○○% indications hereinafter.)”, “Reuse ○○% of Thinned wood/Waste wood (*State a name of a type of Reused/Unused wood defined in “3. Terminology, Terms for wood”)), and “Reuse of Plastics ○○%”. If more than one recycled material is used, “Use of Recycled Material ○○%” shall be stated in the first column, and a name of the recycled material(s) in use shall be stated in the second column (up to top two types in the larger mass ratio order) (For the ○○%, state the mass ratio of the recycled material in the key material and round off to the closest whole number. If numeric values of the mass ratio differ in the same product classification, the lowest value in the same product classification shall be stated. In addition, ○○% may be set to a numeric value that can be easily handled with the reference value as a lower limit. This shall apply to all ○○% indications hereinafter).

For a metal product that falls under 4-1-1(2), “To be collected/recycled after use” shall be stated.

For mattress, 4-1-1(3), “Recycled PET fiber (or any corresponding fiber name such as unused fiber) ○○%” shall be stated. For a product that uses plant-based synthetic fiber, “Plant-based synthetic fiber ○% (bio-based synthetic polymer content ○%)” shall be stated. For the ○%, the bio-based synthetic polymer content and combination ratio of the plant-based synthetic fiber in the fiber part mass shall be stated.

For a product that uses plant-based plastic falling under 4-1-1(4), “Plant-based plastic ○○% (bio-based synthetic polymer content ○%)” shall be stated. For the ○%, the combination ratio of the plant-based plastic in plastics and the bio-based synthetic polymer content in plastics shall be stated. Note that the “plant-based plastic” may be replaced by a polymer type name (such as “plant-based PET”).

For a product that falls under 4-1-3(22) and uses a leather material, “Leather that meets the standard of harmful chemical substances is used” shall be stated.

For a product that falls under 4-1-3(24) and uses forest-certified wood,

“Forest-certified wood ○○%” shall be stated. Note that in the case of the certification system based on the credit method, there is no need to state ○○%.

Only in the case of certification products under No.130 “Furniture Version 1” (established on July 1, 2004), it shall be accepted to indicate the environmental information and certification number as before, even in the environment indication below the mark of this product category.

Examples are shown below. (Japanese only)

[B type indication]

	<p>エコマーク商品 古紙パルプ配合率○○% 12345678 ○○○株式会社</p>		<p>エコマーク商品 廃木材の再利用○○% 12345678 ○○○株式会社</p>
	<p>エコマーク商品 プラスチックの再利用○○% 12345678 ○○○株式会社</p>		<p>エコマーク商品 再生 PET 繊維○○% 12345678 ○○○株式会社</p>
	<p>エコマーク商品 植物由来プラスチック○% (バイオベース合成ポリマー含有率○%) 12345678 ○○○株式会社</p>		<p>エコマーク商品 森林認証材○○% 12345678 ○○○株式会社</p>
	<p>エコマーク商品 使用后回収・リサイクルされる 12345678 ○○○株式会社</p>		<p>エコマーク商品 有害化学物質等の基準 を満たした革を使用 12345678 ○○○株式会社</p>

Established: June 1, 2016 (Version 2.0)

Revised: February 1, 2017 (Version2.1)

Revised: September 1, 2017 (Version2.2)

Revised: March 1, 2018 (4-1-4(23), Version2.3)

Expiration date: May 31, 2023

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

Appendix 1 Applicable furniture

Omitted. Refer the Japanese list below.

大分類	中分類
たんす	和たんす
	整理たんす
	洋たんす
	整理たんす(チェスト)
戸だな	飾り戸だな(すみ(隅)だなを含む。)
	書籍戸だな(本箱を含む。)
	サイドボード(カップボード)
	食器戸だな(水屋、はえ帳を含む。)
	茶だな(茶だんす)
	整理戸だな類
	陳列戸だな
	げた箱
	その他戸だな
	たな
飾りだな	
陳列だな	
整理だな	
その他のたな	
箱	衣類整理箱
	縫製箱
	がん(玩)具箱
	レコードキャビネット
	事務用整理箱
	その他の箱
フォノキャビネット	ラジオキャビネット
	テレビキャビネット
	ステレオキャビネット
	その他のフォノキャビネット
机	座机
	立机
	学校用机
テーブル(卓子)	座卓
	立卓
鏡台	一面鏡台
	三面鏡台
	姫鏡台
	姿見(脚付き)
	壁掛け鏡
	ドレッサー
	その他鏡台
台	調理台
	配ぜん(膳)台

大分類	中分類
	流し台
	ガス台
	作業台
	実験台
	陳列台
	売場台(カウンターを含む。)
	その他の台
いす(椅子)及び腰掛け	ソファ(1人用ひじなし)
	スツール
	座いす
	小いす
	ひじ掛けいす(ソファを含む。)
	長いす(ソファベンチを含む。)
	寝いす(安楽いすを含む。)
	乳幼児用いす
	特殊用途いす
ベッド	普通ベッド
	ハリウッドベッド
	二段ベッド
	ベビーベッド
	スタディベッド
	コンバーチブルベッド
	特殊用途のベッド
	ベッド用部品
	その他のベッド
マットレス(運動用を除く)	スプリングマットレス
	フォームマットレス
	ウォーターマットレス
	その他のマットレス(運動用を除く。)
ロッカー	更衣用ロッカー
	物品用ロッカー
器物台	花器台
	植木台
	電話台
	置物台
	テレビ台
	囲碁・将棋盤用の台
	見台
	その他の器物台
衣こう(桁)つい(衝)立及びびょうぶ(屏風)	衣こう(桁)つい(衝)立及びびょうぶ(屏風)
帽子掛け及びかさ(傘)立	帽子掛け及びかさ(傘)立
ベビーサークル及び揺らん	ベビーサークル及び揺らん
サービスワゴン	木製サービスワゴン
	金属製サービスワゴン
	その他のサービスワゴン
本立(ブックエンドを含む)及びマガジンラ	木製本立(ブックエンドを含む。)及びマガ

大分類	中分類
ブック	ジンラック
	金属製本立(ブックエンドを含む。)及びマガジンラック
	その他の本立(ブックエンドを含む。)及びマガジンラック
黒板	黒板
教壇及び演壇	教壇及び演壇
ふみ台	ふみ台

Appendix 2 Designated Procurement Items of Green Procurement Law
Omitted.

大分類	中分類
いす	回転いす
	折り畳みいす
	固定いす
	教室用いす
	特殊いす
机	机
	テーブル
	カウンター
	台
棚	書架
	物品棚
	移動棚
	その他
収納用什器	システム収納
	キャビネット
	ロッカー
	小型の収納
	ワゴン
ローパーティション	システム型製品
	自立型製品
コートハンガー	コートハンガー
傘立て	傘立て
掲示板	壁掛式
	自立式
黒板	壁掛式
	自立式
ホワイトボード	壁掛式
	自立式
ベッドフレーム	ベッドフレーム
マットレス	マットレス

Appendix 3 Checklist for reduce/recycle consideration design

No.	objective	item	requirement
1	Rational use of raw materials, etc.	Is consideration given to adoption of light-weight components, etc.?	
2	Promotion of long-term use	Is consideration given to adoption of a component with high durability or a component that allows long-term use?	
3		Is consideration given to facilitation of repairs or facilitation of replacement of components, etc., through sharing of components among different models?	
4	Contrivances of raw materials	Is consideration given to use of a raw material that can be used as a recyclable resource?	
5		Is consideration given to reduction of the number of types of raw materials used in components, etc.?	
6		Is consideration given to reduction of the number of components in which a raw material that can be utilized as a recyclable resource is difficult to separate from other raw materials?	
7	Contrivances of a structure	Is consideration given to reduction of the quantities of screws?	
8		Is consideration given to a joining method capable of easily separating a component, etc. of a raw material that can be utilized as a recyclable resource from a component of other raw materials and to facilitation of removal of a component, etc.?	
9		Is consideration given to facilitation of recovery and transportation?	
10		Is consideration given to indication of a material name of a synthetic resin component which weighs 100 g or more, etc., or other contrivances for sorting?	
11	Advance evaluation	Have said evaluation items, evaluation criteria, and evaluation method been defined?	Submission of an evaluation standard of No. 1 to No. 10, etc.
12		Were necessary records taken when performing said evaluation?	Submission of a document evaluating No. 1 to No. 10, etc.
13	Provision of information	Is information on a structure, a removal method of components, etc., a material name of component, etc. provided?	Submission of a copy of a corresponding part in the instruction manual, etc.

Appendix 4 Checklist of Traceability of Plant-based Plastic (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 forests in the recent ten years?	Farm land	<input type="checkbox"/> Yes/ <input type="checkbox"/> No	<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 engineered 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 (Not used)	<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.)
3	Prevention of land acidification/nutrient enrichment/water contamination	Has the Applicant gained the understanding of usage conditions of fertilizers/agricultural chemicals in the main cultivation area of plants? Isn't any agricultural chemical regulated under the "Stockholm Convention on Persistent Organic Pollutants" (POPs Treaty) used?	Farm land	<input type="checkbox"/> Yes/ <input type="checkbox"/> No	<input type="checkbox"/> Confirmed the laws and regulations concerning fertilizers/agricultural chemicals 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.):
4	Appropriate water usage	Has the Applicant gained the understanding of usage conditions of water in the main cultivation area of plants?	Farm land	<input type="checkbox"/> Yes/ <input type="checkbox"/> No	<input type="checkbox"/> Confirmed the laws and regulations concerning usage of water (limits on the amount of water) 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 plant-based 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 biogas (such as methane) having a high global warming potential that is generated in the course of reaction of plant-based ethanol in the manufacturing plant for the main crude raw material?	Crude raw material manufacturing plant	<input type="checkbox"/> Yes/ <input type="checkbox"/> No	<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	If a plant is newly set up in the course of cultivation to raw resin manufacturing, did the Applicant utilize as many non-fossil energy sources (for example, bagasse or biogas) 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	Is discharged water in the plant controlled in accordance with the laws and regulations of the region, etc., where the plant for manufacturing the plant-based plastic (raw resin) is located?	Resin manufacturing plant	<input type="checkbox"/> Yes/ <input type="checkbox"/> No	Attach data describing the control of discharged water of the plant

Appendix 5 List of prohibited heavy metal used in a paint

Name of substances
Cadmium
Mercury
Hexavalent chromium
Lead
Arsenic
Antimony
Tributyltin
Triphenyltin

Appendix 6 VOC emission speed standard

VOC	Emission speed standard ($\mu\text{g}/\text{m}^2\text{h}$)
Toluene	38
Xylene	120
Ethylbenzene	550
Styrene	32

Appendix 7 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

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

Appendix 8 Standard value for processing agents of fiber material

Name	Criteria	Test Method	Concerned Products
Organic mercury compound Triphenyltin compound Tributyltin compound	Shall not be detected	MHW Ordinance No. 34	Products using fungicide
Dieldrin DTTB	30 ppm or less	MHW Ordinance No. 34 OekoTex	Products using wool products or mothproofing agents
APO TDBPP Bis (2,3-dibromopropyl) phosphate compound	Shall not be detected	MHW Ordinance No. 34	Products using fire retardant agents
PFOS	$1\mu\text{g}/\text{m}^2$ or less	CEN/TS15968:2010	Products using fluorine system water repellent agents, oil repellent agents or soil-release finishing agents
PFOA	$1\mu\text{g}/\text{m}^2$ or less	ISO25101 OekoTex	

DEHP/ DBP/ BBP/ DNOP/ DINP/ DIDP	0.1wt% or less	EN15777:2009 MHL notification No. 370 OekoTex	Printed products for small babies
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Appendix 9 Standard value of formaldehyde amount

Name of Substance	applicable product			Test Method
	Clothes for infants (under 36 months old)	Products likely to touch the skin (beddings, etc.)	Other products	
Formaldehyde	Not detected (16ppm or less)	75ppm or less	300ppm or less	Ordinance No. 34 of the Ministry of Health and Welfare

Appendix 10 List of prohibited dyes and pigments (fiber)

[1] Azo Dyes which may and generate the following carcinogenic amines in degradation (Dyes whose detection value of the following aromatic amine exceed 30mg/kg according to JIS L 1940-1 and JIS L 1940-3 (ISO24362-1, ISO24362-3, or EN 14362-1, EN14362-2))

CAS No	Name
92-67-1	4-Aminobiphenyl
92-87-5	Benzidine
95-69-2	4-Chloro-o-toluidine
91-59-8	2-Naphthylamine
97-56-3	o-Aminoazotoluene
99-55-8	2-Amino-4-nitrotoluene
106-47-8	4-Chloroaniline
615-05-4	2,4-Diaminoanisole
101-77-9	4,4'-Diaminodiphenylmethane
91-94-1	3,3'-Dichlorbenzidine
119-90-4	o-Dianisidine; 3,3'-Dimethoxybenzidine
119-93-7	o-Tolidine; 3,3'-Dimethylbenzidine
838-88-0	4,4'-Diamino-3,3'-dimethyldiphenylmethane
120-71-8	p-Cresidine
101-14-4	4,4'-Diamino-3,3'-dichlorodiphenylmethane
101-80-4	4,4'-Diaminodiphenyl ether
139-65-1	4,4'-Diaminodiphenyl sulfide
95-53-4	o-Toluidine
95-80-7	2,4-Diaminotoluene
137-17-7	2,4,5-Trimethylaniline
90-04-0	o-Anisidine
95-68-1	2,4-Xylidine
87-62-7	2,6-Xylidine
60-09-3	4-Aminoazobenzene

[2] Carcinogenic Dyes

CAS No	C.I.	
569-61-9	C.I. BASIC RED 9	CI 42500
2475-45-8	C.I. DISPERSE BLUE 1	CI 64500
3761-53-3	C.I. ACID RED 26	CI 16150
2602-46-2	C.I. DIRECT BLUE 6	CI 22610
1937-37-7	C.I. DIRECT BLACK 38	CI 30235

573-58-0	C.I. DIRECT RED 28	CI 22120
2832-40-8	C.I. DISPERSE YELLOW 3	CI 11855
632-99-5	C.I. BASIC VIOLET14	
82-28-0	C.I. DISPERSE ORANGE11	

[3] Skin Sensitizing Dyes

2475-46-9	C.I. DISPERSE BLUE 3	CI 61505
12222-75-2	C.I. DISPERSE BLUE 35	
	C.I. DISPERSE BLUE 106	
	C.I. DISPERSE BLUE 124	
2832-40-8	C.I. DISPERSE YELLOW 3	CI 11855
730-40-5	C.I. DISPERSE ORANGE 3	CI 11005
	C.I. DISPERSE ORANGE 37	
2872-52-8	C.I. DISPERSE RED 1	CI 11110
2475-45-8	C.I. DISPERSE BLUE 1	CI 64500
3179-90-6	C.I. DISPERSE BLUE 7	CI 62500
3860-63-7	C.I. DISPERSE BLUE 26	CI 63305
	C.I. DISPERSE BLUE 102	
	C.I. DISPERSE ORANGE 1	CI 11080
	C.I. DISPERSE ORANGE 76	
2872-48-2	C.I. DISPERSE RED 11	CI 62015
	C.I. DISPERSE RED 17	CI 11210
119-15-3	C.I. DISPERSE YELLOW 1	CI 10345
	C.I. DISPERSE YELLOW 9	CI 10375
	C.I. DISPERSE YELLOW 39	
	C.I. DISPERSE YELLOW 49	
	C.I. DISPERSE BROWN1	

Appendix 11 Elution standard of heavy metals

Substance name	Applicable products		Test method
	Newborns (under 36 months)	Adults (36 months or over)	
Lead	0.8mg/kg or less	0.8mg/kg or less	IUC27-1 ISO17072-1
Cadmium	0.1mg/kg or less	0.1mg/kg or less	IUC27-1 ISO17072-1
Mercury	0.02mg/kg or less	0.02mg/kg or less	IUC27-1 ISO17072-1
Nickel	1.0mg/kg or less	4.0mg/kg or less	IUC27-1 ISO17072-1
Cobalt	1.0mg/kg or less	4.0mg/kg or less	IUC27-1 ISO17072-1
Hexavalent chromium	Not detected	Not detected	IUC18 ISO17075
Total chromium	50mg/kg or less	200mg/kg or less	IUC27-1 ISO17072-1

Appendix 12 Elution standard of pentachlorophenol (PCP)

Substance name	Applicable products		Test method
	Newborns (under 36 months)	Adults (36 months or over)	

Pentachloro phenol (PCP)	0.05mg/kg or less	0.5mg/kg or less	IULTCS-IUC25
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Appendix 13 List of banned dyestuff, pigment (leather material)

[1] Carcinogenic aromatic amines

CAS No	Name
92-67-1	4-Aminobiphenyl
92-87-5	Benzidine
95-69-2	4-Chloro-o-toluidine
91-59-8	2-Naphthylamine
97-56-3	o-Aminoazotoluene
99-55-8	2-Amino-4-nitrotoluene
106-47-8	4-Chloroaniline
615-05-4	2,4-Diaminoanisole
101-77-9	4,4'-Diaminodiphenylmethane
91-94-1	3,3'-Dichlorbenzidine
119-90-4	o-Dianisidine; 3,3'-Dimethoxybenzidine
119-93-7	o-Tolidine; 3,3'-Dimethylbenzidine
838-88-0	4,4'-Diamino-3,3'-dimethyldiphenylmethane
120-71-8	p-Cresidine
101-14-4	4,4'-Diamino-3,3'-dichlorodiphenylmethane
101-80-4	4,4'-Diaminodiphenyl ether
139-65-1	4,4'-Diaminodiphenyl sulfide
95-53-4	o-Toluidine
95-80-7	2,4-Diaminotoluene
137-17-7	2,4,5-Trimethylaniline
90-04-0	o-Anisidine
95-68-1	2,4-Xylidine
87-62-7	2,6-Xylidine
60-09-3	4-Aminoazobenzene

[2] Five kinds of carcinogenic dyestuff

569-61-9	C.I. BASIC RED 9
3761-53-3	C.I. ACID RED 26
6459-94-5	C.I. ACID RED 114
2602-46-2	C.I. DIRECT BLUE 6
1937-37-7	C.I. DIRECT BLACK 38

Appendix 14 Elution standard of carcinogenic aromatic amines

Substance name	Standard value	Test method
carcinogenic aromatic amines	Not detected	ISO17234-1 ISO/TS17234

Appendix 15 Standard for color fastness to rubbing

	Drying test	Humidity test	Test method
Pigment-finish leather	Grade 3-4	Grade 2-3	ISO11640 /IUF450
Natural-finish light-colored leather	Grade 3-4	Grade 2-3	
Natural-finish deep color leather	Grade 2-3	Grade 2	

Exhibit

Certification regarding recovery and recycling systems

1. Outline of recovery and recycling system

The maintenance of recovery and recycling system shall be conducted by the authorized recovery and transport agent/ disposal agent, and it shall meet the requirement of laws including “Waste Disposal and Public Cleansing Law”.

2. Required certifications

(1) Explanation of recovery flow

- Figure of recovery flow

(2) Explanation of treatment flow

- Figure of treatment flow
- Explanatory materials to indicate that material recycle portion is 90% and over, including design specifications for the structure, weight, etc. of recycled portion and utilization of recycled products and the others

(3) Applicable area of recovery and recycling system

(4) List of agents to conduct recovery and recycling (including intermediate treatment agent), and existence or nonexistence of license for each agents (if license is unnecessary, indicate the reason)

(5) Information for users (instruction manual and labeling on the main part of product is essential)

- Recovery expense to fall on users (clients to request taking back), existence or nonexistence of treatment cost burden
- Contact information of recovery center
- Clear indication for products to be collected and recycled after use

(6) Management system

- Method to grasp the result of recovery and treatment
- In case of introducing recovery and treatment agent, explanation of the communication and designation line
- Management for the status of recovery and treatment (storage of forms, etc.)

(7) Existence or nonexistence of actual result of recovery and recycling

(In case of existence of actual result, report the real recovery result; it is not limited for Eco Mark authorized products, and gross result of the company can be applicable)

*In case that manufacturer or dealer is authorized by “Process reutilization certification system” or “Area-wide certification system”, it must satisfy the items (1), (3), (4) and (6) on the above. In this case, the copy of certification can be applied instead.