

## Eco Mark Product Category No.123

### “Building Products (Materials for Interior Work) Version 2.5”

#### Certification Criteria

#### Category C-1 “Boards”

Japan Environment Association  
Eco Mark Office

##### 1. Applicable Scope

- |  |            |
|--|------------|
| * Wood-based cement board  | JIS A 5404 |
| * Pulp cement board  | JIS A 5414 |
| * Decorative slate for house roof  | JIS A 5423 |
| * Fiber-reinforced cement board  | JIS A 5430 |
| * Gypsum board   | JIS A 6901 |
| * Fiber cement slate   | ISO9125    |
| * Interior board   |            |
| * Other board-related materials (packing, spacers, supports, etc. for wall surface and floor surface level adjustment) |            |

Note) “The boards prescribed in JIS A 5905 and JIS A 5908, or boards corresponding to these” is set forth in the Eco Mark Product Category No. 111 “Board Made of Wood or the Like Version 2”.

##### 2. Certification Criteria and Certification Procedure

To show conformance to the individual criteria, the Applicant shall submit the respective Attached Certificate forms duly filled in.

In the event re-examination under the present Certification Criteria is sought for a product that is already certified in the Product Category No. 123 “Building Products Using Recycled Materials” the raw materials certification issued by the raw material supplier which is one of the procedures to show conformance to the applicable criteria 2-1.(1) as well as the certification procedures (2), and 2-2.(10) may be substituted by filling in necessary items on the Attached Certificate form and declaring further therein that no alterations have been made to the product already certified (For fluorine and boron indicated in 2-1.(2), the test shall be performed as shown in applicable items of the Certification Criteria).

## 2-1. Environmental Criteria and Certification Procedure

- (1) The Product shall satisfy the corresponding recycled materials ratio\*1 specified in below Table 1 with regard to product types.

\*1: The ratio of mass of recycled materials against the Product total

[Certification Procedure]

The Applicant shall fill in the names of recycled materials and their respective contents on the Attached Certificate form and submit it together with the raw materials certifications issued by the respective raw material suppliers. With respect to reused/unused wood, the Applicant shall submit the certificate stipulated in Attachment 1.

Table 1 Types of recycle materials and recycled materials ratio

Product name	Recycled materials ratio (%)	Recycled material type
Wood-based cement board	25	Reused/unused wood
Pulp cement board	10	Used paper pulp
Slag gypsum board	50	Slag, waste gypsum
Gypsum board	50	Waste gypsum
Others	50	Eco-cement, slag, waste gypsum, used paper pulp, reused/unused wood, recycled plastic, recycled rubber, glass cullet, coal ash

- (2) The Product shall conform to the standards concerning elusion of heavy metals and other hazardous substances that are set forth in Attached Table 2 of the enforcement regulation of the Soil Contamination Countermeasures Law (2002 Ministerial Order No. 29 of the Ministry of the Environment) with respect to cadmium, lead, hexavalent chromium, arsenic, mercury, and selenium among the specified hazardous substances listed therein. In case to use slag and/or eco-cement as recycled materials, the product shall meet the standards for boron and fluorine.

However, this item is not applicable for paper, metal and wood.

[Certification Procedure]

For the elusion of applicable substances from the product, the results of tests conducted by an own company or a third party testing body shall be submitted. In case to conduct tests for each material, for the material which does not clearly contain the applicable substances, the certification certified by a material business or an Applicant which shows the product contains no applicable substances is acceptable. However, for recycled materials, tests shall be conducted.

- (3) For products using lumber from dismantled buildings (wood and wooden materials disposed in dismantling), lumber subject to preservatives, termite control agent, 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 Attached Table 3 of the enforcement regulation of the Soil Contamination Countermeasures Law (2002 Ministerial Order No. 29 of the Ministry of the Environment).

[Certification Procedure]

Documents (including work manual, and workflow) certifying that lumber from dismantled buildings is sorted in use or not used shall be submitted. If using lumber from dismantled buildings, the results of tests conducted by an own company or a third party testing body shall be submitted.

- (4) The Product shall not contain asbestos.

The Product that is made of gypsum board recycled from the waste generated in connection with building demolition shall be made free of products that are known to have contained asbestos, arsenic, or cadmium through the process of sorting and removal. The Applicant should select the specific waste gypsum boards to be eliminated by reference to “On the Inclusion of Asbestos in Gypsum Boards) published by the Gypsum Board Industry Association, “Proper Handling of Hazardous Substances and the Like Associated with Building Demolition and the Like” published by the Construction By-products Recycling Promotion Conference, and other pertinent documents.

No analysis shall be required if the Product is made of gypsum board that is recycled from the waste coming out of the manufacturing process of gypsum board processing plants or generated at a new building construction site, because the recycled material does not contain asbestos.

[Certification Procedure]

Applicants are requested to enter the conforming condition of this item in the attached certificate. In the event that products which have turned out to have contained asbestos, arsenic, and/or cadmium are separated and removed, applicants must report the specific separation and removal methods. Incidentally, in the case of judgment by analytical examinations, applicants must determine that more than 0.1% of six types of asbestos including Tremolite are not contained by the methods that conform to “JIS A1481: Determination of asbestos in building material products” (2008) shown in the Instruction Letter No. 0821002 of the Labour Standards Bureau of the Ministry of Health, Labour and Welfare dated August 21, 2006 titled “On the Analysis Method of Asbestos Content in Building Materials.”

- (5) Products for which adhesives have been used shall have no emission of toluene or xylene detected at the time of product shipment. “No emissions detected” shall mean no more than the lower quantification limit based on JIS A 1901 “Measuring methods for emission of volatile organic chemicals (VOC), formaldehyde and other carbonyl compounds—small chamber method.”

[Certification Procedure]

The Applicant shall submit the results of tests conducted by a third party testing body or an own company regarding to emission of toluene or xylene. In the event neither toluene nor xylene is added to the Product, adhesives or paints as prescribed components, the aforesaid test may be exempted and the Applicant shall submit a document substantiating no addition of the said substances.

- (6) For the products to be used formaldehyde emission building materials described in the Building Standard Law, with respect to the question of formaldehyde emission, it shall conform to the applicable JIS standard and JAS standards rated “F four-stars”, and shall be outside the scope of regulations set forth by the Minister of Land, Infrastructure and Transport, respectively. Put differently, the Product shall satisfy the numerical criteria of either a) or b) below:
- a) 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.”
  - b) The formaldehyde emission rate is no higher than 5µg/(m<sup>2</sup>·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.”

Provided however the following alternative c) is also accepted:

- c) In the case of adhesives for which JIS or JAS standards exist, the formaldehyde emission rate, as calculated by the use of conversion formula from the results of glass desiccator method measurement set out in the applicable individual standard, is no higher than  $5\mu\text{g}/(\text{m}^2\cdot\text{h})$ .

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria and submit the test results.

In the event the Product used none of the formaldehyde emitting building materials specified by the Building Standards Law and hence is not subjected to formaldehyde regulations, the Applicant shall so state in the Attached Certificate form.

With respect to the Products for which any of the formaldehyde emitting building materials specified by the Building Standards Law are used, the Applicant shall submit a certificate showing that the Product has been rated Class “F four-stars” based on test results according to JIS standard or a document explaining that the product is outside the scope of regulations by the Minister of Land, Infrastructure and Transport.

- (7) The Product shall be accompanied by a manual relating to installation, use, maintenance, disassembly, disposal and recycling that is available for reading by the builder and the building owner.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria. In addition, the Applicant shall submit a sample of a manual relating to installation, use, maintenance, disassembly, disposal and recycling. Regarding a part of the product’s lifecycle from installation to recycling which is not included in the manual, the reason shall be indicated.

- (8) The Product shall be free of termite control agents, preservatives, fungicides and pesticides. However, this does not apply to preservatives and fungicides in paints.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria.

- (9) In manufacturing the applied product, related environmental laws and regulations and pollution control agreement (hereinafter referred to as the “Environmental Laws, etc.”) must be followed with respect to air pollution, water contamination, noise, offensive odor, and emission of hazardous substances in the area where the plant performing the final manufacturing process is located.

In addition, the state of compliance with the Environmental Laws, etc. for the past five years from the date of application (whether there is any violation) must be reported. If there is any violation, proper remedies and preventive measures shall have been already taken, and the related Environmental Laws, etc. must thereafter be followed appropriately.

[Certification Procedure]

With respect to the compliance with the Environmental Laws, etc. in the area where the plant performing the final manufacturing process is located, a certificate issued by the representative of the business of manufacturing the applied product or the relevant plant manager (entry or attachment of a list of names of the Environmental Laws, etc.) must be submitted.

In addition, the applicants shall report whether there is any violation in the past five years, including a violation subject to administrative punishment or administrative guidance, and if there is, the following documents in a and b must be submitted:

- a. With respect to the fact of violation, guidance documents from administrative agencies (including order of correction and warning) and copies of written answers (including those reporting causes and results of correction) to such documents (clearly indicating a series of communication);
- b. Following materials (copies of recording documents, etc.) concerning the management system for compliance with the Environmental Laws, etc. in 1)-5):
  - 1) List of the Environmental Laws, etc. related to the area where the plant is located;
  - 2) Implementation system (organizational chart with roles, etc.);
  - 3) Bylaws stipulating retention of recording documents;
  - 4) Recurrence prevention measures (future preventive measures);
  - 5) State of implementation based on recurrence prevention measures (result of checking of the state of compliance, including the result of onsite

inspection).

## 2-2. Quality Criteria and Certification Procedure

- (10) The quality of the Product shall conform to any applicable ISO standards or JIS standards. For the products of interior board and other related materials, it shall conform to the own company's standard corresponding to the similar JIS standards.

### [Certification Procedure]

The Applicant shall submit a document certifying the test results and other data to show conformance with the applicable ISO standards or JIS standards. In the event the Product or the manufacturing site of the Product has been certified by JIS or the like, submission of a copy of certificate issued by JIS or the like shall suffice for the aforesaid purpose. For the products of interior board, the Applicant shall submit a document certifying that the product conforms to the own company's standard corresponding to the similar JIS standards.

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May 5,2007	Established (Version 2.0)
August 2, 2007	Revised (2-1. (1); Version 2.1)
November 1,2007	Revised (2-1. (1) (2) (3) (5) (6) (8) and (10); Version 2.2)
August 21, 2008	Revised (2-1.(2)(4)(8)(9)(10)version2.5)
December 31,2017	Validity Period

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

Attachment 1

**Forestry Certification Provided Based on Definition of Terms**

Certification criteria	- While balancing economical, ecological, and social benefits, the criteria shall comply with Agenda 21 and Statement of Principles on Forests, and observe related international agreements and conventions.
	- Including solid requirements, the criteria shall promote sustainable forests.
	- Recognized both domestically and internationally, the criteria shall be recommended as part of the process opened to participation by ecological, economical, and social stakeholders.
Certification system	- Certification systems shall have high transparency, maintain nation-wide or international reliability, and can verify requirements.
Certification body	- With fairness and high reliability, certification organizations and groups shall be able to verify that requirements are satisfied, convey the results, and able to execute requirements effectively.

**Certification articles of thinned-out wood and less useful wood**

Documents issued by the raw material vendor certifying that the raw material is reused/unused wood or waste plant fibers shall be submitted. If there are multiple vendors, a list of the vendors and list of certification of the top 10 vendors in terms of volume of material traded shall 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 trimming percentage and how many times the forest has been thinned, including the most recent trimming shall also be indicated if possible.

If using less useful wood, the following information shall be submitted. At the same time, official documents stating that the forest has been certified as sustainable by a third party shall be submitted.

- Type of forest (natural regenerated or plantation, etc.), place of production, type of tree; year of tree planting should be added if plantation forest.
- 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.

If using bamboo as the raw material in less useful wood, certificates indicating the following information and photographs/maps of the surroundings of the bamboo grove shall be submitted.

- Type of bamboo, place of production, surrounding conditions, and description that logging is carried out for the purpose of appropriate maintenance and management in environment preservation, as well as management plans and quantity.

## Category C-2 Tatami mat

### 1. Applicable Scope

- |   |            |
|---|------------|
| * Straw Tatamidoko and straw sandwich Tatamidoko  | JIS A 5901 |
| * Tatami mat                                      | JIS A 5902 |
| * Non straw Tatamidoko                            | JIS A 5914 |
| * Any Tatami mat equivalent to those on the above |            |

### 2. Certification Criteria and Certification Procedure

To show conformance to the individual criteria, the Applicant shall submit the respective Attached Certificate forms duly filled in.

In the event re-examination under the present Certification Criteria is sought for a product that is already certified in the Product Category No. 123 “Building Products Using Recycled Materials” the raw materials certification issued by the raw material supplier which is one of the procedures to show conformance to the applicable criteria 2-1.(1) as well as the certification procedure 2-2.(10) may be substituted by filling in necessary items on the Attached Certificate form and declaring further therein that no alterations have been made to the product already certified.

#### 2-1. Environmental Criteria and Certification Procedure

- (1) The total mass of straw, reuses/unused wood, waste plant fiber and recycled plastic materials shall be no less than 80% of the total mass of the Product; provided that Tatami thread, yarn, Tatami hem, Tatami cover, paper and other small-sized attachments shall be excluded for the purpose of calculation. Furthermore, rarely utilized wood that is defined as small diameter wood shall satisfy the forest accreditation requirements listed in Attachment 1 if applicable to a) or b) shown in the definition.

In the event the Product uses as its raw material construction-derived wood that is defined as disassembled architectural wood (wood and woody materials that are generated as waste as a result of building demolition), materials that have received preservative, termite control or insect repellent treatment shall have been sorted out and removed. The content of hazardous substances in the Product shall satisfy the requirements with respect to hexavalent chromium and arsenic that are listed in Attached Table 3 of the enforcement regulation of the Soil Contamination Countermeasures Law (Ministerial Ordinance of the

Ministry of the Environment No. 29 dated December 26, 2002).

In the event the Product Tatamidoko comprises as its main material such foamed polystyrene sheet as corresponds to Type K and Type N defined in JIS A 5914 “3.types,” the criteria can be alternatively that the formulation ratio (mass basis) of recycled plastic materials in the foamed polystyrene sheet shall be no less than 50%.

[Certification Procedure]

The Applicant shall fill in the names of recycled materials and their respective contents on the Attached Certificate form and submit it together with the raw materials certifications issued by the respective raw material suppliers. With respect to thinned-out wood and rarely utilized wood, the Applicant shall submit the certificate stipulated in Attachment 1.

In the event building demolition wood is used in the Product, the Applicant shall state in the Attached Certificate form whether termite control agents and the like have been separated and removed or not. Test results and other certificates shall be submitted with respect to the question of inclusion of hazardous substances.

In the event to use board made of Eco Mark-certified woods (Eco Marc Product Category No. 111), proof of conformance may be substituted by mention of the “brand name” and “certification number” of the certified board to the application form.

- (2) The Product shall be accompanied by a manual relating to installation, use, maintenance, disassembly, disposal and recycling that is available for reading by the builder and the building owner.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria. In addition, the Applicant shall submit a sample of a manual relating to installation, use, maintenance, disassembly, disposal and recycling. Regarding a part of the product’s lifecycle from installation to recycling which is not included in the manual, the reason shall be indicated.

- (3) The Product shall be free of insect repellents, termite control agents, preservatives, or fungicides.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria.

- (4) In the case of any woody material used as a core material shall, with respect to the question of formaldehyde emission, conform to the applicable JIS A 5905, are rated “F four-stars” under the JIS A 5908, and are outside the scope of regulations set forth by the Minister of Land, Infrastructure and Transport, respectively. Put differently, the Product shall satisfy the numerical criteria of either a) or b) below:

- a) 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.”
- b) The formaldehyde emission rate is no higher than  $5\mu\text{g}/(\text{m}^2\cdot\text{h})$ , as measured pursuant to JIS A 1901 “Test method for formaldehyde emission of building materials—small chamber method.”

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria and shall submit a test report or the like.

With respect to the Product which is allowed to indicate “F four-stars” under JIS A 5905 or JIS A 5908, or the Product which is certified as outside the scope of regulations set forth by the Minister of Land, Infrastructure and Transport, submission of a document or the copy certifying that shall suffice for the aforesaid purpose. In the event a board which is Eco Mark certificated is used, filling in the Product name and the Certification number on the Attached Certificate form shall suffice for the aforementioned purpose.

- (5) No cadmium, lead, total mercury, chromium, arsenic, selenium or their compounds have been added as prescribed constituents during the fabrication process of plastic material.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form whether cadmium and the like have been added or not.

- (6) In case the Product contains as a prescribed constituents any plastic material that has a halogen in the polymer skeleton, 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.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form whether this criteria applies to the Product or not, and, if affirmative, shall submit a document ensuring that proper recovery and recycling will be made at the time of Product disposal. This Office reserves the right to ask the Applicant to present reports on the recovery ratio (or to conduct audit) after the conclusion of the license agreement, for which the Applicant assumes the obligation to cooperate.

- (7) The Product shall have built-in features for long life including easiness of Tatami cover replacement.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria.

- (8) The Product shall be recyclable even after use. Furthermore, attention has been paid to easiness of separation of different materials (core material and the like).

[Certification Procedure]

The mode of recycling of main materials and separation of different materials shall be explained (use of drawings and photos to supplement the description is encouraged).

- (9) In manufacturing the applied product, related environmental laws and regulations and pollution control agreement (hereinafter referred to as the “Environmental Laws, etc.”) must be followed with respect to air pollution, water contamination, noise, offensive odor, and emission of hazardous substances in the area where the plant performing the final manufacturing process is located.

In addition, the state of compliance with the Environmental Laws, etc. for the past five years from the date of application (whether there is any violation) must be reported. If there is any violation, proper remedies and preventive measures shall have been already taken, and the related Environmental Laws, etc. must thereafter be followed appropriately.

[Certification Procedure]

With respect to the compliance with the Environmental Laws, etc. in the area where the plant performing the final manufacturing process is located, a certificate issued by the representative of the business of manufacturing the applied product or the relevant plant manager (entry or attachment of a list of names of the Environmental Laws, etc.) must be submitted.

In addition, the applicants shall report whether there is any violation in the past five years, including a violation subject to administrative punishment or administrative guidance, and if there is, the following documents in a and b must be submitted:

- a. With respect to the fact of violation, guidance documents from administrative agencies (including order of correction and warning) and copies of written answers (including those reporting causes and results of correction) to such documents (clearly indicating a series of communication);
- b. Following materials (copies of recording documents, etc.) concerning the management system for compliance with the Environmental Laws, etc. in 1)-5):
  - 1) List of the Environmental Laws, etc. related to the area where the plant is located;
  - 2) Implementation system (organizational chart with roles, etc.);
  - 3) Bylaws stipulating retention of recording documents;
  - 4) Recurrence prevention measures (future preventive measures);
  - 5) State of implementation based on recurrence prevention measures (result of checking of the state of compliance, including the result of onsite inspection).

## 2-2. Quality Criteria and Certification Procedure

- (10) The straw Tatamidoko shall conform to JIS A 5901 with regard to quality, shape, dimensions and the like.

The quality of Tatami shall conform to JIS A 5902.

The non-straw Tatamidoko shall conform to JIS A 5914 with regard to dimensions, performance and the like.

In case of absence of JIS labeling, the Product shall have been manufactured at a plant accredited by All Japan Tatami Business Cooperative and so indicated by the certifying stamp.

[Certification Procedure]

The Applicant shall submit a document certifying the test results and other data to show conformance to the applicable JIS standards, or the like. In the event

the Product or the manufacturing site of the Product has been certified by JIS or the like, submission of a copy of certificate issued by JIS or the like shall suffice for the aforesaid purpose.

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May 5,2007	Established (Version 2.0)
November 1,2007	Revised (2-1.(3) Version 2.2)
August 21, 2008	Revised (2-1.(9) Version2.5)
December 31,2017	Validity Period

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

Attachment 1

**Forestry Certification Provided Based on Definition of Terms**

Certification criteria	- While balancing economical, ecological, and social benefits, the criteria shall comply with Agenda 21 and Statement of Principles on Forests, and observe related international agreements and conventions.
	- Including solid requirements, the criteria shall promote sustainable forests.
	- Recognized both domestically and internationally, the criteria shall be recommended as part of the process opened to participation by ecological, economical, and social stakeholders.
Certification system	- Certification systems shall have high transparency, maintain nation-wide or international reliability, and can verify requirements.
Certification body	- With fairness and high reliability, certification organizations and groups shall be able to verify that requirements are satisfied, convey the results, and able to execute requirements effectively.

**Certification articles of thinned-out wood and less useful wood**

Documents issued by the raw material vendor certifying that the raw material is reused/unused wood or waste plant fibers shall be submitted. If there are multiple vendors, a list of the vendors and list of certification of the top 10 vendors in terms of volume of material traded shall 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 trimming percentage and how many times the forest has been thinned, including the most recent trimming shall also be indicated if possible.

If using less useful wood, the following information shall be submitted. At the same time, official documents stating that the forest has been certified as sustainable by a third party shall be submitted.

- Type of forest (natural regenerated or plantation, etc.), place of production, type of tree; year of tree planting should be added if plantation forest.
- 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.

If using bamboo as the raw material in less useful wood, certificates indicating the following information and photographs/maps of the surroundings of the bamboo grove shall be submitted.

- Type of bamboo, place of production, surrounding conditions, and description that logging is carried out for the purpose of appropriate maintenance and management in environment preservation, as well as management plans and quantity.

## Category C-3 Wall paper

### 1. Applicable Scope

Japan Industrial Standard JIS A 6921 “Wall paper” and its equivalent

### 2. Certification Criteria and Certification Procedure

To show conformance to the individual criteria, the Applicant shall submit the respective Attached Certificate forms duly filled in.

In the event re-examination under the present Certification Criteria is sought for a product that is already certified in the Product Category No. 123 “Building Products Using Recycled Materials” the raw materials certification issued by the raw material supplier which is one of the procedures to show conformance to the applicable criteria 2-1.(1) as well as the certification procedure 2-2.(9) may be substituted by filling in necessary items on the Attached Certificate form and declaring further therein that no alterations have been made to the product already certified.

#### 2-1. Environmental Criteria and Certification Procedure

- (1) The Product shall contain as its raw material any of the recycled materials either alone or in combination and the recycled materials ratio shall be no less than 50% of the total mass of the Product (excluding adhesives, printing ink and the like). In the event a recycled material is used for more than one raw material category, furthermore, it shall be used in a ratio against the overall mass of the material at least equal to the recycled material ratio stipulated in Table 1, if the material in question is used in a quantity at least equal to 20% of the total Product mass.

However, for the Product containing of the recycled plastics made from post-consumer materials alone, the recycled materials ratio shall be no less than 25% of the total mass of the Product (excluding adhesives, printing ink and the like).

**Table 1 Basic formulation ratio of recycled materials**

Recycled material type	Recycled material ratio (%)	
Paper (used paper pulp)	50	
Plastic	Pre-consumer material 50	Post-consumer material 25
Fiber*1	50	
Glass	50	

\*1: Chemically recycled fibers must satisfy the above basic formulation ratio in terms of recycled monomer as monomer quantity.

[Certification Procedure]

The Applicant shall fill in the names of recycled materials and their respective contents on the Attached Certificate form and submit it together with the raw materials certifications issued by the respective raw material suppliers.

- (2) The papers and fibers in the Product shall contain none of the dyestuffs listed in Appendix 1 as prescribed constituents.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria and submit it together with certifications issued by the paper manufacturer, dyestuffs manufacturer or dyeing manufacturer.

- (3) The Product shall contain as prescribed constituents none of the substances that are regulated by the Japan Printing Ink Makers Association's "Voluntary Restrictions on Printing Ink (a negative list regulation)."

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria.

- (4) In the case of plastic-based wall paper (a wall paper which is made by forming a plastic coating layer over a surface-treated paper and adding printing, embossing and other processing onto it), polyvinyl chloride resin is used in no more than 100g/m<sup>2</sup>.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria.

- (5) The Product shall satisfy the safety standards of Table 2 below.

**Table 2 Safety standards**

Substance	Standard	Measuring method
Formaldehyde	No more than 0.2mg/l	See JIS A 6921
TVOC	No more than 100µg/m <sup>3</sup>	See JIS A 1901

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria. In addition, the Applicant shall submit a test report in accordance with JIS A 6921.

However, for the test result of formaldehyde of the products with the new JIS mark (wall paper JIS A 6921) revised on March 20, 2003 and the products certified with by the Minister of Land, Infrastructure and Transport, the certifications to show the product qualified by JIS or the Minister of Land, Infrastructure and Transport can be alternative.

The measuring method for TVOC shall be based on JIS A 1901, using test sampling method and measurement conditions in accordance with Attachment 1 of JIS A 6921. The test sample shall be 165mm±3mm in a square shape being premised on the seal process. For evaluation standards, the emission speed values were taken by the small chamber method on the 1<sup>st</sup>, 3<sup>rd</sup> and 7<sup>th</sup> day. In principle, the 7<sup>th</sup> day value is adopted for the evaluation, but the 3<sup>rd</sup> day value can be used.

- (6) The Product shall be accompanied by a manual relating to installation, use, maintenance, disassembly, disposal and recycling that is available for reading by the builder and the building owner.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria. In addition, the Applicant shall submit a sample of a manual relating to installation, use, maintenance, disassembly, disposal and recycling. Regarding a part of the product's lifecycle from installation to recycling which is not included in the manual, the reason shall be indicated.

- (7) In case the Product contains as prescribed constituents any plastic material that has a halogen in the polymer skeleton, 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.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form whether this criteria applies to the Product or not, and, if affirmative, shall submit a document ensuring that proper recovery and recycling will be made at the time of Product disposal. This Office reserves the right to ask the Applicant to present reports on the recovery ratio (or to conduct audit) after the conclusion of the license agreement, for which the Applicant assumes the obligation to cooperate.

- (8) In manufacturing the applied product, related environmental laws and regulations and pollution control agreement (hereinafter referred to as the “Environmental Laws, etc.”) must be followed with respect to air pollution, water contamination, noise, offensive odor, and emission of hazardous substances in the area where the plant performing the final manufacturing process is located.

In addition, the state of compliance with the Environmental Laws, etc. for the past five years from the date of application (whether there is any violation) must be reported. If there is any violation, proper remedies and preventive measures shall have been already taken, and the related Environmental Laws, etc. must thereafter be followed appropriately.

[Certification Procedure]

With respect to the compliance with the Environmental Laws, etc. in the area where the plant performing the final manufacturing process is located, a certificate issued by the representative of the business of manufacturing the applied product or the relevant plant manager (entry or attachment of a list of names of the Environmental Laws, etc.) must be submitted.

In addition, the applicants shall report whether there is any violation in the past five years, including a violation subject to administrative punishment or administrative guidance, and if there is, the following documents in a and b must be submitted:

- a. With respect to the fact of violation, guidance documents from administrative agencies (including order of correction and warning) and copies of written answers (including those reporting causes and results of correction) to such documents (clearly indicating a series of communication);
- b. Following materials (copies of recording documents, etc.) concerning the management system for compliance with the Environmental Laws, etc. in 1)-5):
  - 1) List of the Environmental Laws, etc. related to the area where the plant is located;

- 2) Implementation system (organizational chart with roles, etc.);
- 3) Bylaws stipulating retention of recording documents;
- 4) Recurrence prevention measures (future preventive measures);
- 5) State of implementation based on recurrence prevention measures (result of checking of the state of compliance, including the result of onsite inspection).

**2-2. Quality Criteria and Certification Procedure**

(9) The Product shall conform to JIS A 6921 “Wall paper.” Provided however the stipulations regarding formaldehyde emission shall not apply.

With the exception of treated paper-based wall paper and plastic-based wall paper, conformance to in-house standards substantially equivalent to JIS A 6921 shall be sufficient.

[Certification Procedure]  
 The Applicant shall submit a document certifying the test results and other data to show conformance to the applicable JIS standards or the like. In the event the Product or the manufacturing site of the Product has been certified by JIS or the like, submission of a copy of certificate issued by JIS or the like shall suffice for the aforesaid purpose. In case the Product is equivalent to JIS, the Applicant shall submit a document certifying conformance to the in-house standards substantially equivalent to JIS A 6921.

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May 5,2007	Established (Version 2.0)
February. 14, 2008	Revised (2-1.(5) Version2.3)
December 31,2017	Validity Period

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

## Category C-4 “Thermal insulation Materials”

Japan Environment Association  
Eco Mark Office

### 1. Applicable Scope

- \*Man made mineral fiber thermal insulation materials JIS A 9504
- \*Preformed cellular plastics thermal insulation materials  
JIS A 9511, and equivalent thermal insulation materials
- \*Man made mineral wool thermal insulation materials for dwellings  
JIS A 9521
- \*Sprayed-applied fiber thermal insulation materials JIS A 9523
- \*Spray-applied rigid polyurethane foam for thermal insulation JIS A 9526
- \*Organics/inorganics mixture thermal insulation materials and inorganic thermal insulation materials

### 2. Certification Criteria and Certification Procedure

To show conformance to the individual criteria, the Applicant shall submit the respective Attached Certificate forms duly filled in.

In the event re-examination under the present Certification Criteria is sought for a product that is already certified in the Product Category No. 123 “Building Products Using Recycled Material”, the raw materials certification issued by the raw material supplier, which is one of the procedures to show conformance to the applicable criteria 2-1. (1), as well as the certifications procedure (3) and 2-2. (10) may be substituted by filling in necessary items on the Attached Certificate form and declaring further therein that no alterations have been made to the product already certified. (For fluorine and boron indicated in 2-1.(3), the test shall be performed as shown in applicable items of the Certification Criteria).

#### 2-1. Environmental Criteria and Certification Procedure

- (1) With respect to man made mineral fiber thermal insulation materials, man made mineral wool thermal insulation materials for dwellings, spray-applied fiber thermal insulation materials, and organics/inorganics mixture thermal insulation materials and inorganic thermal insulation materials, the product shall contain recycled materials described in Table 1 and use the content ratio or more of the recycled materials stipulated in Table 1. In case to use cellulose fiber and wooden materials as raw materials, waste paper or reused/unused wood shall be 100% of the wooden part. Regarding to rock wool, the content ratio can be calculated with unused materials as recycled materials.

In addition, the thermal conductivity shall conform to the standards stipulated in Table 1.

**Table 1 Content of recycled material and thermal conductivity**

Type of material used in the product	Name of recycled material	Recycled material content ratio (Total weight of recycled materials/Weight of base materials)	Thermal conductivity W/(m·K)
Glass wool	Glass	80 wt% and more	0.045 max.
Rock wool (slag wool)	Slag	85 wt% and more	0.045 max.
Cellulose fiber	Waste paper, Reused/unused wood	75 wt% and more	0.040 max.
Organics/inorganics mixture thermal insulation materials and inorganic thermal insulation materials (Other fiber thermal insulation materials not applicable for JIS)	Glass cullet, slag, waste paper, reused/unused wood, recycled plastic	50 wt% and more	0.047 max.

[Certification Procedure]

The Applicant shall state in the attached certificate the identity and content of the compounded recycled materials as well as their thermal conductivity, and shall submit the same together with certificates of raw material supply issued by the respective suppliers. For reused/unused wood, the Applicant shall submit the certificate described in the Attachment 1.

- (2) Preformed cellular plastics thermal insulation materials shall conform to either of the following standards (a) or (b), and spray-applied rigid polyurethane foam for thermal insulation shall conform to the following standard (b):
- (a) With respect to each type of thermal insulation, products shall contain recycled materials described in Table 2 and use the content ratio or more of the recycled materials stipulated in Table 2. In addition, the thermal conductivity shown in

Table 2 shall be met.

Table 2 Recycled material content ratio and thermal conductivity

Type of thermal insulation materials	Name of recycled material	Recycled material content ratio	Thermal conductivity W/(m·K)
Polystyrene foam (beads process)	Plastic	10 wt% and more	0.040 max.
Polystyrene foam (extrusion process)	Plastic	50 wt% and more	0.040 max.

[Certification Procedure]

For (a), the Applicant shall state in the Attached Certificate the identity and content of the compounded recycled materials, and shall submit the same together with certificates of raw material supply issued by the respective suppliers.

- (b) With respect to each type of thermal insulation, the thermal conductivity shall meet the standards in Table 3.

Table 3 Thermal conductivity of preformed cellular plastics thermal insulation materials

Type of thermal insulation material	Thermal conductivity
Polystyrene foam (beads process)	0.038W/(m·k) max.
Polystyrene foam (extrusion process)	0.028W/(m·k) max.
Rigid polyurethane foam	0.028W/(m·k) max.
Spray-applied rigid polyurethane foam	0.034W/(m·k) max. (initial value)
Polyethylene foam	0.038W/(m·k) max.
Phenol foam	0.028W/(m·k) max.

[Certification Procedure]

The Applicant shall state the thermal conductivity in the Attached Certificate.

- (3) The Product shall conform to the standards concerning elusion of heavy metals and other hazardous substances that are set forth in Attached Table 2 of the enforcement regulation of the Soil Contamination Countermeasures Law (2002 Ministerial Order No. 29 of the Ministry of the Environment) with respect to cadmium, lead, hexavalent chromium, arsenic, mercury, and selenium among the specified hazardous substances listed therein. In case to use slag as recycled

materials, the product shall meet the standards for boron and fluorine. However, this item is not applicable for paper and wood.

[Certification Procedure]

For the elusion of applicable substances from the product, the results of tests conducted by an own company or a third party testing body shall be submitted. In case to conduct tests for each material, for the material which does not clearly contain the applicable substances, the certification certified by a material business or an Applicant which shows the product contains no applicable substances is acceptable. However, for recycled materials, tests shall be conducted.

- (4) For products using lumber from dismantled buildings (wood and wooden materials disposed in dismantling), lumber subject to preservatives, termite control agent, 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 Attached Table 3 of the enforcement regulation of the Soil Contamination Countermeasures Law (2002 Ministerial Order No. 29 of the Ministry of the Environment).

[Certification Procedure]

Documents (including work manual, and workflow) certifying that lumber from dismantled buildings is sorted in use or not used shall be submitted. If using lumber from dismantled buildings, the results of tests conducted by an own company or a third party testing body shall be submitted.

- (5) No foamed resins used in the Product shall have been made by the use of any of the five specified CFCs listed in the Attached Table 1, other CFCs, carbon tetrachloride, trichloroethane, or CFC substitutes (HCFC, HFC).

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria.

- (6) Products for which adhesives have been used shall have no emission of toluene or xylem detected at the time of product shipment. “No emissions detected” shall mean no more than the lower quantification limit based on JIS A 1901 “Measuring methods for emission of volatile organic chemicals (VOC), formaldehyde and other carbonyl compounds—small chamber method.”

[Certification Procedure]

The Applicant shall submit the results of tests conducted by a third party testing

body or an own company regarding to emission of toluene or xylene. In the event neither toluene nor xylene is added to the Product, adhesives as prescribed component, the aforesaid test may be exempted and the Applicant shall submit a document substantiating no addition of the said substances.

- (7) With respect to such man made mineral fiber thermal insulation materials, man made mineral wool thermal insulation materials for dwellings, and spray-applied fiber thermal insulation materials that use glass wool or rock wool as well as such preformed cellular plastics thermal insulation materials that use phenol foam, the requirements for rating as “F four-stars” in terms of formaldehyde release pursuant to JIS A9504, JIS A9511, JIS A 9521 and JIS A 9523 shall be met.

[Certification Procedure]

The Applicant shall submit the results of tests conducted by a third party testing body or an own company regarding to emission of formaldehyde.

- (8) The Product shall be accompanied by a manual relating to installation, use, maintenance, disassembly, disposal and recycling that is available for reading by the builder and the building owner. In case to use preservatives in thermal insulation materials, information about the type and safety of preservatives shall be indicated.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria. In addition, the Applicant shall submit a sample of a manual relating to installation, use, maintenance, disassembly, disposal and recycling. Regarding a part of the product’s lifecycle from installation to recycling which is not included in the manual, the reason shall be indicated.

- (9) The Product shall be again recyclable after use.

[Certification Procedure]

The Applicant shall explain the recycling method for main materials.

- (10) In manufacturing the applied product, related environmental laws and regulations and pollution control agreement (hereinafter referred to as the “Environmental Laws, etc.”) must be followed with respect to air pollution, water contamination, noise, offensive odor, and emission of hazardous substances in the area where the plant performing the final manufacturing process is located.

In addition, the state of compliance with the Environmental Laws, etc. for the past five years from the date of application (whether there is any violation) must be

reported. If there is any violation, proper remedies and preventive measures shall have been already taken, and the related Environmental Laws, etc. must thereafter be followed appropriately.

[Certification Procedure]

With respect to the compliance with the Environmental Laws, etc. in the area where the plant performing the final manufacturing process is located, a certificate issued by the representative of the business of manufacturing the applied product or the relevant plant manager (entry or attachment of a list of names of the Environmental Laws, etc.) must be submitted.

In addition, the applicants shall report whether there is any violation in the past five years, including a violation subject to administrative punishment or administrative guidance, and if there is, the following documents in a and b must be submitted:

- a. With respect to the fact of violation, guidance documents from administrative agencies (including order of correction and warning) and copies of written answers (including those reporting causes and results of correction) to such documents (clearly indicating a series of communication);
- b. Following materials (copies of recording documents, etc.) concerning the management system for compliance with the Environmental Laws, etc. in 1)-5):
  - 1) List of the Environmental Laws, etc. related to the area where the plant is located;
  - 2) Implementation system (organizational chart with roles, etc.);
  - 3) Bylaws stipulating retention of recording documents;
  - 4) Recurrence prevention measures (future preventive measures);
  - 5) State of implementation based on recurrence prevention measures (result of checking of the state of compliance, including the result of onsite inspection).

## 2-2. Quality Criteria and Certification Procedure

(11) The quality of the Product shall conform to any applicable JIS standards.

With respect to thermal insulation materials equivalent to preformed cellular plastics thermal insulation materials, conformance to in-house standards equivalent to JIS A 9511 shall suffice. With respect to organics/inorganics mixture thermal insulation materials and inorganic thermal insulation materials, conformance to in-house standards similar to corresponding JIS standards shall suffice.

[Certification Procedure]

The Applicant shall submit a certificate of test results and other data showing

conformance to the applicable JIS standards. If the applied product or the manufacturing plant of the applied product is JIS certified, submission of a photocopy of such JIS certification shall be sufficient for certification of conformance to the present criteria. With respect to JIS-equivalent products, a certificate showing conformance to the in-house standards equivalent to JIS A 9511 shall be submitted. With respect to organics/inorganics mixture thermal insulation materials and inorganic thermal insulation materials, a certificate showing conformance to the in-house standards similar to JIS A 9511 and others shall be submitted.

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May 5,2007	Established (Version 2.0)
November 1,2007	Revised (Adding Category C-4: Version 2.2)
February. 14, 2008	Revised (2-1.(1) Version2.3)
August 21, 2008	Revised (2-1.(10) Version2.5)
December 31,2017	Validity Period

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

## Appendix 1

### Forestry Certification Provided Based on Definition of Terms

Certification criteria	- While balancing economical, ecological, and social benefits, the criteria shall comply with Agenda 21 and Statement of Principles on Forests, and observe related international agreements and conventions.
	- Including solid requirements, the criteria shall promote sustainable forests.
	- Recognized both domestically and internationally, the criteria shall be recommended as part of the process opened to participation by ecological, economical, and social stakeholders.
Certification system	- Certification systems shall have high transparency, maintain nation-wide or international reliability, and can verify requirements.
Certification body	- With fairness and high reliability, certification organizations and groups shall be able to verify that requirements are satisfied, convey the results, and able to execute requirements effectively.

### Certification articles of thinned-out wood and less useful wood

Documents issued by the raw material vendor certifying that the raw material is reused/unused wood or waste plant fibers shall be submitted. If there are multiple vendors, a list of the vendors and list of certification of the top 10 vendors in terms of volume of material traded shall 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 trimming percentage and how many times the forest has been thinned, including the most recent trimming shall also be indicated if possible.

If using less useful wood, the following information shall be submitted. At the same time, official documents stating that the forest has been certified as sustainable by a third party shall be submitted.

- Type of forest (natural regenerated or plantation, etc.), place of production, type of tree; year of tree planting should be added if plantation forest.
- 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.

If using bamboo as the raw material in less useful wood, certificates indicating the following information and photographs/maps of the surroundings of the bamboo grove shall be submitted.

- Type of bamboo, place of production, surrounding conditions, and description that logging is carried out for the purpose of appropriate maintenance and management in environment preservation, as well as management plans and quantity.

**Attached Table 1 CFC's prohibited to use during manufacturing resin foam**

CFC5s	Trichlorofluoromethane	HCFC	Dichlorofluoropropane
	Dichlorodifluoromethane		Chlorodifluoropropane
	Trichlorotrifluoroethane		Chlorofluoropropane
	Dichlorotetrafluoroethane	HFC	Trifluoromethane
	Chloropentafluoroethane		Difluoromethane
Other CFCs	Chlorotrifluoromethane		Fluoromethane
	Pentachlorofluoromethane		1,1,1,2,2-Pentafluoroethane
	Tetrachlorodifluoroethane		1,1,2,2-Tetrafluoroethane
	Heptachlorofluoropropane	1,1,1,2-Tetrafluoroethane	
	Hexachlorodifluoropropane	1,1,2-Trifluoroethane	
	Pentachlorotrifluoropropane	1,1,1-Trifluoroethane	
	Tetrachlorotetrafluoropropane	1,1-Difluoroethane	
	Trichloropentafluoropropane	1,1,1,2,3,3,3-Heptafluoropropane	
	Dichlorohexafluoropropane	1,1,1,3,3,3-Hexafluoropropane	
Chloroheptafluoropropane	1,1,2,2,3-Pentafluoropropane		
	Carbon Tetrachloride		
	1,1,1-Trichloroethane		
HCFC	Dichlorofluoromethane		
	Chlorodifluoromethane		
	Chlorofluoromethane		
	Tetrachlorofluoroethane		
	Trichlorodifluoroethane		
	Dichlorotrifluoroethane		
	Chlorotetrafluoroethane		
	Trichlorofluoroethane		
	Dichlorodifluoroethane		
	Chlorotrifluoroethane		
	Dichlorofluoroethane		
	Chlorodifluoroethane		
	Chlorofluoroethane		
	Hexachlorofluoropropane		
	Pentachlorodifluoropropane		
	Tetrachlorotrifluoropropane		
	Trichlorotetrafluoropropane		
	Dichloropentafluoropropane		
	Chlorohexafluoropropane		
	Pentachlorofluoropropane		
	Tetrachlorodifluoropropane		
	Trichlorotrifluoropropane		
	Dichlorotetrafluoropropane		

	Chloropentafluoropropane	
	Tetrachlorofluoropropane	

## Category C-5 “Sound Absorbing Materials / Soundproof-Antivibration Mat”

### 1. Applicable Scope

- \*Sound absorbing materials                      JIS A 6301
- \*Soundproof-antivibration mat

### 2. Certification Criteria and Certification Procedure

To show conformance to the individual criteria, the Applicant shall submit the respective Attached Certificate forms duly filled in.

In the event re-examination under the present Certification Criteria is sought for a product that is already certified in the Product Category No. 123 “Building Products Using Recycled Material”, the raw materials certification issued by the raw material supplier, which is one of the procedures to show conformance to the applicable criteria 2-1. (2), as well as the certifications procedure (3) and 2-2. (12) may be substituted by filling in necessary items on the Attached Certificate form and declaring further therein that no alterations have been made to the product already certified. (For fluorine and boron indicated in 2-1.(3), the test shall be performed as shown in applicable items of the Certification Criteria).

#### 2-1. Environmental Criteria and Certification Procedure

##### 2-1. Environmental Criteria and Certification Procedure

- (1) The sound absorbing materials shall be classification 0.5 in terms of degree of sound absorption pursuant to JIS A 6301.

Soundproof-antivibration mat shall be measured in accordance with JIS A1440-1 (Acoustics -- Laboratory measurements of the reduction of transmitted impact sound by floor coverings on a solid standard floor -- Part 1: Method using standard light impact source) and JIS A1440-2 (Acoustics -- Laboratory measurements of the reduction of transmitted impact sound by floor coverings on a solid standard floor -- Part 2: Method using standard heavy impact sources), and shall be determined that the measurement result of the soundproof antivibration mat exceeds the reduction criteria of transmitted impact sound by floor coverings on a solid standard floor shown in Table 1 (must satisfy up to the first decimal place). In the case of a product which must be worked in combination with other floor finishing material such as floor spacers, etc., it is allowed to measure the mat in combination with the designated other floor

material.

Table 1 Criteria that shows reduction performance of transmitted impact sound by floor coverings on a solid standard floor

	63 Hz	125 Hz	250 Hz	500 Hz	1k Hz	2k Hz
Reduction volume of light-weight floor transmitted impact sound	/	0 dB	9 dB	15 dB	19 dB	21 dB
Reduction volume of heavyweight floor transmitted impact sound	0 dB	-5 dB	-8 dB	-8 dB	/	/

Note) For the reduction criteria of transmitted impact sound of soundproof antivibration mat, the Housing Performance Indication Standard was referred.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria. In addition, the Applicant shall submit a test report. In addition, for the soundproof and anti-vibration mat, in the event that it is apparent that installing the soundproof and anti-vibration mat would not degrade the reduction volume of heavy-weight floor transmitted impact sound level, the test results of the reduction volume of heavy-weight floor transmitted impact sound may be substituted by explaining to the effect. When the applied product is measured in combination with other floor-finishing material, etc., the detail of the combined floor material other than the applied product must be stipulated.

- (2) Sound absorbing materials shall contain the recycled materials described in Table 2 and use the content ratio or more of the recycled materials stipulated in Table 2. In case to use wooden materials as raw materials, waste paper or reused/unused wood shall be 100% of the wooden part. Regarding to rock wool, the content ratio can be calculated with unused materials as recycled materials.

Table 2 Recycled material content ratio

Type of material used in the product	Name of recycled material	Recycled material content ratio
Glass wool	Glass	80 wt% and more
Rock wool (slag wool)	Slag	85 wt% and more
Woody material	Waste paper, Reused/unused wood	75 wt% and more

Boards	Glass cullet, slag, waste paper, reused/unused wood, recycled plastic, eco-cement	50% wt% and more
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[Certification Procedure]

The Applicant shall fill in the names of recycled materials and their respective contents on the Attached Certificate form and submit it together with the raw materials certifications issued by the respective raw material suppliers. With respect to reused or unused woody materials, the certificate stipulated in Attachment 1 shall be submitted.

- (3) The Product shall conform to the standards concerning elusion of heavy metals and other hazardous substances that are set forth in Attached Table 2 of the enforcement regulation of the Soil Contamination Countermeasures Law (2002 Ministerial Order No. 29 of the Ministry of the Environment) with respect to cadmium, lead, hexavalent chromium, arsenic, mercury, and selenium among the specified hazardous substances listed therein. In case to use slag and/or eco-cement as recycled materials, the product shall meet the standards for boron and fluorine.

However, this item is not applicable for paper and wood.

[Certification Procedure]

For the elusion of applicable substances from the product, the results of tests conducted by an own company or a third party testing body shall be submitted. In case to conduct tests for each material, for the material which does not clearly contain the applicable substances, the certification certified by a material business or an Applicant which shows the product contains no applicable substances is acceptable. However, for recycled materials, tests shall be conducted.

- (4) For products using lumber from dismantled buildings (wood and wooden materials disposed in dismantling), lumber subject to preservatives, termite control agent, 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 Attached Table 3 of the enforcement regulation of the Soil Contamination Countermeasures Law (2002 Ministerial Order No. 29 of the Ministry of the Environment).

[Certification Procedure]

Documents (including work manual, and workflow) certifying that lumber from

dismantled buildings is sorted in use or not used shall be submitted. If using lumber from dismantled buildings, the results of tests conducted by an own company or a third party testing body shall be submitted.

- (5) No foamed resins used in the Product shall have been made by the use of any of the five specified CFCs listed in the attached Table 1, other CFCs, carbon tetrachloride, trichloroethane, or CFC substitutes (HCFC, HFC).

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria.

- (6) Products for which adhesives or paints have been used shall have no emission of toluene or xylene detected at the time of product shipment. “No emissions detected” shall mean no more than the lower quantification limit based on JIS A 1901 “Measuring methods for emission of volatile organic chemicals (VOC), formaldehyde and other carbonyl compounds—small chamber method.”

[Certification Procedure]

The Applicant shall submit the results of tests conducted by a third party testing body or an own company regarding to emission of toluene or xylene. In the event neither toluene nor xylene is added to the Product, adhesives or paints as prescribed component, the aforesaid test may be exempted and the Applicant shall submit a document substantiating no addition of the said substances.

- (7) With respect to sound absorbing materials that use glass wool, rock wool and urethane foam, the requirements for rating as “F four-stars” in terms of formaldehyde release pursuant to JIS A 9504, JIS A 9511, and JIS A 9521 shall be met.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria. In addition, the Applicant shall submit a test report.

- (8) In the case of soundproof-antivibration mat for which adhesives and/or paints have been used, with respect to the question of formaldehyde emission, it shall conform to the applicable JIS standard and JAS standards rated “F four-stars”, and shall be outside the scope of regulations set forth by the Minister of Land, Infrastructure and Transport, respectively. Put differently, the Product shall satisfy the numerical criteria of either a) or b) below:

- a) 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.”

- b) The formaldehyde emission rate is no higher than  $5\mu\text{g}/(\text{m}^2\cdot\text{h})$ , as measured pursuant to JIS A 1901 “Measuring methods for emission of volatile organic chemicals (VOC), formaldehyde and other carbonyl compounds—small chamber method.”

Provided however the following alternatives c) is also accepted:

- c) In the case of adhesives or paints for which JIS or JAS standards exist, the formaldehyde emission rate, as calculated by the use of conversion formula from the results of glass desiccator method measurement set out in the applicable individual standard, is no higher than  $5\mu\text{g}/(\text{m}^2\cdot\text{h})$ .

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria and submit the test results.

In the event the Product used none of the formaldehyde emitting building materials specified by the Building Standards Law and hence is not subjected to formaldehyde regulations, the Applicant shall so state in the Attached Certificate form.

With respect to the Products for which any of the formaldehyde emitting building materials specified by the Building Standards Law are used, the Applicant shall submit a certificate showing that the Product has been rated Class “F four-stars” based on test results according to JIS standard or a document explaining that the product is outside the scope of regulations by the Minister of Land, Infrastructure and Transport.

- (9) The Product shall be accompanied by a manual relating to installation, use, maintenance, disassembly, disposal and recycling that is available for reading by the builder and the building owner. With respect to soundproof and anti-vibration mats, reduction performance of floor transmitted impact sound shall be stipulated, too, and in the event that measurement is conducted in combination of soundproof and anti-vibration mats with other floor material in 2-1.(1), measurement conditions shall be stipulated, too.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria. In addition, the Applicant shall submit a sample of a manual relating to installation, use, maintenance, disassembly, disposal and recycling. Regarding a part of the product’s lifecycle from installation to recycling which is not included in the manual, the reason shall be indicated.

(10) The Product shall be again recyclable after use.

[Certification Procedure]

The Applicant shall explain the recycling method for main materials.

(11) In manufacturing the applied product, related environmental laws and regulations and pollution control agreement (hereinafter referred to as the “Environmental Laws, etc.”) must be followed with respect to air pollution, water contamination, noise, offensive odor, and emission of hazardous substances in the area where the plant performing the final manufacturing process is located.

In addition, the state of compliance with the Environmental Laws, etc. for the past five years from the date of application (whether there is any violation) must be reported. If there is any violation, proper remedies and preventive measures shall have been already taken, and the related Environmental Laws, etc. must thereafter be followed appropriately.

[Certification Procedure]

With respect to the compliance with the Environmental Laws, etc. in the area where the plant performing the final manufacturing process is located, a certificate issued by the representative of the business of manufacturing the applied product or the relevant plant manager (entry or attachment of a list of names of the Environmental Laws, etc.) must be submitted.

In addition, the applicants shall report whether there is any violation in the past five years, including a violation subject to administrative punishment or administrative guidance, and if there is, the following documents in a and b must be submitted:

- a. With respect to the fact of violation, guidance documents from administrative agencies (including order of correction and warning) and copies of written answers (including those reporting causes and results of correction) to such documents (clearly indicating a series of communication);
- b. Following materials (copies of recording documents, etc.) concerning the management system for compliance with the Environmental Laws, etc. in 1)-5):
  - 1) List of the Environmental Laws, etc. related to the area where the plant is located;
  - 2) Implementation system (organizational chart with roles, etc.);
  - 3) Bylaws stipulating retention of recording documents;
  - 4) Recurrence prevention measures (future preventive measures);
  - 5) State of implementation based on recurrence prevention measures (result of checking of the state of compliance, including the result of onsite

inspection).

## 2-2. Quality Criteria and Certification Procedure

(12) The quality of the sound absorbing materials shall conform to any applicable JIS standards. The quality of the soundproof-antivibration mat shall conform to own company's standards, etc.

### [Certification Procedure]

For the sound absorbing materials, a certificate of test results and other data showing conformance to the applicable JIS standards shall be submitted. If the applied product or the manufacturing plant of the applied product is JIS certified, submission of a photocopy of such JIS certification shall be sufficient for certification of conformance to the present criteria. For the soundproof-antivibration mat, a certificate showing conformance to the applicable own company's standards, etc. shall be submitted.

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May 5,2007	Established (Version 2.0)
November 1,2007	Revised (Adding Category C-5: Version 2.2)
February. 14, 2008	Revised (2-1.(1)(2)version2.3)
August 21, 2008	Revised (Terminology, 2-1.(1)(9)(11)Version2.5)
December 31,2017	Validity Period

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

## Appendix 1

### Forestry Certification Provided Based on Definition of Terms

Certification criteria	- While balancing economical, ecological, and social benefits, the criteria shall comply with Agenda 21 and Statement of Principles on Forests, and observe related international agreements and conventions.
	- Including solid requirements, the criteria shall promote sustainable forests.
	- Recognized both domestically and internationally, the criteria shall be recommended as part of the process opened to participation by ecological, economical, and social stakeholders.
Certification system	- Certification systems shall have high transparency, maintain nation-wide or international reliability, and can verify requirements.
Certification body	- With fairness and high reliability, certification organizations and groups shall be able to verify that requirements are satisfied, convey the results, and able to execute requirements effectively.

### Certification articles of thinned-out wood and less useful wood

Documents issued by the raw material vendor certifying that the raw material is reused/unused wood or waste plant fibers shall be submitted. If there are multiple vendors, a list of the vendors and list of certification of the top 10 vendors in terms of volume of material traded shall 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 trimming percentage and how many times the forest has been thinned, including the most recent trimming shall also be indicated if possible.

If using less useful wood, the following information shall be submitted. At the same time, official documents stating that the forest has been certified as sustainable by a third party shall be submitted.

- Type of forest (natural regenerated or plantation, etc.), place of production, type of tree; year of tree planting should be added if plantation forest.
- 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.

If using bamboo as the raw material in less useful wood, certificates indicating the following information and photographs/maps of the surroundings of the bamboo grove shall be submitted.

- Type of bamboo, place of production, surrounding conditions, and description that logging is carried out for the purpose of appropriate maintenance and management in environment preservation, as well as management plans and quantity.

**Attached Table 1 CFC's prohibited to use during manufacturing resin foam**

CFC5s	Trichlorofluoromethane	HCFC	Dichlorofluoropropane
	Dichlorodifluoromethane		Chlorodifluoropropane
	Trichlorotrifluoroethane		Chlorofluoropropane
	Dichlorotetrafluoroethane	HFC	Trifluoromethane
	Chloropentafluoroethane		Difluoromethane
Other CFCs	Chlorotrifluoromethane		Fluoromethane
	Pentachlorofluoromethane		1,1,1,2,2-Pentafluoroethane
	Tetrachlorodifluoroethane		1,1,2,2-Tetrafluoroethane
	Heptachlorofluoropropane		1,1,1,2-Tetrafluoroethane
	Hexachlorodifluoropropane		1,1,2-Trifluoroethane
	Pentachlorotrifluoropropane		1,1,1-Trifluoroethane
	Tetrachlorotetrafluoropropane		1,1-Difluoroethane
	Trichloropentafluoropropane		1,1,1,2,3,3,3-Heptafluoropropane
Dichlorohexafluoropropane	1,1,1,3,3,3-Hexafluoropropane		
Chloroheptafluoropropane	1,1,2,2,3-Pentafluoropropane		
	Carbon Tetrachloride		
	1,1,1-Trichloroethane		
HCFC	Dichlorofluoromethane		
	Chlorodifluoromethane		
	Chlorofluoromethane		
	Tetrachlorofluoroethane		
	Trichlorodifluoroethane		
	Dichlorotrifluoroethane		
	Chlorotetrafluoroethane		
	Trichlorofluoroethane		
	Dichlorodifluoroethane		
	Chlorotrifluoroethane		
	Dichlorofluoroethane		
	Chlorodifluoroethane		
	Chlorofluoroethane		
	Hexachlorofluoropropane		
	Pentachlorodifluoropropane		
	Tetrachlorotrifluoropropane		
	Trichlorotetrafluoropropane		
Dichloropentafluoropropane			
Chlorohexafluoropropane			

	Pentachlorofluoropropane	
	Tetrachlorodifluoropropane	
	Trichlorotrifluoropropane	
	Dichlorotetrafluoropropane	
	Chloropentafluoropropane	
	Tetrachlorofluoropropane	

**Eco Mark Product Category No.123 “Building Products (Materials for Interior Work) Version 2.5” Certification Criteria**  
**Category C-6 Vinyl Flooring**

**1. Applicable Scope**

- \* Vinyl flooring JIS A 5705
- \* Rubber floor tile

**2 Certification Criteria and Certification Procedure**

**2-1. Environmental Criteria and Certification Procedure**

- (1) For the vinyl flooring, the weight percentage of recycled plastic shall be no less than 15% for the total weight of the product. For the rubber floor tile, the weight percentage of recycled plastic shall be no less than 50% for the total weight of the product.

[Certification Procedure]

The Applicant shall fill in the names of recycled materials and their respective contents on the Attached Certificate form and submit it together with the raw materials certifications issued by the respective raw material suppliers.

- (2) The Product shall conform to the standards concerning elusion of heavy metals and other hazardous substances that are set forth in Attached Table 2 of the enforcement regulation of the Soil Contamination Countermeasures Law (2002 Ministerial Order No. 29 of the Ministry of the Environment) with respect to cadmium, lead, hexavalent chromium, arsenic, mercury, and selenium among the specified hazardous substances listed therein.

However, this item is not applicable for paper and fiber.

[Certification Procedure]

For the elusion of applicable substances from the product, the results of tests conducted by an own company or a third party testing organization shall be submitted. In case to conduct tests for each material, for the material which does not clearly contain the applicable substances, the certification certified by a material business or an applicant which shows the product contains no applicable substances is acceptable. However, for recycled materials, tests shall be conducted.

- (3) Products for which adhesives or paints have been used shall have no emission of toluene or xylem detected at the time of product shipment. “No emissions detected” shall mean no more than the lower quantification limit based on Japan Industrial Standard JIS A 1901 “Measuring methods for emission of volatile organic chemicals (VOC), formaldehyde and other carbonyl compounds—small chamber method.”

[Certification Procedure]

The Applicant shall submit the test results conducted by an own company or a third party testing organization for emission of toluene and xylem. In the event neither toluene nor xylem is added to the Product, adhesives or paints as prescribed components, the aforesaid test may be exempted and the Applicant shall submit a document substantiating no addition of the said substances.

- (4) In the case of Products for which adhesives or paints have been used, with respect to the question of formaldehyde emission, the product or used adhesives or used paints shall conform to the applicable JIS standard, are rated “F four-stars” under the JAS standards, and are outside the scope of regulations set forth by the Minister of Land, Infrastructure and Transport, respectively. Put differently, the Product shall satisfy the numerical criteria of either a) or b) below:

- a) 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.”
- b) The formaldehyde emission rate is no higher than  $5\mu\text{g}/(\text{m}^2\cdot\text{h})$ , as measured pursuant to JIS A 1901 “Measuring methods for emission of volatile organic chemicals (VOC), formaldehyde and other carbonyl compounds—small chamber method.”

Provided however the following alternatives c) is also accepted:

- c) In the case of adhesives or paints for which JIS or JAS standards exist,

the formaldehyde emission rate, as calculated by the use of conversion formula from the results of glass desiccator method measurement set out in the applicable individual standard, is no higher than  $5\mu\text{g}/(\text{m}^2\cdot\text{h})$ .

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria.

In the event the Product used none of the formaldehyde emitting building materials specified by the Building Standards Law and hence is not subjected to formaldehyde regulations, the Applicant shall so state in the Attached Certificate form.

With respect to the Products for which any of the formaldehyde emitting building materials specified by the Building Standards Law are used, the Applicant shall submit a certificate showing that the Product has been rated Class “F four-stars” based on test results according to JIS standard or a document explaining that the product is outside the scope of regulations by the Minister of Land, Infrastructure and Transport.

- (5) No foamed resins used in the Product shall have been made by the use of any of the five specified CFCs listed in the attached Table 1, other CFCs, carbon tetrachloride, trichloroethane, or CFC substitutes (HCFC, HFC).

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria.

- (6) In case the Product contains as a prescribed constituents any plastic material that has a halogen in the polymer skeleton, 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. For the plastic product with use of halogen, however, the average length of year to use is 20 years and over, this item is not applicable.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form whether this criteria applies to the Product or not, and, if affirmative, shall submit a document ensuring that proper recovery and recycling will be made at the time of Product disposal, or continuous use of 20 years and over. This Office reserves the right to ask the Applicant to present reports on the recovery ratio (or to conduct audit) after the conclusion of the license agreement, for which the Applicant assumes the obligation to cooperate.

- (7) The Product shall be accompanied by a manual relating to installation, use, maintenance, disassembly, disposal and recycling that is available for reading by the builder and the building owner.

[Certification Procedure]

The Applicant shall state in the Attached Certificate form the conformance (or lack thereof) to this criteria. In addition, the Applicant shall submit a sample of a manual relating to installation, use, maintenance, disassembly, disposal and recycling. Regarding a part of the product's lifecycle from installation to recycling which is not included in the manual, the reason shall be indicated.

- (8) In manufacturing the applied product, related environmental laws and regulations and pollution control agreement (hereinafter referred to as the "Environmental Laws, etc.") must be followed with respect to air pollution, water contamination, noise, offensive odor, and emission of hazardous substances in the area where the plant performing the final manufacturing process is located.

In addition, the state of compliance with the Environmental Laws, etc. for the past five years from the date of application (whether there is any violation) must be reported. If there is any violation, proper remedies and preventive measures shall have been already taken, and the related Environmental Laws, etc. must thereafter be followed appropriately.

[Certification Procedure]

With respect to the compliance with the Environmental Laws, etc. in the area where the plant performing the final manufacturing process is located, a certificate issued by the representative of the business of manufacturing the applied product or the relevant plant manager (entry or attachment of a list of names of the Environmental Laws, etc.) must be submitted.

In addition, the applicants shall report whether there is any violation in the past five years, including a violation subject to administrative punishment or administrative guidance, and if there is, the following documents in a and b must be submitted:

- a. With respect to the fact of violation, guidance documents from administrative agencies (including order of correction and warning) and copies of written answers (including those reporting causes and results of correction) to such documents (clearly indicating a series of communication);
- b. Following materials (copies of recording documents, etc.) concerning the management system for compliance with the Environmental Laws, etc. in 1)-5):

- 1) List of the Environmental Laws, etc. related to the area where the plant is located;
- 2) Implementation system (organizational chart with roles, etc.);
- 3) Bylaws stipulating retention of recording documents;
- 4) Recurrence prevention measures (future preventive measures);
- 5) State of implementation based on recurrence prevention measures (result of checking of the state of compliance, including the result of onsite inspection).

**2-2. Quality Criteria and Certification Procedure**

(9) The quality of the vinyl flooring shall conform to JIS A 5705. The quality of the rubber floor tile shall meet the own standards which conform to JIS, etc. and the quality standards shall be released.

[Certification Procedure]  
 The Applicant shall submit a document certifying the test results and other data to show conformance with JIS A 5705. In the event the Product or the manufacturing site of the Product has been certified by JIS, submission of a copy of certificate issued by JIS shall suffice for the aforesaid purpose.  
 For the rubber floor tile, the Applicant shall submit a certification to show conformance with own standards, and a material to show information disclosure such as a brochure, etc.

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May 5,2007	Established (Version 2.0)
February 25, 2008	Revised (Adding Category C-6 Version 2.4)
August 21, 2008	Revised (2-1.(8) Version2.5)
December 31,2017	Validity Period

Certification Criteria of this Product Category shall be revised as needed.

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