

Eco Mark Product Category No.131
“Products for Civil Engineering Version 1.20” Certification Criteria
Category A. Wood

Japan Environment Association
Eco Mark Office

1. Purpose of Establishing Certification Criteria

In civil engineering/construction-related business that is implemented as part of social infrastructure development, ripple effects in the economy are expected, but at the same time a significant environmental load is imposed on the natural environment of the oceans, rivers and land as well as the living environment. New forms of civil engineering-/construction-related business based on the principles of the “Basic Environmental Law,” such as through harmonization with the natural environment, formation of a good living environment, prevention of global warming by improving energy efficiency, etc., are therefore being explored.

In addition to these kinds of environmental conservation efforts, it was also determined that in the civil engineering/construction-related business it is necessary to promote the control of waste generation (reduction), secondary uses (reuse) and recovery for further use (recycling) in accordance with the “Waste Disposal and Public Cleansing Law,” the “Basic Law for Establishing a Recycling-Based Society,” the “Law Concerning Promotion of the Procurement of Eco-friendly Goods and Services by the State and Other Entities (Green Procurement Law)” and the “Law for Recycling Materials for Construction (Construction Recycling Law).” Furthermore, independent efforts by civil engineering/construction enterprises for reduction of the environmental load, the “Guidelines for Green Procurement in the Construction Industry” were formulated in 2002.

In Japan’s material balance, the proportion attributable to civil engineering and construction-related business accounts for approximately 40% of new resources (2002 White Paper on a Recycling-Oriented Economic System; FY2001 Major Construction Materials Demand Forecast), approximately 20% of industrial wastes and approximately 40% of wastes collected at final landfill sites (2002 Environmental White Paper). It can therefore be expected that an environmentally-sound materials cycle to promote reduction, reuse and recycling will have a major impact on the structure of society.

The load placed on elements of the environment by the civil engineering and construction-related business varies according to many environmental factors such as the site of the business and the methods and types of materials used. As the environmental load may be reduced by applying Eco Mark Product Certification to construction materials, one of the factors affecting this, the Eco Mark Certification Criteria for newly applied products, shall be established to certify such materials as ‘construction products’ after organizing and integrating them with products that are already certified.

The new certification criteria, in addition to minimizing the consumption of new materials and the generation of wastes on the basis of using recycled materials, as has been recommended, and taking into consideration the reduced use of hazardous substances, energy saving, the impact on the ecosystem, etc., that are intended to reduce the environmental load imposed by construction work and long-term use, both of which may be characteristic of construction products, aim at the same time to achieve a symbiotic relationship with nature by creating a secondary natural environment. The concept of the life cycle of materials and products will be introduced into the evaluation, taking into consideration the life stage when the construction work is commenced as a construction product, and as many concrete environmental load items as possible have been selected.

2. Applicable Scope

Wooden tiling/blocks, Wood pavement materials

3. Terminology

Terms for the common standard

Recycle	Materials recycling only; energy recovery (thermal recycling) is not included.
Recycled materials	Post-consumer materials or pre-consumer materials, or a combination of these. However, this product category shall include thinned wood, less useful wood, slag resulting from industrial activities, etc., in recycled materials.
Pre-consumer materials	Materials or rejected products generated from a disposal route in a product manufacturing process, excluding those that are recycled within the same process (plant).
Post-consumer material	Material or product which was disposed of after being used as a product
Prescribed constituents	Material components added for the intended purpose of giving certain characteristics to the products. Impurities that are technically unavoidable in the manufacturing process are not included.

Terms for wood

Reused/Unused wood	Indicates the following: forest thinnings, waste wood, construction waste wood, and less useful wood.
Thinned-out log	Wood produced from a reduction in the density of the tree type that is the objective of management based on the intensity of the forest stand

Waste wood	Used wood (used packing materials, etc.), remainder materials generated in wood processing plants (shavings generated in plywood/lumber plants, etc., low quality chips not used as raw materials for paper, etc.), and wood and wooden materials such as trimmed branches, bark, etc.
Construction waste wood	Wood and wooden materials disposed of as waste during construction work such as from the dismantling of buildings, construction of new buildings, building extensions, renovations, and construction related to other work.
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.
Waste plant fiber	Agricultural residues generated during harvesting and the manufacturing process such as rice hulls, and used packaging materials such as jute bags, etc.
Wooden part	Actual wood (including plant fibers)

4. Certification Criteria and Certification Procedure

Any certification verifying conformity with the criteria shall be signed by the applicant and submitted.

4-1. Environmental Criteria and Certification Procedure

- (1) 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 (organization chart with roles, etc.);
 - 3) Bylaws stipulating retention of recording documents;
 - 4) Recurrence prevention measures (future preventive measures)
 - 5) State of implementation based on the recurrence prevention measures (check results of on-site inspection, etc. as compliance condition).

- (2) For products using lumber from dismantled buildings (wood and wooden materials disposed in dismantling), materials subject to preservatives, termiticides, 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 5 which is provide by the detailed enforcement regulations (December 26, 2002, Environment Ministry Ordinance No. 29) of the Soil Pollution Control Law.

[Certification Procedure]

Documents certifying that wood from dismantled buildings is sorted in use or not used (work manual, workflow, etc.) shall be submitted. If using such waste wood from dismantled buildings, results of tests performed by a third party testing centers or public institutions shall be submitted.

- (3) Wood preservatives shall be approved by the Japan Wood Preserving Association.

[Certification Procedure]

The use of wood preservatives shall be described in the Application Form for Eco Mark Certification for details. A document stating the reasons for their use and certifying that the preservative agents have been approved by the Japan Wood Preserving Association shall be submitted.

- (4) 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 who issues the above-mentioned certificates or the material supplier 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 website 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.

- (5) Plastic additives shall follow positive lists specified by the industry’s own standards. As for the elution of harmful substances, the plastics shall conform to the standards concerning elution of harmful substances that are set forth in Attached Table 4 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, selenium, among the specified hazardous substances listed therein. In lieu of the requirements of the Enforcement Regulation of the Soil Contamination Countermeasures Law, conformance of the Product to the standards concerning hazardous substances set forth in ISO 8124-3 may be accepted.

In the case of using flame retardant, the product shall have no flame retardant of 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) added as prescribed constituents. 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.

[Certification Procedure]

To show that the plastic resin (including recycled plastics) and plastic additives meet the requirement on the harmful materials, a certificate issued by the raw materials supplier, or a certificate describing the results of tests carried out by an independent testing institution shall be submitted. In cases where no raw materials contain any of the corresponding chemical substances as a prescribed constituent, a document prepared by the raw materials supplier and the applicant that proves there is no content of the chemical substance shall be acceptable.

- (6) In case of the product which is added the plastics containing halogen in polymer backbones 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 parts shall be directed to material recycling. However, this item is not applicable to the product with 20 years or more of the average length of year to use, even if the product uses plastics containing halogen.

[Certification Procedure]

Whether this criteria applies to the Product or not shall be stated in the Attached Certificate, and, if affirmative, a document ensuring that proper recovery and recycling will be made at the time of Product disposal, or continuous use of 20 years and more shall be submitted.

Eco Mark Office reserves the right to ask the 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 percentage of reused/unused wood and waste plant fiber as materials for the wooden part shall be 100% by mass.

Note: The expression “% by mass” means 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

[Certification Procedure].

A document issued by the raw materials supplier certifying that the raw material is reused /unused wood shall be submitted.

The types of recycled materials, the proportional content of recycled materials and materials other than recycled materials and control procedures shall be stated in

the product weight certificate

For thinned-out log and less useful wood, a certificate given in Attached table 3 shall be submitted.

- (8) As for products in which materials other than reused/unused wood and waste plant fiber are combined, the wooden portion shall be 70% or more by mass of the entire product, including added materials.

[Certification Procedure]

The applicant shall state the total mass of the product, the respective mass of the wooden parts as well as the materials used other than the wooden parts, stating the percentage of wooden parts and materials other than wooden parts (proportional mass), to certify that wooden parts are 70% or more of the entire product, provided that consumables necessary for the functional operation or use of the product, excluding the wooden parts and materials other than wooden parts, such as varnish and adhesives, shall be excluded from the total product mass.

- (9) Paints if used for the products shall conform to the criteria of Eco Mark Product Category No. 126, "Paints Version 2" or later version.

[Certification Procedure]

Products shall conform to the certification procedures prescribed in the "Conformance to Certification Criteria" of Eco Mark Product Category No. 126 "Paints Version 2." or later version. If using Eco Mark certified paint, the product name and certification number of the relevant paint can be indicated in the Application Form for Certification and Use of the Eco Mark in place of a statement certifying conformity with the application criteria.

- (10) The packaging of products shall give consideration to the ease of recycling. Plastic materials used for packaging shall not be added plastics that contain halogens in polymer backbones as prescribed constituents.

[Certification Procedure]

The packaging condition of the product and packaging materials shall be specifically described in the Attached Certificates (supplementary pictures, photographs, etc. are acceptable). In addition, for plastic material used for packaging, it shall be stated in the Attached Certificates as to whether halogen has been added to polymer backbones.

4-2. Quality Criteria and Certification Procedure

- (11) Quality requirements for products, for which JIS, JAS or other equivalent standards have been established, shall conform to the relevant standards.

Other products, for which the JIS or the equivalent has established measuring methods for quality requirement items, shall conform to the relevant similar JIS or its equivalent.

[Certification Procedure]

A certificate shall be submitted verifying conformity with the relevant quality

standards.

5. Product Classification, Labeling, etc.

- (1) The products shall be classified according to each applicable product in “2. Applicable Scope” (Attached table 1) and brand of the product. The product is not classified by size or color; provided that products made of different materials shall be applied separately.
- (2) Regarding products which correspond to designated procurement items under the "Act on Promotion of Procurement of Eco-friendly Goods and Services by the State and Other Entities (Green Purchasing Law)", conformity status for evaluation criteria will be announced on the website of the Eco Mark Office.
- (3) In principle, Eco Mark shown as below shall be indicated on the product main body. The licensees of Eco Mark Utilization Contract who own the Eco Mark products shall also be allowed to use the indication and the certification number as before.



(Note for the indication)

- *For indicating the logo, Eco Mark certification number (eight-digit number) or the name of the licensee using the logo shall be appeared.
- * Such expression as “Eco Mark product” can be used following the 2.(2) of the Guide to Eco Mark Usage.
“Eco Mark product”, “#Eco Mark”, “www.ecomark.jp”, “Eco Mark Certificate”
- * If a licensee makes an environmental claim of the Eco Mark certified products associating with the Eco Mark logo, please comply with the “Environmental Labeling Guidelines” of the Ministry of the Environment of Japan.
(<https://www.env.go.jp/policy/hozen/green/ecolabel/guideline/>)
- * The Guide to Eco Mark Usage shall be followed for any cases not listed above.
(<https://www.ecomark.jp/office/guideline/guide/>)

January 15, 2005	Established
February 23, 2005	Revised (4-1-3.L(75)、(76))
May 13, 2005	Revised (4-1-3. (35)、(94), 5-1-3.(73))
September 8, 2005	Revised (Terminology)
April 28, 2006	Revised
October 19, 2006	Revised
February 9, 2007	Revised
April 13, 2007	Revised

October 5, 2007	Extension of Expiration date
February 14, 2008	Extension of Expiration date
June 9, 2008	Revised
August 21, 2008	Revised
May 1, 2009	Revised
November 4, 2009	Revised
March 1, 2011	Revised (5.Indication, Version1.14)
June 15, 2012	Revised (4-1.(4),deletion of 5.(2)(3) Version1.15)
February 1, 2013	Revised (Version1.16)
February 1, 2014	Extension of Expiration date
December 1, 2014	Revised (Category F, Version1.17)
March 1, 2018	Revised (4-1.(4), Version1.18)
August 10, 2018	Revised (Category E-J, addition of 5.(2)(3), Version 1.19)
January 7, 2019	Extension of Expiration date
April 1, 2022	Revised (Category E ,J: Version 1.20)
January 31, 2026	Expiration date

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

Attached table 2 -- Omitted --

Attached table 3 Criteria and certification for thinned out wood and less useful wood

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. 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 or man-made, etc.), place of production, type of tree, and year of tree planting if man-made 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 small-diameter wood of less useful wood is used, and if it applies to a or b described below, a document certifying that forests were certified as sustainable by a third party as listed in the table below shall also be submitted.

- 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.

Table Requirements for Forest Certification

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.

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.