

Eco Mark Product Category No.138

**“Building Products (Materials for Supplies) Version1.9”
Certification Criteria
D-2 Deck plates**

Japan Environment Association
Eco Mark Office

1. Purpose of Establishing Criteria

Omitted.

2. Applicable Scope

Deck plates for composite slabs

3. Terminology

Omitted.

4. Certification Criteria and Certification Procedure

4-1. Environmental Criteria and Certification Procedure

(1) The product shall be a deck plate that forms a fireproof structure floor in which resource saving of such materials as a steel material, concrete, form, refractory material, etc. is made. Specifically, it shall be a deck plate for deck composite slabs, an amount of concrete to be used in construction shall be equivalent to or lower than that of a product of same type (deck plate whose shape such as the number of ridges per unit width or height of deck is almost equivalent, as the case may be), and it shall have obtained the floor fireproof structure certification of the Minister of Land, Infrastructure, Transport and Tourism in the following specification conditions, as an uncoated fireproof structure:

- Supporting conditions: Continuous support or simple support
- Allowable span: 2.5 m (or longer than that)
- Allowable live load: Live load indicated in Article 85, Building Standards Act, Enforcement Order (or more)
- Fire-resistant reinforcing bar: Not required.

[Certification Procedure]

The applicant shall indicate in the Attached Certificate whether or not the product complies with this item, and submit a description of materials needed in construction and a certificate (including the scope) that the product has obtained the official certification (Minister certification) as a fireproof structure.

(2) Board thickness of the deck plate shall be thinner than the thickness of 1.2 mm. In addition, the product weight shall be made lighter than a product of similar type.

[Certification Procedure]

The applicant shall indicate in the Attached Certificate whether or not the product complies with this item, and submit a reference material about the product weight and board thickness.

(3) The product shall consider an amount and energy consumption of a new resource to be committed that becomes necessary in the manufacturing phase.

[Certification Procedure]

The applicant shall indicate in the Attached Certificate whether or not the product complies with this item, and submit a reference material indicating an amount and energy consumption of a new resource to be committed per ton of crude steel in the manufacturing phase.

(4) For the composition of metal materials, the product shall use a material having general components in Japan, assuming that it will be recycled to a material of same system after being used. In addition, no different alloy types that are difficult to separate and select (e.g., SUS 304 and SUS 316, etc.) shall be used in combination.

[Certification Procedure]

The applicant shall indicate in the Attached Certificate whether or not the product complies with this item, and state JIS number under which a metal material falls, and a material name of alloy types to be used in the product.

(5) The product shall minimize consumption of rare metals (31 types of minerals defined by the Rare Metal Overall Measure Special Subcommittee of the Mining Industry Council of the Ministry of Economy, Trade and Industry) whenever possible. (The chemical components of metal materials shall follow JIS under which the product falls. Of major elements to be added to ensure fire-resistance performance, for any alloy elements that are not specified in JIS, their additive amounts shall be equivalent

to or lower than the amount of other rare metals specified in JIS.)

[Certification Procedure]

The applicant shall indicate in the Attached Certificate whether or not the product complies with this item, and submit an example of chemical component table of a metal material. If any rare metal is used, the applicant shall indicate whether or not the product complies with this item, and exemplify a case that they are making efforts to control consumption of the rare metal, or the chemical component of alloy follows JIS. Of major elements to be added to ensure fire-resistance performance, for any alloy elements that are not specified in JIS, the applicant shall exemplify a case that their additive amounts shall be equivalent to or lower than the amount of other rare metals specified in JIS

(6) The product shall be accompanied by a manual relating to installation, use, maintenance/management, disassembly, disposal and recycling is available for reading by the builder and the building owner. In addition, any information necessary for designing/construction, such as an intended purpose of the deck plate, scope of fire resistance certification (allowable live load, allowable span, supporting conditions), specifications of major construction materials, etc. shall be clearly indicated.

[Certification Procedure]

The applicant shall indicate in the Attached Certificate whether or not the product complies with this item, and a sample of a manual relating to installation, use, maintenance/management, disassembly, disposal and recycling shall be submitted. 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 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. (Entry example 3)

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).

4-2. Quality Criteria and Certification Procedure

(8) The quality shall comply with JISG 3352 “Steel Decks” and Notice No. 606 of the Minister of Land, Infrastructure, Transport and Tourism of H19 (2007) “Matter defining the technological standards necessary for safety related to a method for structuring of a corresponding floor slab or roof slab in a case in which a deck plate slab is used for a deck slab or roof slab that is a major part for structural resistance”.

[Certification Procedure]

The applicant shall submit a certificate such as test results indicating that the product complies with a corresponding standard. If the applied product or manufacturing plant of the applied product has obtained the JIS certification, submission of a copy of the JIS certificate shall be able to be substituted for a certificate of compliance to JIS.

5. Product Classification, Indication and Others

Omitted.

May 5, 2007	Established: (Version 1.0)
January 15, 2012	Revised (D-1 and 2 added, Version1.7)
Term of Validity	March 31, 2017

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