

## Eco Mark Product Category No.139

# “Biodegradable Plastic Products Version 1.0” Certification Criteria (Draft)

—Applicable Scope—

- A. Farm materials
- B. Civil construction materials
- C. Material for composting

Established: July 1, 2007 (scheduled)  
Term of validity: June 30, 2012 (planned)

Japan Environment Association  
Eco Mark Office

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**1 . Applicable scope**

**A. Farm materials**

Mulching film for agriculture, seedling raising pot, guide string/net for climbing plants

Net for agriculture (including animal net, bird net, insect screen)

**B. Civil construction materials**

Drainage materials, waterproof cloth, sandbag, vegetation sheet

**C. Material for composting**

Compost bag (including those for business and for household), net for kitchen sink

**2. Certification Criteria and Certification Procedures**

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

(1) The Product shall consist solely of biodegradable materials and further biodegradable plastic (including additives, fillers and the like) shall account for no less than 50% of the total weight of the product. Metals or other materials shall not be used.

**【Certification Procedures】**

The compositions of the product by materials and their respective weights shall be shown in the Attachment.

(2) If the Product uses as its raw material any plant-derived biodegradable plastic or natural organic material, the farmland and the mode of production of the raw material shall not be such that would adversely affect the local ecological system.

**【Certification Procedures】**

A self-certificate shall be submitted declaring that the farmland in which the raw material is cultivated was not converted from natural landscape in less than ten years prior to the date of application.

(3) The Product shall have a six-month biodegradability of no less than 60% according to JIS K 6950/6951/6953 or ISO 14851/14852/14855. In the event the biodegradability test is conducted for each material, however, every material shall satisfy the above criterion independently. Furthermore, organic additives shall have a biodegradability of no less than 60% according to OECD 301C (modified MITI method). Any material that accounts for less than 1% by weight shall be exempted from biodegradability test, and the aggregate total weights of such materials shall not exceed 5% by weight of the Product.

**【Certification Procedures】**

The grouping of materials for each of which the degradability test was conducted shall be clarified and the test results showing conformance to the above criterion shall be submitted. The grouping of materials shall be at the discretion of the applicant. The names, respective weights and the ratios to the total weight of the Product of organic materials exempted from the biodegradability test shall be shown.

(4) Products listed in Table 1 shall be subjected to a 12-week test according to ISO 16929 or ASTM D6002, and the weight of residues of size 2mm or greater shall be no more than 10 wt% (dry basis) of the Product that was fed.

**【Certification Procedures】**

Test results showing that the Product satisfies the degree of degradation required by the Certification Criteria shall be submitted.

(5) The Product shall conform to the standard values (weight, thickness, etc.) per functional unit that are shown in Table 2.

**【Certification Procedures】**

The weight of Product per functional unit shall be indicated in the Attachment to show conformance to the standard value.

(6) In the course of production of the Product, any applicable environmental laws and regulations as well as pollution prevention agreements shall be observed with respect to air pollution, water contamination, noise, vibration, obnoxious odor, emission of hazardous substances.

**【Certification Procedures】**

A self-certificate issued by the general manager of the plant in which the Product is produced shall be submitted declaring that the environmental laws and regulations and the like locally applicable to the plant site have been duly observed and no violation cases have taken place during the five-year period

preceding the date of application.

- (7) The Product shall not contain any of the heavy metals listed in Table 3.

**【Certification Procedures】**

A certificate certifying that the heavy metals listed in Table 3 are not contained in any of the materials used in the Product shall be submitted, or alternatively, test results on heavy metal contents shall be submitted.

- (8) The substances that are generated by the biodegradation of the Product shall produce no environmental toxicity. In specific terms, the Product shall be mixed with compost or soil at the rate of 10 wt% or higher (“sample fertilizer”), which shall be mixed with two or more kinds of blank soil (“sample soil”) at the rate of 50 wt% or higher each. Tests shall be conducted according to the Notice by the Director General of the Bureau of Agriculture, Sericulture and Horticulture of the Ministry of Agriculture, Forestry and Fisheries (59 Nosan No.1943) “Method of Cultivation Test on Harm to Plants.” No adverse effect upon the germination ratio or growth of *Brassica rapa* var. *peruviridis* (“sample crop”) shall be observed.

**【Certification Procedures】**

A test shall be conducted according to 59Nosan No.1943, and test results shall be submitted to show the Product-containing soil has no germination inhibition or growth regulatory actions on the plant.

- (9) Attention shall have been paid to the weight reduction and recycling of the Product packaging. If plastic materials are used for packaging, the polymer skeleton shall not include any halogens as formulation ingredient.

**【Certification Procedures】**

A detailed description of the Product packaging as well as the packaging materials and their raw materials shall be made in the Attachment. It may be supplemented by photographs and illustrations.

- (10) The Product for Applicable scope “C. Material for composting --- net for kitchen sink” shall be over 1.5mm mesh and shall not be of a design that would be substantially detrimental to its dehydrating function (such as an excessively small number of mesh openings).

**【Certification Procedures】**

The size of mesh openings and the results of mesh size test shown in Table 4 shall be mentioned in the Attachment.

(11) The user handbook or catalog shall contain descriptions about the items (a) through (d) below with respect to the method to use the Product. In the event the Product is packaged, the package shall contain descriptions about the items (a), (c) and (d) below. In the event two or more pieces of Product for civil construction material purposes are packaged into one, there shall be a description about the items (c) and (d) on every piece of the Product.

- (a) That this is a product made of biodegradable plastic and will degrade itself in natural environment if the use method referred to in (c) below is observed;
- (b) The minimum duration during which the Product can display its intended performance if properly used;
- (c) The proper place and use method of the Product (the method of construction as well, if the Product is a civil construction material.);
- (d) That non-compliance with the use method referred to in above (c) could constitute illegal dumping and other violations of laws, resulting in penalties.

**【Certification Procedures】**

Users handbook (or its photocopy) that describes the use method of the Product shall be submitted.

## **2-2. Quality Criteria and Certification Procedures**

(12) The Product quality shall conform to any applicable JIS standard, voluntary standards of the industry or the like. Sufficient quality control shall be made during the manufacturing step. With respect to Applicable Scope “B. Civil construction materials --- vegetation sheet,” the quality and safety of the Product according to in-house standards or the like shall have been confirmed by a public test organization using a publicly accepted test method.

**【Certification Procedures】**

A certificate certifying conformance to the applicable quality standards shall be submitted. In addition, a certificate issued by the general manager of the plant in which the Product is manufactured shall be submitted certifying that sufficient quality control has been made during the manufacturing step and no violations have been committed.

Established (scheduled): July 1, 2007

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