

EL766. Measured Rate System Garbage Bag

[EL766-2008/1/2008-213]



1. Scope

These standards apply to the measured rated system garbage bags manufactured with a single material, more than 2 type biodegradable resin or waste composite resin (including waste composite textile) as materials.

2. Definitions

2.1

“Synthetic resin” refers to the products mixed with expedients or fillers to make single or multi-type high polymer products and enhance the product performance except the main materials of high polymer.

2.2

“Waste synthetic resin” refers to ‘Post-consumer waste synthetic resin and ‘Pre-consumer waste synthetic resin’.

2.3

“Post-consumer generated waste synthetic resin” refers to the waste synthetic resin discharged after its purpose of use after having been processed with the normal distribution stages as a product.

2.4

“Pre-consumer generated waste synthetic resin” refers to the waste synthetic resin no used as products as they are generated as process scraps in the product production process. However, it excludes the waste synthetic resin which is generated in the product manufacturing process and rein putted to the same process as materials.

2.5

“Use rate of waste synthetic resin” refers to the weight % of waste synthetic resin among the synthetic resin materials used as products.

2.6

“Biodegradable product” refers to the products with only biodegradable resin which comprises the product. "Resin" mentioned here includes 'natural polymer' such as starch, cellulose, tree starch, etc. except 'synthetic resin' which uses chemical methods or microorganisms.

2.7

“Biodegradable resin” refers to biodegradable resin that can be used as normal resin in the use stage of the product, and which is biodegraded by microorganisms in the natural system in the composting condition after use such as reclamation.

2.8

“Biodegradability” refers to the average biodegradability value calculated by the regulated method for the same specification using the accumulated amount of carbon dioxides emitted by ultimate aerobic biodegradability when testing based on ISO 14855(Determination of the ultimate aerobic biodegradability and disintegration of plastic materials under controlled composting conditions - Method by analysis of evolved carbon dioxide) or equivalent KS specification (KS M 3100-1).

2.9

“Ultimate aerobic biodegradation)” refers to the ultimate transformation of organic compounds including high polymer substances to carbon dioxides, water, inorganic salts, and new biomass by microorganisms under the aerobic condition.

3. Certification Criteria

3.1 Environmental Criteria

3.1.1

Recycled Synthetic Resin Measured Rate System Garbage Bag

3.1.1.1

In the manufacturing process, the waste synthetic resin shall be used over 40 weight% regarding the resources consumption. However, if only the waste synthetic resin generated after product use as materials, 30% or more weight % shall be used.

3.1.1.2

Organic tin compounds (TBT, TPT), lead compounds and cadmium compounds shall not be used as stabilizers or activators.

3.1.2

Biodegradable measured rate system garbage bags

3.1.2.1

Regarding the biodegradability of products at the disposal stage after use, only biodegradable resin shall be used for resins among the product composition materials. In this case, inorganic additives and organic additives such as stabilizer, surfactants, pigments, etc. shall be regarded as biodegradable resins.

3.1.2.2

The value of ultimate biodegradability measured after cultivating resins comprising the product in accordance with the respective regulations for the period within 180 days shall be 90% or over of the ultimate biodegradability for the standard substances. However, if the measured biodegradability measured after cultivating for the first 45 days is 60% or more of the biodegradability value for standard substance and the biodegradability continue and clear biodegradability can be confirmed as it continues at the time period, it is regarded as conforming to the biodegradability standards.

Note) Biodegradability test substance shall be collected from formed product pellets or the representative shape of the expected final products], and they are frozen and powdered and sifted through the sieve for test with a normal dimension of 250 μm (60 mesh) in accordance with KS A 5101(Sieve for test).

3.1.2.3

Lead compounds and cadmium compounds shall not be used as additives of resin and the harmful elements contained in resin shall conform to the following standards.

Item	As	Pb	Cd	Hg	Cr	Cu	Ni	Zn
Criteria[mg/kg]	≤ 25	≤ 50	≤ 0.5	≤ 0.5	≤ 150	≤ 200	≤ 25	≤ 500

3.2 Quality Criteria

3.2.1

If Korean Industrial Standards are available as a national standard of the product in question, it should satisfy the quality or performance criteria of the standard in question. However, items related to “3.1 Environmental Criteria” are excluded.

3.2.2

If no Korean Industrial Standards are available as a national standard of the product in question, it should satisfy the quality and performance criteria according to the following sequence. However, the items related to “3.1 Environmental Criteria” are excluded. Also, if the E-Mark Certification Criteria Setting Committee determines that the applying criteria are not reasonable considering the characteristic of the product, it should satisfy the standards that were modified by the committee (test item, test method, standards, etc.).

3.2.2.1 National standards other than Korean Industrial Standards.

3.2.2.2 Overseas national standards or international standards regarding the product quality in question.

3.2.2.3 Standards of the organizations at home and abroad that are referred by the current E-mark target product and certification standard.

3.2.2.4 A private standard that is recognized as higher than the national standard in the industry of the product in question.

3.3 Consumer Information

Indication of matters that contributes to the certification reasons of the products at the consumption stage of the products (Effective resources recycling, or superior biodegradability, ecology system toxicity reduction)

4. Test Method

Certification Criteria		Test and Verification Method
Environment	3.1.1	Verification of submitted documents

Criteria	3.2.1	3.2.1.1	Verification of submitted documents
		3.2.1.2	<ul style="list-style-type: none"> ▪ KS M ISO 14855-1 (Determination of the ultimate aerobic biodegradability of plastic materials under controlled composting condition — Method by analysis of evolved carbon dioxide — Part 1: General method) or ▪ Test report by an accredited testing laboratory in accordance with KS M 3100-1(Measurement of aerobic biodegradability and destruction level of plastics under the decomposing condition - Part 1: Appropriately generated carbon dioxides fixed amount method) or equivalent or above.
		3.2.1.3	Verification of submitted documents and test report by an accredited testing laboratory in accordance with the test methods of KS M 0016(Atom Extinction Analysis Method General Rules), KS M 0032(High-frequency Inductive Coupling Plasma Emission Spectrum Analysis Method General Rules) test methods
Quality Criteria		Test records of publicly authorized organizations depending on the respective specifications or certifications for the equivalent standards or above	
Consumer Information		Submitted Document Checking	

Note) As for formed products, in case of proving that it is manufactured by using the engineered materials certified with environment mark as 'Biodegradable resin product' in accordance with 'the simple test method for the quality of materials of biodegradable resin' specified in <Annex Table> 'EL724. Biodegradable Resin Products', it can be regarded as conforming to (B)-2) and (C)-3) of environment related standards after the review of the Environment Mark Certification Review Committee. However, it is not the case if a biodegradable test records in accordance with the methods regulated in the Environment Mark Certification Committee is required.

4.1 General matters

4.1.1

One test sample shall be required for each applied product. Only if more than one test sample is needed, the former requirement may not be met.

4.1.2

Test samples shall be collected at random by eco-label certification body from products in market or those in storage at the production site.

4.1.3

The result of test shall be numerically set according to KS Q 5002 (Statistical interpretation method of the data – Part 1: Statistical description of the data).

5. Reasons for certification

“Use of recycled materials or superior biodegradability, Bio system toxicity reduction”

Common Criteria, Notice No. 2012-36, the Ministry of Environment

1. Eco-label products must follow the following provisions with regard to the proper treatment of environmental pollution substances, such as air and water wastes and noxious chemical substances emitted in the process of manufacturing or service operation.

A. When first applying for certification, the product manufacturer should observe the environment related laws and agreements pertaining to the region where the production factory or the place of service operation is located for a period of one year prior to the date of application. Any case of violation of the penalty clause will be verified by confirming documents involved during a period of one year to the date of application. Regarding any violation not related to the penalty clause, confirmation will be made on the completion of appropriate measures.

B. A person who has received a certification of eco-labeling shall observe the environment related laws and agreements pertaining to the region where the production factory or the place of service operation is located during the period of certification. However, regarding any violation besides a penalty, confirmation will be made on the completion of appropriate measures.

2. As a general rule, information for consumers shall be indicated on the surface of the product in such a way not to be easily erased. However, in case that indication on the surface of the product is impossible or undesirable, it can be indicated on the appropriate part such as product packaging, product guidebook and user's manual that consumers can recognize. However, the service information should be indicated inside and outside of the place of service operation. In case that indication inside and outside of the place of service operation is impossible or undesirable, it can be indicated on the appropriate part such as an agreement, letter of delivery, letter of guarantee, and PR materials that consumers can recognize.

3. In order to establish fair trade and to protect consumer, the applicant for eco-label and the holder of eco-label license shall observe the Act on the Fairness of Indication and Advertisement with respect to the environmental aspects of the product.

4. For Various standards referred in the certification criteria by target product, the latest revised edition applies at the date of application, if not specified otherwise.

5. In applying the quality related criteria for each target product, if no standard is available that can be applied as the quality criteria, the president of Korea Environmental Industry & Technology Institute (KEITI) (hereafter referred to as "president of KEITI") may establish and operate the quality criteria for the product involved after review by a competent committee.