

# **EL721. Plastic Products**

## **[EL721-1992/5/2004-58]**



### **1. Scope**

The criteria shall apply to the product formed and manufactured mainly based on waste plastic (including waste synthetic fiber). However, the product specified with separate certification criteria, the product whose purpose could be confused with the reason for certification (available resource recycling), the product that needs safety such as toy and tableware and parts that are not finished goods shall be excluded.

### **2. Definitions**

**2.1** “Plastic” refers to the singular or multi-type polymer product and the product mixed with an additive or filler in addition to polymer, main raw material, in order to reinforce the performance of product.

**2.2** “Waste plastic” refers to the ‘post-consumer waste plastic’ and ‘pre-consumer waste plastic’.

**2.3** “Post-consumer waste plastic” refers to the plastic that finishes its purpose of use and is let out after passing through normal circulation stages.

**2.4** “Pre-consumer waste plastic” refers to the unused waste plastic as a product that is generated in a form of scrap in the manufacturing process of the product. However, the waste plastic that is generated in the manufacturing process of the product and then used again as raw material in the same process is excluded.

**2.5** “Usage rate of waste plastic” refers to the weight percentage of waste plastic amount among the raw materials that are used as products.

### 3. Certification Criteria

#### 3.1 Environmental Criteria

3.1.1 With respect to the resource consumption in manufacturing process, the product shall comply with the following requirements.

3.1.1.1 Product shall use plastics as component materials by more than 50 wt%.

3.1.1.2 Usage rate of waste plastic shall comply with the following requirements.

- a) Plastic product with singular material, the product assembled only with more than 2 types of plastic that can be easily separated into singular plastic, and the product assembled with plastic and other materials that can easily separate singular plastic shall use waste plastic by more than 40 wt%. However, in case that only post-consumer waste plastic is used as raw material, more than 30 wt% shall be used.
- b) The product assembled only with more than 2 types of plastic that can be hardly separated into singular plastic, and the product assembled with plastic and other materials that can be hardly separated into singular plastic shall comply with the following requirements. In case that waste materials apart from waste plastic are additionally used, the value of deducting the amount of added waste materials from the weight of product shall be regarded as the weight of product.

Purpose	Usage Rate of Waste Plastic [wt%]	
	Mixed Use with Pre-consumer or Post-consumer Waste Plastic	Only Use of Post-consumer Waste Plastic
Civil Engineering / Construction Materials	≥ 60	≥ 40
Parts for Car	≥ 25	≥ 20
Stationary / Household Appliances	≥ 50	≥ 40
Other products	≥ 80	≥ 60

3.1.2 With respect to use of chemical substances in manufacturing process, the product shall comply with the following requirements.

3.1.2.1 Regarding foaming product, substances with zero ODP shall be used as foaming agent.

**3.1.2.2** Polybrominated biphenyls (PBBs), polybromodiphenyl ethers (PBDEs) and short-chain chlorinated paraffins (C=10~13) whose chlorine concentration is 50% or more shall not be used as flame retardants.

**3.1.2.3** Triphenyl tins (TPT), tributyl tins (TBT), lead compound and cadmium compound shall not be used as stabilizer or activator.

**3.1.3** With respect to recycling in manufacturing process and recyclability of the product at disposal stage, regarding plastics (weighing 25g or more and covering a flat surface of 200mm<sup>2</sup> or more) used for plastic product with singular material, the product assembled only with more than 2 types of plastic that can be easily separated into singular plastic, and the product assembled with plastic and other materials that can easily separate singular plastic, each separable plastic part shall be visibly marked with material identification to facilitate separation and collection in disposal. However, in case that the mark of separation and release is on the product or packaging material in accordance with the law on resource saving and recycling promotion, the product shall be regarded to satisfy the requirement.

## **3.2 Quality Criteria**

**3.2.1** Waterway, slope protection bloc, rainwater catcher for road, sun block prop for breeding ginseng, plastic levee, ondol (hypocaust) pipe arrangement panel, tree protection board and prop, mat for car floor, plastic stick-board-stake, urethane floor material, plastic palette, snow removal sand box, waste separating and collecting box and urethane waterproof sheet shall satisfy respectively the quality criteria of KS M 3492 (recycled plastic waterway), KS M 3493 (recycled plastic slope protection bloc), KS M 3494 (recycled plastic rainwater catcher for road), KS M 3495 (recycled plastic sun block prop for breeding ginseng), KS M 3496 (recycled plastic levee), KS M 3497 (recycled plastic ondol pipe arrangement panel), KS M 3498 (recycled plastic tree protection board and prop), KS M 3499 (mat for car floor), KS M 3513 (recycled plastic stick, board and stake), KS M 3524 (recycled urethane floor material), KS M 3525 (recycled plastic palette), KS M 3527 (recycled synthetic resin snow removal sand box), KS M 3528 (recycled waste separating and collecting box).

**3.2.2** If Korean Industrial Standard for the applied product is available, the product shall satisfy the quality requirements in accordance with the relevant KS.

**3.2.3** If Korean Industrial Standard for the applied product is not available, the product shall satisfy the quality requirements in accordance with the KS applicable to the product with the same or similar function, or in accordance with the standard set for the product which is subject to preferential purchase according to ‘Enforcement Decree of the Act on Contract to Which the State is a Party’.

**3.3 Information for Consumers**

Indication of the reason of certification (resource saving or use of recycled materials)

ex) Usage rate of waste plastic, phrase informing of the recyclability of the product after use (confined to recyclable products), characteristics or merits related to the quality or safety of the product such as no use of harmful substances

**4. Test Methods**

Certification Criteria		Test and Verification Methods
Environmental Criteria		Verification of submitted documents
Quality Criteria	3.2.1	Test report by an accredited testing laboratory in accordance with KS M 3492 (recycled plastic waterway), KS M 3493 (recycled plastic slope protection bloc), KS M 3494 (recycled plastic rainwater catcher for road), KS M 3495 (recycled plastic sun block prop for breeding ginseng), KS M 3496 (recycled plastic levee), KS M 3497 (recycled plastic ondol pipe arrangement panel), KS M 3498 (recycled plastic tree protection board and prop), KS M 3499 (mat for car floor), KS M 3513(recycled plastic stick, board and stake), KS M 3524 (recycled urethane floor material), KS M 3525(recycled plastic palette), KS M 3527 (recycled synthetic resin snow removal sand box), KS M 3528 (recycled waste separating and collecting box)
	3.2.2~3.2.3	Test report by an accredited testing laboratory in accordance with the relevant standard or certificate of equivalent
Information for Consumer		Verification of submitted documents

## **4.1 General Matters**

- 4.1.1** One test sample for each applied product is required in principle with the exception that more than one test sample is necessary.
- 4.1.2** Test sample shall be collected at random by eco-label certification body from products on the market or those in storage at the production site.
- 4.1.3** Test result shall be numerically set according to KS A 3251-1 (Statistical interpretation of data – Part 1: Statistical presentation of data).

## **5. Reasons for Certification**

“Resource-saving (confined to recyclable products) or use of recycled materials”

## **[Common Criteria]**

1. With respect to the proper disposal of environmental pollutants such as air pollutants, water pollutants, waste materials and harmful chemical substances derived from manufacturing process, the product applied for eco-label shall observe the environmental laws and agreements relevant to the region where the facility is located. It is confirmed and verified by documents proving its compliance with the relevant requirements during the period of last one year at the date of application.
2. 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.
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 undated standards referred in the criteria, the latest revised edition applies at the date of application.
5. With respect to the verification methods in accordance with the test methods specified in criteria, it makes rules to do the followings:
  - 5.1 Test reports in accordance with the specified test methods refer to the test reports by accredited national testing laboratory or inspection body, or by accredited overseas testing laboratory or inspection body in accordance with ISO/IEC 17011. However, in case that the test reports are issued by unaccredited testing laboratory or laboratory of the applicant company, the test shall be confirmed and verified by experts assigned by eco-label certification body while the test is conducted.
  - 5.2 "Submitted documents" refer to the test report, list of supplied/manufactured materials, product guidebook, user's manual or the product submitted by the applicant for eco-label to prove his compliance with the relevant requirements.
6. Verification result submitted by eco-labeling program in other country, which signed mutual recognition agreement (MRA) with eco-label certification body, is regarded as verification result by eco-label certification body.