

[Appendix 1]

Standard for the Quality·Structure and Recyclability of Packing Materials

Basic principles

- A. Prescribes matters necessary for producers obligated to recycle to determine the quality · structure and recyclability of packing materials in order to facilitate the recycling of packing materials.
- B. Sets the quality·structure and recyclability standards by classifying the components (such as body, label, stopper and other components) of packing materials based on their function · shape by material and analyzing the impact of each component on recycling.
- C. Performs the rating of the following items based on the quality · structure of packing materials prior to affixing labels or certificates of inspection prescribed in the following subparagraphs if additional affixing is inevitable after completing product packaging.
 1. Labels affixed for the purpose of Korean labelling in accordance with Act on Labeling and Advertising of Foods, Cosmetics Act and Liquor Tax Act (, which is applicable only to imported products · packing materials).
 2. Certificates of inspection affixed in accordance with Ginseng Industry Act and Livestock Industry Act.

Definition of Terms

- A. The term “Non-separable” means cases where it is difficult for consumers to separate labels, stoppers and other components without using a tool.
- B. The term “Composite materials” mean materials in which two or more composite materials or synthetic resin and other

components are compounded; in the case of paper materials, it is applicable only when synthetic resin is attached to both sides.

- C. The term “Lamination” refers to a method to join all area or part of two or more types of film or support for the purpose of reinforcing, improving and adding a new function to supports. two or more types of film or support
- D. The term “Coating” refers to a method to apply paint or coating material to the surface of an object by means of calendering · extruding · dipping · spraying · painting in order to protect one or both sides of metal, textile and paper from air · water · chemicals.

Evaluation standard

- A. Classified into “quality · structure that can be easily recycled (best/excellent for recycling)” , “quality · structure with limited recycling capability (normal for recycling)” and “quality · structure that are difficult to recycle (difficult for recycling)” in accordance with the detailed standards for quality · structure by packing material.
- B. The grade of “quality · structure that can be easily recycled” in A is given to cases that meet all criteria for “quality · structure with limited recycling capability” and do not fall under any criteria for “quality · structures that are difficult to recycle.
- C. The grade of “quality · structure that are difficult to recycle” in A is given to cases that fall under any criteria for “quality · structure that are difficult to recycle” .
- D. “Cases that do not fall under the criteria for quality · structure

that can be easily recycled” or “quality · structure that are difficult to recycle” are classified as “quality · structure with limited recycling capability” .

E. In the case of PSP and PET bottles, the grade of best for recycling is given to cases that meet all criteria for excellent and best for recycling.

※ E.g.1) The grade of “best for recycling” is given to PET bottles with body, stopper and other components falling under “excellent for recycling” and labels falling under “best for recycling” .

※ E.g.2) The grade of “normal for recycling” is given to PET bottles with body falling under “normal for recycling” and labels with excellent grade.

Quality·structure that can be easily recycled	Quality·structure with limited recycling capability (Normal for recycling)	Quality·structure that difficult to recycle (Difficult for recycling)
Best/excellent for recycling		

□ Details of the standard for quality · structure by packing material

1. Paper packing materials

Classification	Quality · structure that can be easily recycled	Quality · structure that are difficult to recycle
Body	<ul style="list-style-type: none"> Paper packing materials in which aluminum lamination structure is not used. 	<ul style="list-style-type: none"> Paper packing materials in which aluminum lamination structure is used. Use of unbleached pulp (products using pulp packaging in color other than white)
Stopper and other components	<ul style="list-style-type: none"> Non-use 	<ul style="list-style-type: none"> Synthetic resin stoppers or molded structures that cannot be separated from the body¹⁾

1) Packing materials with PE stoppers and other components accounting for less than 10% of the total weight (including the body and the separable stopper) are classified as 'normal for recycling' .

2. Glass bottle packing materials

Classification	Quality · structure that can be easily recycled	Quality · structure that are difficult to recycle
Body	<ul style="list-style-type: none"> • Colorless, brown and green 	<ul style="list-style-type: none"> • Products in a color other than colorless, brown and green¹⁾ • Surface coating (except hot coating, cold coating and plastic coating) on the body or painting
Label	<ul style="list-style-type: none"> • If it falls under any of following; <ul style="list-style-type: none"> – Non-use – Paper materials – Non-adhesive synthetic resin materials including cut lines 	<ul style="list-style-type: none"> • Synthetic resin materials in which adhesive is used and that cannot be separated from the body. • Direct printing on the body (except the label of shelf life and production date). • Mixed metal material
Stopper & other components	<ul style="list-style-type: none"> • An integrated cap-frame structure or stoppers and other components that can be separated from the body 	<ul style="list-style-type: none"> • Metal stoppers overlaid with synthetic resin • Structures where cap-frame can be separated. • Stoppers and other components that cannot be separated from the body.

1) Products in color other than general green or brown such as dark green close to black.

3. Metal can packing materials (steel cans)

Classification	Quality · structure that can be easily recycled	Quality · structure that are difficult to recycle
Body	<ul style="list-style-type: none"> • Steel cans 	
Label	<ul style="list-style-type: none"> • Direct printing on the body 	
Stopper and other components	<ul style="list-style-type: none"> • Same material as the body or aluminum material 	

4. Metal can packing materials (aluminum cans)

Classification	Quality · structure that can be easily recycled	Quality · structure that are difficult to recycle
Body	<ul style="list-style-type: none"> • Aluminum cans 	<ul style="list-style-type: none"> • Structure of a composite material other than aluminum
Label	<ul style="list-style-type: none"> • Directly printed on the body 	<ul style="list-style-type: none"> • A material that is different from the body and cannot be separated from the body
Stopper and other components	<ul style="list-style-type: none"> • Same material as the body 	<ul style="list-style-type: none"> • A material that is different from the body and cannot be separated from the body

5. Single · composite expanded synthetic resin¹⁾ packing materials

Classification	quality · structure that can be easily recycled	quality · structure that are difficult to recycle
Body	<ul style="list-style-type: none"> • White single materials 	<ul style="list-style-type: none"> • Composite material structures (including the composite with other components), which cannot be separated from the body. • Colors other than white; black EPE and EPP materials belong to the normal grade)
Label, stopper and other components	<ul style="list-style-type: none"> • If it falls under any of following; <ul style="list-style-type: none"> – Non-use – Same material as the body 	<ul style="list-style-type: none"> • Directly printed on the body²⁾ • Materials different and inseparable from the body • PVC-type materials

1) Expanded synthetic resins refer to single · composite EPS, EPP and EPE resins and single · composite expanded synthetic resin buffer materials.

2) Packing materials with partial printing (labels containing essential matters) belong to the grade of ‘excellent for recycling’

6. Polystyrene paper (PSP)

Classification	Quality · structure that can be easily recycled	Quality · structure that are difficult to recycle
Body	<ul style="list-style-type: none"> • White single materials 	<ul style="list-style-type: none"> • Structures of composite materials (including the combination with other components), which are inseparable from the body • Colors other than white
Label, stopper and other components	<ul style="list-style-type: none"> • Cases that can be separated from the body <ul style="list-style-type: none"> Best: non-use or the same material as the body Excellent: materials different and separable from the body 	<ul style="list-style-type: none"> • Directly printed on the body¹⁾ • Materials different and inseparable from the body • PVC-type materials

1) Packing materials with partial printing (labels containing essential matters) belong to

the grade of 'excellent for recycling'

7. PET bottle packing materials

Classification	Quality · structure that can be easily recycled	Quality · structure that are difficult to recycle
Body	<ul style="list-style-type: none"> Colorless single materials 	<ul style="list-style-type: none"> Materials containing a glycol-modified PET resin (PET-G) Single material PET bottles in a color other than green, which contain materials other than drinking spring water and beverage Colored materials for bottles containing drinking spring water· beverage Composite materials
Label	<ul style="list-style-type: none"> Structures that can be easily separated by customers¹⁾ Synthetic resin materials with specific gravity less than 1 <p>Best: Non-adhesive or equivalent labels²⁾</p> <p>Excellent: The use of separable thermal alkaline adhesive³⁾ during recycling process. However, the area·quantity needs to be minimized when applying an adhesive⁴⁾.</p>	<ul style="list-style-type: none"> Synthetic resin materials without a structure that allows consumers to easily separate and with a specific gravity of 1 or more⁵⁾. The use of an adhesive that does not allow thermal alkaline separation Directly printed on the body (except expiration date and production date labels) PVC-type materials, materials other than synthetic resin and mixed metal materials
Stopper and other components	<ul style="list-style-type: none"> Synthetic resins with a specific gravity less than 1 or colorless single PET material <p>※ Recommended to use colorless single PET materials for handles.</p>	<ul style="list-style-type: none"> Synthetic resin with a specific gravity of 1 or more other than colorless single PET materials PVC-type materials Materials other than synthetic resins except other components with completely separable caps and body⁶⁾

1) Cut lines or edges to which adhesive is not applied, except in cases where it would

be technically impossible to apply the PE stretch labels, etc.

- 2) Packing materials where a thermal alkaline adhesive is applied to an area less than 0.5% of the total label area.
- 3) A thermal alkaline adhesive refers to adhesives that are reacted to sodium hydroxide (2%) and separated at a certain temperature (80°C) during a recycling process.
- 4) Cases where the area of label to which a thermal alkaline separation adhesive is applied is less than 20% of the entire area of a PET bottle (the surface area except the cap) or 60% of the label area.
- 5) Packing materials with cut lines fall under the category of ‘normal for recycling’ .
- 6) Other components with a specific gravity less than 1, containing a material other than synthetic resin, falls under the category of ‘normal for recycling’ .

8. Single synthetic resin container and tray-type packing materials (except PET bottles and expanded synthetic resins)

Classification	Quality · structure that can be easily recycled		Quality · structure that are difficult to recycle	
Body	<ul style="list-style-type: none"> Single materials (applicable only to colorless in the case of PET materials) 		<ul style="list-style-type: none"> PET-G mixed material is contained. Colored PET materials PVC-type materials 	
Label, stopper and other components	Body with a PET material	<ul style="list-style-type: none"> If it falls under any of the following. <ul style="list-style-type: none"> - Non-use - Non-adhesive ※ Adhesive or direct printing¹⁾ is not recommended. 	Body with a PET material	<ul style="list-style-type: none"> PVC-type materials
	Body with a material other than PET	<ul style="list-style-type: none"> If it falls under any of the following. <ul style="list-style-type: none"> - Non-use - Direct printing on the body - Same material as the body²⁾ - A synthetic resin material different and completely separable from the body³⁾ 	Body with a material other than PET	<ul style="list-style-type: none"> PVC-type materials When straw is attached while using leads or caps containing materials other than synthetic resin. Materials different and inseparable from the body⁴⁾

- 1) Packing materials with an adhesive or direct printing fall under the category of ‘normal for recycling’ .
- 2) When packing materials used for body is PE or PP while label, stopper and other component containing olefin-based (PE, PP, etc.) material that is different from the body, is considered as the same material; e.g. a packing material with PP body and PP+PP label falls under the category of excellent.
- 3) “Complete separation from the body” refers to packing materials that label, stopper and other components can be completely separated from the body. It is recommended to insert an instruction to encourage separate discharge.
- 4) Packing materials that cannot be separated to meet the safety standards for child

protection packaging under the Act on the Safety Management of Biochemicals and Biocides fall under the category of 'normal for recycling' .

9. Composite material containers · trays and single · composite material film · sheet packing materials (except PET bottles and expanded synthetic resins)

Classification	Quality · structure that can be easily recycled	Quality · structure that are difficult to recycle
Body	<ul style="list-style-type: none"> • Composite material containers · trays or synthetic resin film · sheet (including those containing 20μm or less of aluminum) 	<ul style="list-style-type: none"> • Use in combination with a material other than synthetic resin¹⁾ • PVC-type materials
Label, stopper and other components	<ul style="list-style-type: none"> • If it falls under any of the following. <ul style="list-style-type: none"> – Non-use – Synthetic resin materials – Direct printing on the body 	<ul style="list-style-type: none"> • PVC-type materials • Materials other than synthetic resin and inseparable from the body.

1) It does not include materials in which 20 μ m or less of aluminum material is used.