

Voluntary Design Guidelines for Designated PET Bottles

Revised on September 27, 2024

The Council for PET Bottle Recycling (JAPAN)

History of Revision

Date of revision	Revision details and explanations
October, 1992	“Voluntary Design Guidelines” for soft drinks and soy sauce were established separately under guidance of the Ministries of International Trade and Industry, of Agriculture and Forestry, and of Finance.
April, 1995	The guidelines were revised and retitled “Voluntary Design Guidelines for Type II Designated PET Bottles,” integrating soft drinks, soy sauce and alcoholic beverages.
April, 1997	The “Law for Promotion of Sorted Collection and Recycling of Containers and Packaging” (the “Container and Package Recycling Law”) came into effect.
February, 1998	The “Guidelines” were revised when the “Law” came into effect, and were organized into “Basic Standards” and “Exceptions.” They prohibited the use of aluminum closures and recommended the use of plastic closures (PE/PP) instead.
April, 2001	The “Guidelines” were revised and retitled “Voluntary Design Guidelines for Designated PET Bottles” to enable independent judgment using evaluation criteria. Guidance was introduced to use clear bottle bodies, to prohibit direct printing on the bottles, and to change to labels that leave no residual adhesive.
March, 2011	Mainly label-related guidelines were revised.
May, 2015	Current material evaluation criteria were detailed in Appendix 1-1, and evaluation criteria for bottle-to-bottle (BtoB) mechanical recycling were added as Appendix 1-2.
March, 2016	Appendix 1-2 was integrated with Appendix 1-1 and changed to Appendix 1. The overall text of the “Guidelines” was rearranged.
January, 2018	<ol style="list-style-type: none"> 1. A reference dimension of recycled pellets was added in the fiber evaluation test of the material evaluation criteria. 2. “Name of the PET resin material used for comparison” was added to the information to be included in a report.
March, 2023	<ol style="list-style-type: none"> 1. A description regarding the handling of auxiliaries and additives of concern for recycling PET resin was added to the material test for bottles (Appendix 1). 2. Procedures and conditions for preparing test samples of the material test for bottles (Appendix 1) were enhanced.
September, 2024	The fiber evaluation test of Appendix 1 were revised

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Appendix 2: Evaluation Criteria for Labels (including Printing, Adhesives
and other Components)

1. Introduction --- Objectives

These “Voluntary Design Guidelines for Designated PET Bottles” (“Guidelines”), issued by The Council for PET Bottle Recycling (the “Council”), prescribe the requirements for bottles, labels (including printing and adhesives), closures and other components of PET bottles used for designated products (soft drinks, milk-based beverages, alcoholic beverages and specified seasonings) under provisions of the Law for Promotion of Effective Utilization of Resources (“designated PET bottles”), so as to ensure containers are hygienic and otherwise have high suitability for recycling when reprocessed after use. The Council has repeatedly revised these “Guidelines,” in line with technological improvements and environmental change, to promote development of PET bottles that contribute to the 3 Rs of Reduce, Reuse, and Recycle.

2. Composition and Scope of Application

These “Guidelines” consist of this main document and two appendixes: “Appendix 1. Material Evaluation Criteria for Bottles” and “Appendix 2. Evaluation Criteria for Labels (including Printing, Adhesives and other Components)”.

The “Guidelines” apply to PET bottle bodies and associated packaging of designated PET bottles for soft drinks, milk-based beverages, alcoholic beverages and specified seasonings sold in Japan, regardless of whether produced domestically or imported.

3. Basic Standards

Bodies and associated packaging of designated PET bottles must comply with the Basic Standards shown in Table 1. Where compliance with the Basic Standards is unclear, they must be evaluated in line with the material evaluation criteria shown in these “Guidelines” because of their anticipated impact on reprocessing and recycling.

4. Operation Rules

Not only members (organizations and companies) of the Council, but non-members as well, must follow these “Guidelines” when they produce, import or sell soft drinks, alcoholic beverages or specified seasonings packaged in designated PET bottles, or when they produce or import designated PET bottles and associated packaging for sale or consumption in Japan.

Bottles that do not comply with required items in the Basic Standards may be used as exceptions if they are judged to comply when tested in accordance with the material evaluation criteria for bottles in Appendix 1 or for labels in Appendix 2. In these cases, a report certified by the Council as compliant with the Guidelines is

necessary before the bottles are marketed.

When bottles are judged to be in compliance with the Basic Standards and are used, the grounds for compliance must be readily available for disclosure upon request of the Council or the general community.

PET bottle recycling technologies have advanced significantly over recent years. Furthermore, bottle-to-bottle (BtoB) recycling has markedly increased. Taking this into account, the Basic Standards and Material Evaluation Criteria in these "Guidelines" are revised in line with improvements in reprocessing technologies, changes in recycling technologies and changes in the environment.

The "Voluntary Design Guidelines for Designated PET Bottles" is also available on the Council's Website at <https://www.petbottle-rec.gr.jp/english/design.html>.

Table 1: Basic Standards

Components			Basic Standards (☆ Required items; * Recommended items)	Remarks
Bottle	Body	Material	☆PET only	PET only: - No material other than PET used by blending, multilayering, etc. - Ensure safety and hygiene and not impact on the recycling process
		Color	☆Not colored	
		Structure	* Easily compressible	
	Other	Handle	☆Made of colorless PET or PE/PP with a specific gravity less than 1.0 * PE/PP handles with a specific gravity less than 1.0 are recommended to be replaced with colorless PET	
		Printing	☆No direct printing on bottles	Excluding small printing of Best Before dates, production plant & lot, and other codes
Label	(Including printing, adhesives and promotional labels, etc.)	Materials and separation	☆Not contain PVC ☆Material and its thickness enable separation by specific gravity, pneumatic and washing processes during recycling ☆Inks do not transfer to PET bottles ☆Not use aluminum foil laminated labels * Not use aluminum-metalized labels	
		Detachment and separation	*Shrink sleeves with perforations *For labels that are glued onto bottles, such as roll-on, sheet and tacky labels, adhesive usage and the area covered with the adhesive are recommended to be minimized for easily peeling off by hand, and leave no fragment or adhesive on the bottle surface when detached	

Closure	Material	☆Not use aluminum closures ☆Not contain PVC ☆Made mainly of PE/PP with a specific gravity less than 1.0 ☆Where glass beads and gaskets are used, instructions for detaching them from the bottle after consumption are included on the label	Applicable to shells, inner seals and liner materials
Other	Price tags and other glued attachments (Requests for distributors and retailers)	* Where adhesives, glue or adhesive tapes are used to attach price tags, proof-of-purchase tapes and promotional labels, etc. at distributors or retailers, those are recommended to be attached to closures or labels. Where they are attached to the bottle bodies, they are easily detachable by hand, and leave no fragment or adhesive on the bottle surface when detached.	

PVC: Polyvinyl chloride, PE: Polyethylene, PP: Polypropylene

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