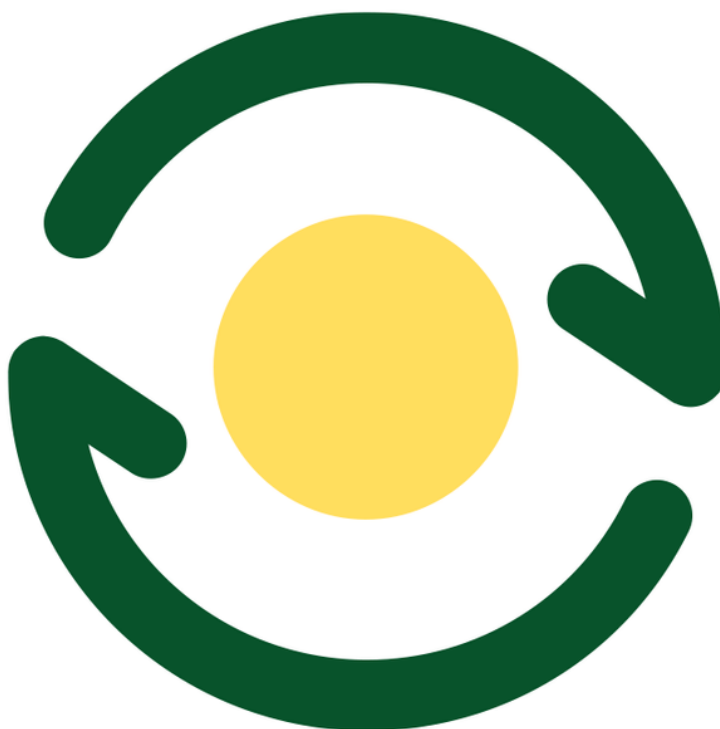


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**COLLECT  
RETURN  
SUSTAIN**



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# **GUIDELINES FOR PACKAGING OF PRODUCTS WITHIN THE DEPOSIT SYSTEM**

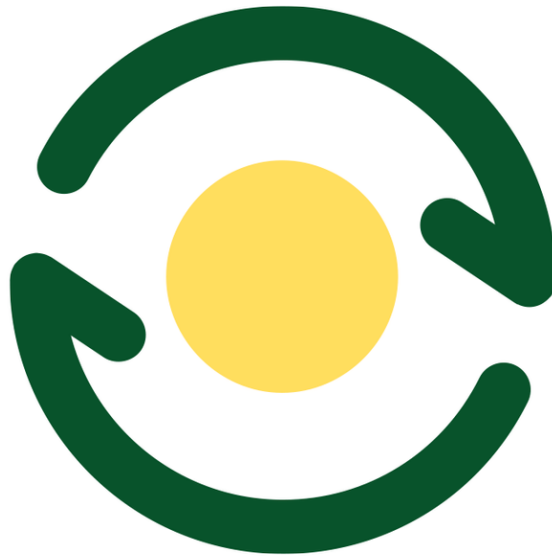
This document provides a comprehensive set of guidelines for beverage producers. It covers the specifications for packaging, EAN codes, deposit system markings, and the process for registering new packaging within the deposit system.

## Document version

Version	Opis zmian	Date
1.0	initial version of the document	31.10.2024
1.1	graphic changes to the document	8.11.2024
1.2	Correction of mistake changing width with height and clarification	19.11.2024

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## 1. Purpose of the Document

The following document is designed to compile and clarify the requirements and recommendations regarding the specifications of packaging entering the deposit system.

Understanding and adhering to the requirements is crucial for the effective inclusion of products into the system and their proper identification.

Adhering to the recommendations is not mandatory. However, ignoring them may lead to operational issues such as incorrect recognition of packaging by reverse vending machines (RVMs) or reduced quality of the recycled material.

## 2. EAN Code

For effective operation within the deposit system, it is crucial that each package carries a product code that adheres to GSI standards, is scannable, and is properly registered in the Deposit System Registry.



A correct code ensures that the product is rightfully recognized as a part of the deposit system, thus entitling the consumer to a refund when the packaging is returned to a collection point.

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### 2.1. EAN Code – Requirements

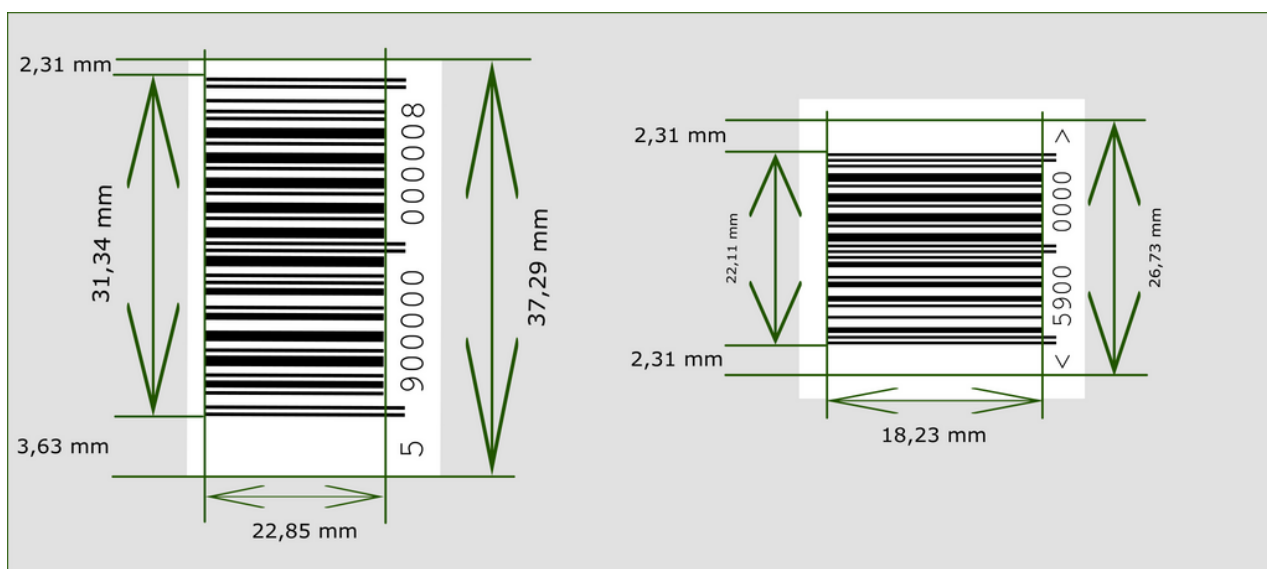
**Code Types:** Accepted codes include: EAN-13, EAN-8, UPC-A, and UPC-E, compliant with the SR ISO/IEC 15420 norm. These are industry standards that ensure unambiguous product identification within the deposit system.

- **Compliance with GSI Standard:** All codes must adhere to the GSI General Specifications outlined in document [GSI General Specifications Standard](#) Release 24.0, Ratified in January 2024. This document encompasses codes:
  - ◦ Sizes
  - ◦ Colors
  - ◦ Contrasts
  - ◦ Proportions
  - ◦ Quiet zones
  - ◦ Print quality.

The rules warrant that the codes will be unambiguously legible to scanning systems.

- **Size:** The dimensions of EAN codes are strictly regulated by the aforementioned GS1 guidelines:

- EAN-13:
  - Nominal size: 37.29 mm x 22.85 mm
  - Nominal size 29.83 mm x 18.28 mm
- EAN-8:
  - Nominal size: 26.73 mm x 18.23 mm
  - Minimal size: 21.38 mm x 14.58 mm



- **Scaling range:** The code must be printed at a scale ranging from 80% to 115% of its nominal size (100% to 115% for horizontal codes) to ensure optimal readability without the risk of scanning errors.

Dimensions of EAN-13 and EAN-8 barcodes depending on the scale factor

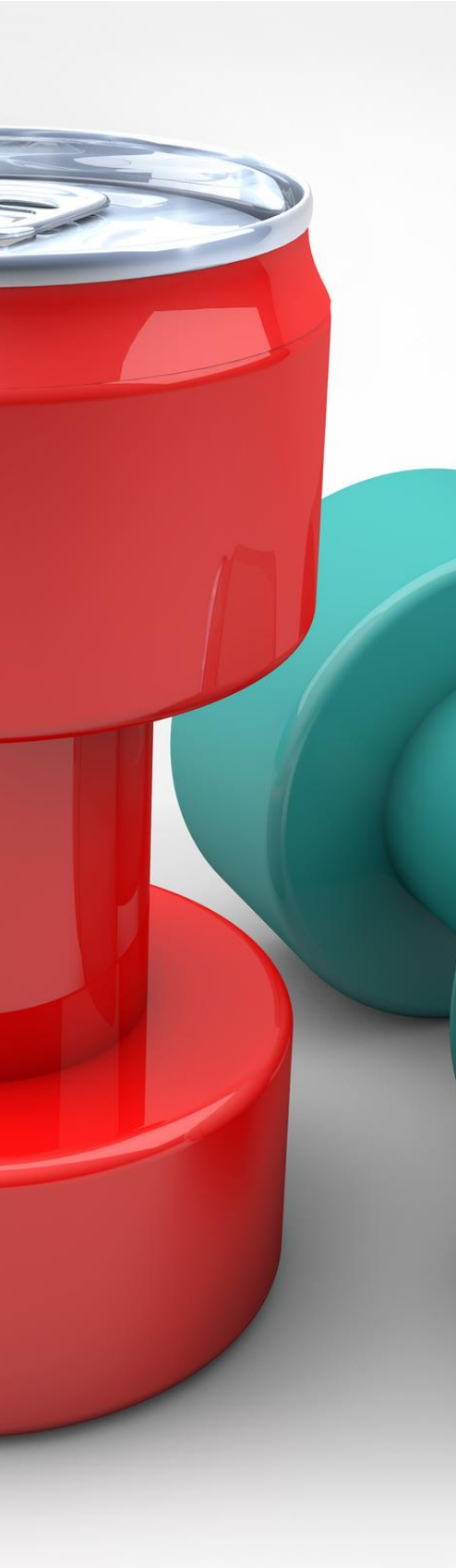
Scale factor	Ideal Module Width [mm]	EAN-13 / UPC-A Dimensions [mm]		EAN-8 Dimensions	
		Width	Height	Width	Height
0.80	0.264	29.83	20.73	21.38	17.05
0.85	0.281	31.70	22.02	22.72	18.11
0.90	0.297	33.56	23.32	24.06	19.18
0.95	0.313	35.43	24.61	25.39	20.24
1.00	0.330	37.29	25.91	26.73	21.31
1.05	0.346	39.15	27.21	28.07	22.38
1.10	0.363	41.02	28.50	29.40	23.44
1.15	0.379	42.88	29.80	30.74	24.51

Permissible scale ratio of reduction/enlargement and precise dimensions of EAN-13 codes

Scale (ratio) of reduction/enlargement	Ideal width of the element (mm)	White area on the left side (mm)	White area on the right side (mm)	TOTAL width, including the white areas (mm)	Width from the first line of the code to the last (mm)	Width from the first line of the code to the last (mm)	Height of the lines, excluding numbers (mm)	Height of the lines down to the bottom of the longest line (mm)	Placement
80%	0.264	2.904	1.848	29.83	25.08	20.73	18.28	19.600	Vertically
85%	0.281	3.091	1.967	31.70	26.64	22.02	19.42	20.825	Vertically
90%	0.297	3.267	2.079	33.56	28.21	23.32	20.57	22.050	Vertically
95%	0.313	3.443	2.191	35.43	29.80	24.61	21.71	23.275	Vertically
100%	0.330	3.630	2.310	37.29	31.35	25.93	22.85	24.500	Vertically/ Horizontally
105%	0.346	3.806	2.422	39.15	32.92	27.21	23.99	25.725	Vertically/ Horizontally
110%	0.363	3.993	2.541	41.02	34.49	28.50	25.14	26.950	Vertically/ Horizontally
115%	0.379	4.169	2.653	42.88	36.06	29.80	26.28	28.175	Vertically/ Horizontally

Permissible scale ratio of reduction/enlargement and precise dimensions of EAN-8 codes

Scale (ratio) of reduction/enlargement	Ideal width of the element (mm)	White area on the left side (mm)	White area on the right side (mm)	TOTAL width, including the white areas (mm)	Width from the first line of the code to the last (mm)	Height including numbers (mm)	Height of the lines, excluding numbers (mm)	Height of the lines down to the bottom of the longest line (mm)	Placement
80%	0.264	1.848	1.848	21.380	17.680	17.050	14.688	15.904	Vertically
85%	0.281	1.967	1.967	22.720	18.790	18.110	15.606	16.898	Vertically
90%	0.297	2.079	2.079	24.060	19.900	19.180	16.524	17.892	Vertically
95%	0.313	2.191	2.191	25.390	21.010	20.240	17.442	18.886	Vertically
100%	0.330	2.310	2.310	26.730	22.120	21.310	18.360	19.880	Vertically/ Horizontally
105%	0.346	2.422	2.422	28.070	23.230	22.380	19.278	20.874	Vertically/ Horizontally
110%	0.363	2.541	2.541	29.400	24.320	23.440	20.196	21.868	Vertically/ Horizontally
115%	0.379	2.653	2.653	30.740	25.430	24.510	21.114	22.862	Vertically/ Horizontally



## 2.1. EAN Code – Requirements

**Placement:** Primary considerations for barcode placement are outlined in **Chapter 6** of the [GS1 General Specifications Standard](#). In addition to those specifications, barcodes should not be positioned on packaging areas that are prone to damage during normal usage, such as caps or easily removable labels. This ensures the barcode remains durable and accessible throughout the life of the packaging. It is also critical to avoid placing two different barcodes on the same package.

**Unique codes:** Each product entering the deposit system must have a new, unique EAN code. This code must not have been used previously nor currently be in use for another product version, not covered by the deposit system. This ensures that the system accurately recognizes the packaging as part of the current deposit system, eliminating the risk of incorrect refund of deposits for packaging that has not previously been charged.

[Link: GS1 General Specifications Standard](#)



## 2.1.1. Change of EAN/GTIN Code

If a producer does not intend to change the EAN/GTIN code despite making modifications to the product’s packaging, consultation with the Deposit System Operator is required if any of the following conditions is met:

- The type of material used for packaging is changed (excluding changes between rPET and PET)
- Any dimension of the packaging changes by more than 20%
- The weight of the packaging increases by more than 20%, which could affect logistics and distribution processes.

## 2.2. EAN Code – Recommendations

To ensure efficient processing of packaging by Reverse Vending Machines (RVMs), it is recommended to adhere to the following guidelines for EAN code placement:

<b>PLACEMENT</b>	<p>EAN code should be placed:</p> <ul style="list-style-type: none"> <li>• Vertically (in the ladder orientation), which significantly aids RVMs in accurately scanning the code</li> <li>• On as flat, moisture-resistant surface as possible, to maintain the integrity of the code</li> <li>• At least 10 mm away from the edges of the packaging, to prevent scanning errors.</li> </ul>
<b>COLOR SCHEME</b>	<p>To enhance readability, it is recommended to use highly contrasting colors for the barcode. Black bars on a white background are ideal as they provide the best possible contrast for optical recognition.</p>
<b>BARCODE TILT</b>	<p>The tilt of the barcode relative to the horizontal surface should not exceed 30 degrees when the packaging is laid flat. This alignment facilitates accurate barcode reading by reverse vending machines.</p>
<b>MAGNIFICATION</b>	<p>For codes placed on surfaces that are challenging to scan, such as the neck of a bottle, it is recommended to enlarge the barcode to at least 100% of its nominal size in accordance with GSI standards. This ensures the barcode remains legible during the scanning process.</p>

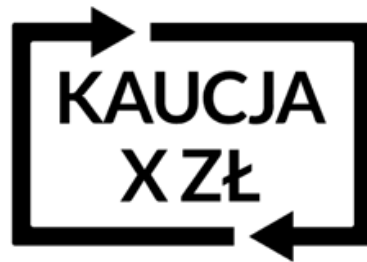
<b>LABEL MATERIAL</b>	The label should be made from a durable material that resists deformations such as wrinkling, which could impair barcode readability.
<b>EAN/GTIN CODE:</b>	For the sake of efficient operation of the deposit system in Poland, each product must be marked with a unique EAN/GTIN code exclusively assigned for use within this system.
<b>UPDATING CODES FOR COLLECTIVE PACKAGING</b>	For operational and reporting purposes, it is advisable to assign new EAN codes to all sales units that are subject to a deposit requirement.

### 3. Deposit System Logo

While the deposit system logo is not utilized in the automated scanning processes done by Reverse Vending Machines or by handheld scanners, it does serve a vital function in visual communication with the users of the deposit system.

#### 3.1. Deposit System Logo – Requirements

In accordance with Article 40 of the [Act of 13 July 2023 amending the Act on Packaging and Packaging Waste Management and certain other acts](#), each package included in the system must be marked to indicate its inclusion in the deposit system and specify the amount of the deposit according to the following pattern:



Marking of Packaging Within the Deposit System

### In which:

**X,YY** - indicates the deposit value where X denotes full zlotys and YY denotes cents ( grosze),  
**X** - denotes the deposit value in whole zlotys.

### The marking must:

1. Be clear, visible, legible, and durable;
2. Contrast with the background;
3. Be placed on the label.

Upon the implementation of the deposit system, the deposit will be set at 0.50 PLN for PET bottles and cans, and 1 PLN for glass bottles. The marking should reflect these amounts accordingly.

The vector version of the deposit system logo, which reflects the deposit amounts valid on the day the deposit system launches (0.50 PLN for PET and cans, and 1 PLN for glass bottles), is to be found on the Ministry of Climate and Environment's website, MKiOŚ: <https://www.gov.pl/web/klimat/oznakowanie-opakowan-w-systemie-kaucyjnym>.

[LINK: Labeling of packaging in the deposit system \(GOV\)](#)

## 3.2. Deposit System Logo – Recommendations

The deposit system logo placed on packaging is meant to effectively and clearly inform consumers about the product's inclusion in the deposit system. This mark does not serve for identification by automatic systems such as Reverse Vending Machines (RVMs) or manual scanners, but aids consumers in quickly recognizing product packaging that is part of the deposit system.

To ensure the readability of the deposit logo, its dimensions should be greater than, or exceed, 8 mm in height and 10 mm in width, while maintaining a 5:4 aspect ratio.

It is recommended that the deposit mark be placed near the EAN code, optimally directly above it, so that their widths align both in terms of print area and margins. The recommendations also cover a quiet zone around the logo, which should be no less than twice the height of the arrowhead, ensuring the logo's better visibility and readability by effectively separating it from other graphical elements on the package's label. Implementation of this recommendation should not result in the sign being reduced below the above minimum dimensions.



Size of the protective field for the minimum sized marking for the deposit system

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On packaging that carries markings for several deposit systems, intended for distribution in multilingual and multi-market settings, including Poland, the Polish deposit system logo must be displayed alongside those of other systems.

Any deviation from the above guidelines may lead solely to the risk of misidentification of the package by consumers as not being part of the deposit system. In cases where standard guidelines do not fulfill their function for a specific product, i.e., they do not ensure clear and easy identification by consumers, the recommendation is to adopt a more effective marking method tailored to the specific needs of the package.

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### 3.2.1. Font in the Deposit System Logo

Current legal regulations do not specify the minimum font size for the text included in the deposit system logo. However, to ensure clarity of critical information on the mark, such as the deposit amount, it is recommended to use a font height of no less than 2 mm and proportional width. The goal is to aid consumers in identifying and understanding the information.

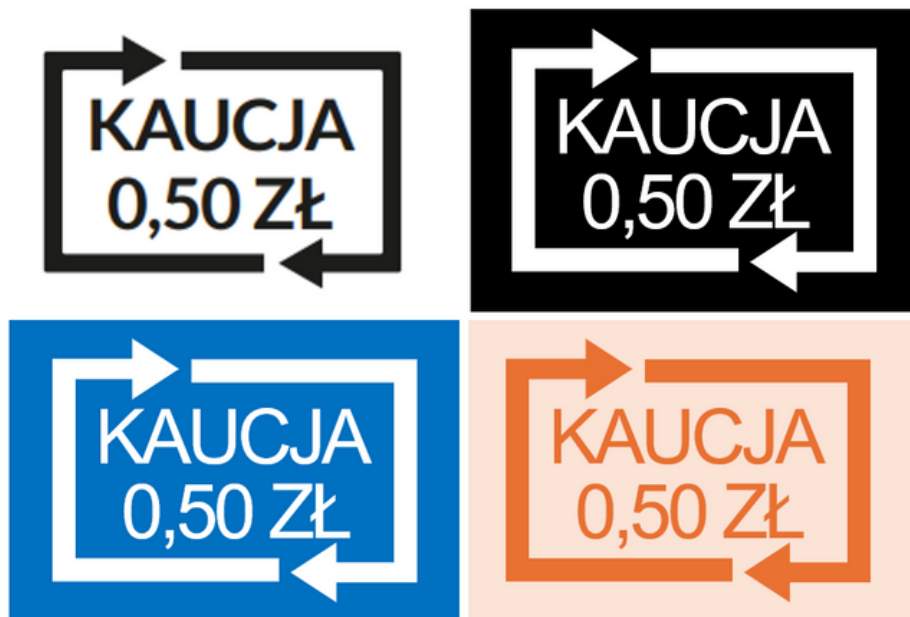
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### 3.2.2. Color Scheme of the Deposit System Logo

Annex No. 2 [to the Act of July 13, 2023](#), amending the Act on Packaging and Packaging Waste Management and other acts, specifies that the deposit system logo should "contrast with the background". Given the recommended placement of the logo near the EAN code, a color scheme that utilizes the barcode's colors is suggested.

In exceptional cases, the color scheme of the deposit system logo can be adjusted to match the color of text presenting sensitive information, such as the product composition or allergen indications, provided that the graphic design remains compliant with statutory background contrast requirements.

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Examples of Acceptable Color Schemes

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### 3.2.3. Placement on Colored Backgrounds

In exceptional cases where the deposit system symbol is placed on colored backgrounds, it is recommended to use a uniform background color to prevent illegibility caused by additional framing or overly complex background patterns. The mark should always be clear and easily recognizable. This is achievable by maintaining proper contrast with the background and avoiding unnecessary frames that could obscure the deposit system mark or key deposit information.

Using additional colors for the background of the logo is permissible, provided they comply with contrast principles.

In certain cases, the use of self-adhesive stickers with the deposit system logo is allowed as a temporary solution, especially when direct printing on the packaging is not feasible.

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Such stickers may be placed on various types of packaging, including imported ones, but they must not obscure essential markings such as the EAN code, product name, ingredient information, allergens, alcohol content, or volume. Each sticker must be resistant to external factors and ensure clear, visible, and durable labeling of the deposit system.

To minimize the negative impact on the recyclability of packaging, it is recommended to minimize the weight of the stickers used. Thus, the weight of the stickers should not exceed 5% of the packaging weight.

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## 4. Shape of Beverage Containers

### 4.1. Shape of Beverage Containers – Requirements

Per the [Regulation of the Minister of Climate and Environment dated July 8, 2024](#), the following types of beverage containers are included in the deposit system:

- Single-use plastic bottles up to 3 liters in capacity
- Multi-use glass bottles up to 1.5 liters
- Metal (aluminum and steel) cans up to 1 liter capacity.

Although the Polish deposit system regulations do not explicitly mandate it, the edges of packaging must be designed with safety in mind, as to mitigate risks during manual handling and when processed by sorting and reverse vending machines. This design requirement not only prevents injuries but also facilitates efficient recycling operations.

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### 4.2. Shape of Beverage Containers – Recommendations

To effectively handle packaging within reverse vending machine (RVM) systems, adherence to specified packaging dimension parameters is recommended.

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**Diameter of Containers** (measured at the widest external point of the packaging):

<b>for plastic containers</b>	from 50 to 130 millimeters
<b>for metal cans</b>	from 50 to 100 millimeters
<b>for reusable glass bottles</b>	from 50 to 130 millimeters

**Height of Containers** (including the cap):

<b>for plastic containers</b>	from 80 to 360 millimeters
<b>for metal cans</b>	from 80 to 200 millimeters
<b>for reusable glass bottles</b>	from 80 to 360 millimeters

To ensure stability during the return process, **the dimensions of the packaging should maintain a height-to-width ratio of at least 1.4**. This ratio aids in the stability of the containers within the reverse vending machines.

It is also recommended that the edges of the packaging be rounded to allow for smooth rotation during barcode scanning operations.

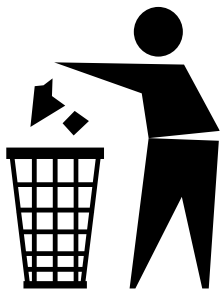
Additionally, the center of gravity of the packaging should be positioned to allow the package to rest stably in a horizontal position on a flat surface, thereby reducing the risk of it tipping over or lifting unintentionally.



## 5. Packaging Label Adjustments Upon Deposit System Entry – Recommendations

Upon joining the deposit system, manufacturers are advised to implement changes to their packaging labeling, including:

### Removal of the "Tidyman" Symbol



Manufacturers are advised to remove this symbol from packaging to avoid misleading consumers. The "Tidyman" mark, which suggests disposing of packaging in the trash, can be confusing in the context of the deposit system that promotes the return of containers to collection points.

### Removal of the "GREEN DOT" Symbol



As the "GREEN DOT" symbol indicates a manufacturer's participation in a recovery and recycling system, its presence on packaging labeled with the deposit system mark is not necessary.

However, it should be emphasized that the decision to remove both marks, as well as the application of other packaging-related labeling, remains at the discretion of the manufacturer, who may adjust the markings according to their needs.

In Poland, voluntary labeling is regulated by the Minister of Environment Regulation on Packaging Labeling Patterns dated September 3, 2014 (Dz.U. 2014 Poz. 1298).

## 6. Packaging Materials

When selecting materials for beverage containers, manufacturers must consider both technical and environmental criteria. Packaging should be made from materials that are not only durable and safe for daily use but also easy to process after their life cycle. Recommended materials include the following.



### 6.1. aluminum and steel

System obsługuje zarówno puszki wykonane z czystego aluminium lub stali, jak i puszki wykonane z kombinacji tych metali (np. z stalowymi korpusami i aluminium nakrywkami). Puszki zawierające 'widelce' – małe naczynia ciśnieniowe (np. azot, dwutlenek węgla) – są dopuszczalne, ale zaleca się wcześniejszą konsultację z Operatorem Kaucyjnym ze względu na potencjalne komplikacje techniczne.



### 6.2. PET (Polyethylene Terephthalate)

PET bottles, both clear and colored, are accepted by the system. The [EU Directive 2019/904](#) on reducing the impact of certain plastic products mandates that by 2025, PET beverage bottles must contain at least 25% recycled material, and by 2030, this requirement will increase to 30%.



### 6.3. HDPE (High-Density Polyethylene)

HDPE bottles, whether clear or colored, are accepted by the deposit system.



### 6.4. Glass

Only reusable glass bottles are accepted by the deposit system.



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