



## **National Standard of the People's Republic of China**

GB 18455-2001

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### **Packaging Recycling Marks**

**[Unofficial English Reference Translation]**

AeA China RoHS Steering Committee

Prepared for R. Ferris and H. Zhang

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## Foreword

This standard has been formulated in accordance with the needs and requirements for the recycling, reuse, and regeneration of packaging for utilization. Mark graphics are consistent with marks in common use internationally. To the extent possible, this enables China's packaging mark requirements to be equivalent with international requirements for the purpose of adapting as quickly as possible to the requirements of international trade and technological and economic exchanges.

The various requirements stipulated in this standard involve requirements for packaging mark graphics, sizes, and methods of use. These requirements are used to ensure the uniformity of packaging marks.

Appendix A and Appendix B to this standard are both instructive appendices.

This standard was proposed by the China National Packaging Corporation.

This standard is under the jurisdiction of the National Packaging Standardization and Technology Commission.

Units that drafted this standard: China National Export Commodities Packaging Research Institute, Guangdong Exit-Entry Inspection and Quarantine Bureau, and the Ministry of Chemical Industry Standardization Research Institute.

Primary authors of this standard: Li Jianhua, Yu Qunli, Wang Xianyun, Zhong Bangqi, Huang Xue and Wang Xiaobing.

This is the first publication of this standard.

The China National Export Commodities Packaging Research Institute has been entrusted to be responsible for interpreting this standard.

## Packaging Recycling Marks

[English]

## 1. Scope

This standard stipulates the types, names, sizes and colors of marks for recyclable, reusable packaging and packaging that is renewable for utilization.

This standard applies to all types of recyclable, reusable packaging materials and packaging materials that can be regenerated for utilization (excluding hazardous materials).

## 2. Cited standards

By citation herein, the provisions contained in the standards listed below constitute provisions of this standard. At the time of publication hereof, all of the versions shown were valid. All standards are likely to be amended. All parties using this standard should investigate the possibility of using the latest versions of the standards listed below.

GB/T 16716-1996 General Rules for the Handling and Utilization of Packaging Refuse

## 3. Definitions

The definitions listed below are used in this standard.

All definitions listed in GB/T 16716 apply to this standard.




Green point mark [English]

Environmental protection mark for green packaging for which the packaging producer has paid packaging processing fee.

## 4. Mark graphics, names and material quality codes


4.1 See Table 1 for the four types of mark graphics and their names.

Table 1 Recycling Marks

| Mark Number | Mark Name                    | Mark Graphic   | Scope of Application of Mark      |
|-------------|------------------------------|--|-----------------------------------|
| 1           | Reusable                     |  | Applies to all types of packaging |
| 2           | Recyclable/renewable         |  |                                   |
| 3           | Contains renewable materials |  |                                   |

GB 18455-2001

Table 1 (Continued)

| Mark Number | Mark Name        | Mark Graphic   | Scope of Application of Mark      |
|-------------|------------------|--|-----------------------------------|
| 4           | Green point mark |  | Applies to all types of packaging |

4.2 See Table 2 for the codes for packaging of various types of materials in their corresponding mark graphics.

Table 2 Packaging Material Codes

| Type                              | Name                | Codes                        |      |
|-----------------------------------|---------------------|------------------------------|------|
| I                                 | Plastic             | High density polyethylene    | HDPE |
|                                   |                     | Low density polyethylene     | LDPE |
|                                   |                     | Polyvinyl chloride           | PVC  |
|                                   |                     | Polyester                    | PET  |
|                                   |                     | Polypropylene                | PP   |
|                                   |                     | Polystyrene                  | PS   |
| II                                | Paper               | Paper                        | WPP  |
|                                   |                     | Paperboard                   | PB   |
|                                   |                     | Corrugated cardboard         | CB   |
|                                   |                     | Corrugated fiberboard        | FB   |
|                                   |                     | Non-corrugated fiberboard    | NCFB |
| III                               | Metal               | Steel                        | FE   |
|                                   |                     | Aluminum                     | ALU  |
| IV                                | Composite Materials | Plastic/aluminum             | 11   |
|                                   |                     | Plastic/tin                  | 12   |
|                                   |                     | Plastic/mixed metals         | 13   |
|                                   |                     | Plastic/glass                | 14   |
|                                   |                     | Glass/aluminum               | 21   |
|                                   |                     | Glass/tin                    | 22   |
|                                   |                     | Glass/mixed metals           | 23   |
|                                   |                     | Paper or fiberboard/plastic  | 31   |
|                                   |                     | Paper or fiberboard/aluminum | 32   |
|                                   |                     | Paper or fiberboard/tin      | 33   |
| Paper or fiberboard/mixed metals  | 34                  |                              |      |
| Paper or fiberboard/plastic/metal | 41                  |                              |      |
| V                                 | Glass               | Colorless                    | GL1  |
|                                   |                     | Brown                        | GL2  |
|                                   |                     | Green                        | GL3  |
| VI                                | Wood                | Natural wood                 | NW   |

5. Mark Sizes and Colors

5.1 Mark Sizes

5.1.1 There are generally four different mark sizes; see Table 3.

Table 3 Mark Sizes

| Number | Length | Width |
|--------|--------|-------|
| 1      | 20     | 20    |
| 2      | 40     | 40    |
| 3      | 60     | 60    |
| 4      | 80     | 80    |

mm

Note: If especially large or especially small packaged items are encountered, mark sizes may be appropriately enlarged or reduced in accordance with the requirements in Table 3.


5.1.2 Selection and use of mark sizes must be in proportion to the size of the packaging piece.

5.2 Mark Colors

5.2.1 Mark colors should be printed monochromatically; generally, green printing is used. If the color used for the packaging piece makes the green graphic mark appear unclear, other suitable contrasting colors may be used also.

5.2.2 See Table 4 for reference color sample.

Table 4 Reference Color Sample

|   |   |
|---|---|
| Green   |  |
| Note: The shade of green is bright green, GSB G51001-94 G 03. |   |

6. Positioning and Number of Marks

6.1 Positioning of Marks

Marks should be positioned in places easily visible to consumers; they must not conceal the packaged products.

6.2 Number of Marks

Each packaging piece is generally to be labeled with only one mark.

7. Method of Using Marks

7.1 Recycling marks should be selected and used correctly in accordance with the packaging material.

7.2 Labeling of marks may be accomplished by printing, affixing of adhesive labels or spray application.

7.3 Marks should be clear, and it must be ensured that they do not come off within the recyclable life.

7.4 See Appendix A for the method for packaging recycling marks to be used for plastic packaging materials and containers.

7.5 See Appendix B for non-recyclable/reusable packaging.

**Appendix A**  
**(Instructive Appendix)**

**Packaging Recycling Marks Used for Plastic Packaging Materials and Containers Example**

- A1. The “Recyclable/Renewable” mark should be used for plastic packaging materials and containers.  
A2. On plastic containers and packaging pieces with volumes in excess of 100ml, the recycling symbol for the type of plastic must be indicated in an accessible and external manner, printed or carved on said plastic packaging material.



04—Plastic Number

LDPE—Type of Plastic

- A3. Mark size: Must be in proportion to the size of the packaging. For example, on a sales package with a size of 500mm x 500mm x 500mm, the printed diameter should be no less than 20mm, produced on two opposite visible surfaces of the packaging.  
A4. Mark color: Printed marks on packaging are to be monochromatic. For packaging printed in various colors, the positive-negative principle is to be applied based on the color printed as the base color. For example, on white or clear objects, black may be used.  
A5. Mark positioning: The position of the mark on packaging must be clearly visible to consumers, and must not conceal the packaged products.  
A6. Plastic mark codes  
PET-01, HDPE-02, PVC-03, LDPE-04, PP-05, PS-06.

**Appendix B**  
**(Instructive Appendix)**

**Non-recyclable/Reusable Packaging**

- B1. The internal packaging of hazardous goods must not be recycled or reused.  
Hazardous goods include: Explosives, flammable liquids, corrosives, oxidants and organic peroxides, radioactive articles, poisons, infectious articles, self-igniting articles and articles which are flammable upon contact with moisture.  
B2. Single-use packaging for medical supplies must not be reused, and may only be used to regenerate materials.
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