



National Environmental Protection Standards of
the People's Republic of China

HJ 209-2017

Replace HJ/T 209-2005

Technical requirement for environmental labeling products

Plastic packaging products

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This document is a translation of a Chinese original. In case of dispute, the original document should be taken as authoritative.

Foreword

This standard is formulated for the purposes of implementing the Environment Protection Law of the People's Republic of China, effectively utilizing and saving resources and reducing adverse impacts of plastic packaging products on the environment and human health.

This standard identifies environmental protection requirements for raw materials, production process, product degradation performance, biochar content, printing and labeling of plastic packaging products.

This standard revises the Technical Requirement for Environmental Labeling Products — Packaging Products (HJ/T 209—2005) with main changes as the followings:

- adjust the standard name and scope of application;
- add requirements for raw materials and production processes;
- adjust the degradation indicator of the product;
- delete the requirement for easy recycling;
- add the requirement for content of biological base material in undegradable products;
- add the requirements for the contents of heavy metals, polybrominated biphenyls, polybrominated diphenyl ethers and solvent residue in the products;
- add requirements for vinyl chloride and styrene monomers in the product;
- adjust the requirements for product labeling.

The development of this standard is under the organization the Department of Science, Technology and Standards of the Ministry of Environmental Protection.

The main organizations drafting this standard are the Environmental Development Center of the Ministry of Environmental Protection, Plastic Packaging Products Committee of China Packaging Federation, Beijing Green Business Culture Development Center, Wuhan Huali Environmental Technology Co., Ltd., Shanxi Kelong Plastic Products Co., Ltd., Shandong Shouguang Jianyuanchun Co., Ltd., Jiangsu Shuangxing Color Plastics New Materials Co., Ltd., Guangdong Province Chaozhou Institute of Quality Measurement Supervision & Inspection.

This standard was approved by the Ministry of Environmental Protection on December 11, 2017.

This standard takes effect as of March 1, 2018.

This standard shall be interpreted by the Ministry of Environmental Protection.

The previous versions replaced by this standard are HJ/T 209-2005 and HJBZ 12-2000.

Technical requirement for environmental labeling products

Plastic Packaging Products

1 Applicable Scope

This standard stipulates the terms and definitions, basic requirements, technical contents and test methods for plastic packaging environmental labeling products.

This standard is applicable to packaging products with plastics as main materials.

2 Normative References

The contents of this standard quote the provisions of the following documents. The valid version of any quoted document with a marked date shall be applicable to this standard.

GB 9681	Hygienic Standard of Products of Polyvinyl Chloride for Food Packaging
GB 9692	Hygienic Standard for Polystyrene Resin Used as Food Packaging Material
GB/T 4122.1	Packaging Terms—Part 1: Basic
GB/T 10004	Plastic Laminated and Pouches for Packaging—Dry Lamination and Extrusion Lamination
GB/T 16288	Marking of Plastic Products
GB/T 20197	Requirements for Definition, Classification, Labeling and Degradability of Degradable Plastics
GB/T 21928	Determination of Phthalate in Food Plastic Packaging Materials
GB/T29649	Determination of Biobased Content of Biobased Materials — Liquid Scintillation Counters Method
HJ 2539	Technical Requirement for Environmental Labeling Products — Printing— Part III: Gravure Printing

3 Terms and Definitions

The terms and definitions specified in GB/T 4122.1-2008 and the following shall apply to this standard.

3.1 Plastic packaging products

They refer to the packaging products mainly made of plastic materials.

[GB/T 4122.1-2008, Definition 5.6]

4 Basic Requirements

- 4.1 The product shall meet the requirements of related quality, safety and sanitation standards.
- 4.2 Pollutant emissions of product manufacturers shall meet national or local emission standards.
- 4.3 Product manufacturers shall strengthen clean production in the process of production.

5 Technical Contents

5.1 Requirements for raw materials and production process

- 5.1.1 Undegradable plastic packaging shall not use thermosetting plastic and foaming plastic as raw materials.
- 5.1.2 Azo dyes that can be decomposed into carcinogenic aromatic amines listed in Annex A shall not be used in product production process.
- 5.1.3 Phthalate plasticizers listed in GB/T 21928 shall not be added to food packaging.
- 5.1.4 Phthalate plasticizers listed in Annex B shall not be added to non-food packaging.
- 5.1.5 Product gravure printing process shall meet the requirements of HJ 2539.

5.2 Product requirements

- 5.2.1 The content of lead, cadmium, mercury, hexavalent chromium and their compounds, polybrominated biphenyl, polybrominated diphenyl ether and solvent residues in products shall meet the requirements of GB/T 10004.
- 5.2.2 The content of vinyl chloride monomer in polyvinyl chloride (PVC) products shall meet the requirements of GB 9681, and the content of styrene monomer in polystyrene products shall meet the requirements of GB 9692.
- 5.2.3 Degradable plastic packaging shall meet the degradation requirements specified in GB/T 20197.
- 5.2.4 The biochar content shall be more than 20% in undegradable plastic packaging.

5.3 Product labeling shall meet the requirements of GB/T 16288.

6 Test Methods

- 6.1 The test of Technical Content 5.2.1 shall be conducted based on the methods specified in GB/T 10004.
- 6.2 The test of vinyl chloride monomer in Technical Content 5.2.2 shall be conducted based on the methods specified in GB 9681, test of styrene monomer following the methods specified in GB 9692.
- 6.3 The test of Technical Content 5.2.3 shall be conducted based on the methods specified in GB/T 20197.

6.4 The test of biochar content in Technical Content 5.2.4 shall be conducted based on the methods specified in GB/T 29649-2013.

6.5 Other requirements in Technical Contents shall be verified by document review combined with site inspection.

Annex A
(Normative Annex)
Carcinogenic Aromatic Amines

Chinese Name	English Name
4-氨基联苯	4-Aminobiphenyl
联苯胺	Benzidine
4-氯-邻甲苯胺	4-Chloro-o-toluidine
2-萘胺	2-Naphthylamine
邻氨基偶氮甲苯	o-Aminoazotoluene
2-氨基-4-硝基甲苯	2-Amino-4-nitrotoluene
对氯苯胺	P-Chloroaniline
2,4-二氨基苯甲醚	2,4-Diaminoanisole
4,4'-二氨基二苯甲烷	4,4'-Diaminobiphenylmethane
3,3'-二氯联苯胺	3,3'-Dichlorobenzidine
3,3'-二甲氧基联苯胺	3,3'-Dimethoxybenzidine
3,3'-二甲基联苯胺	3,3'-Dimethylbenzidine
3,3'-二甲基-4,4'-二氨基二苯甲烷	3,3'-Dimethyl-4,4'-diaminobiphenylmethane
2-甲氧基-5-甲基苯胺	p-Cresidine/ (p-Kresidine)
3,3'-二氯-4,4'-二氨基二苯甲烷	4,4'-methylene-bis- (2-chloroaniline)
4,4'-二氨基联苯醚	4,4'-Oxydianiline
4,4'-二氨基二苯硫醚	4,4'-Thiodianiline
邻甲基苯胺	o-Toluidine
2,4-二氨基甲苯	2,4-Toluylendiamine
2,4,5-三甲基苯胺	2,4,5-Trimethylaniline
邻甲基苯甲醚/2-甲氧基苯胺	o-Anisidine/2-Methoxyanilin
2,4-二甲基苯胺	2,4-Xylidine
2,6-二甲基苯胺	2,6-Xylidine
4-氨基偶氮苯	4-Aminoazobenzene

Annex B
(Normative Annex)
Phthalates

Chinese Name	English Name	Abbreviation
邻苯二甲酸二异壬酯	Di-iso-nonylphthalate	DINP
邻苯二甲酸二正辛酯	Di-n-octylphthalate	DNOP
邻苯二甲酸二(2-乙基)己酯	Di-(2-ethylhexy)-phthalate	DEHP
邻苯二甲酸二异癸酯	Di-isodecylphthalate	DIDP
邻苯二甲酸丁基苄基酯	Butylbenzylphthalate	BBP
邻苯二甲酸二丁酯	Dibutylphthalate	DBP