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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 46908-2025

**Packaging - Transport packaging for dangerous goods -
Plastics compatibility testing for packaging and IBCs**

包装 危险货物运输包装 塑料包装和塑料中型散装容器（IBCs）的相容性试验
(English Translation)

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Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative References	
3 Terms and Definitions	
4 Test Requirements	
4.1 General Rules	
4.2 Selection and preparation of plastic packaging/plastic IBCs	
4.3 Additional information required regarding similarity	
4.4 State Adjustment	
4.5 Drop Test	
4.6 Stacking Test	
4.7 Hydraulic Test	
4.8 Airtightness Test	
4.9 Bottom Lifting Test	
4.10 Top Lift Test	
4.11 Vibration Test	
4.12 Permeability Test	
4.13 Equivalent Test	
5 Test Equipment	
6 Test Report	
Appendix A (Informative) Comparison of this document's structural numbering with ISO 13274:2013	
Appendix B (Informative) Technical Differences Between This Document and ISO 13274:2013 and Their Reasons	
Appendix C (Informative) Suitability of Standard Liquids for Polyethylene Materials	
Appendix D (Normative) Small-scale tests for evaluating contents based on standard liquids	
References	

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document modifies and adopts ISO 13274:2013 "Packaging - Packaging for transport of dangerous goods - Plastic compatibility with packaging and medium bulk containers".

test".

This document has undergone significant structural adjustments compared to ISO 13274:2013. A table comparing the structural numbering changes between the two documents is provided.

See Appendix A.

This document differs significantly from ISO 13274:2013. The relevant clauses are indicated in vertical margins.

Single lines (|) are indicated. A summary of these technical differences and their causes can be found in Appendix B.

The following editorial changes have been made to this document.

---To harmonize with existing standards, the standard name has been changed to "Packaging for the Transport of Dangerous Goods. Plastic Packaging and Medium Bulk Packaging Containers".

Compatibility testing of inter-branch compatibility devices (IBCs);

---Includes technical errata from ISO 13274:2013/Cor1.2014; the relevant clauses are indicated in the outer margin margins using...

The vertical double lines (||) are marked;

---Note 4.1 in ISO 13274:2013 has been removed;

---Note 8.2 in ISO 13274:2013 has been amended;

---The phrase "a method" has been removed from Method A of B.1 in ISO 13274:2013.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Packaging Standardization Technical Committee (SAC/TC49).

Introduction

The materials used in plastic packaging and plastic intermediate bulk containers (IBCs) may crack due to environmental stress caused by the chemicals they contain.

Erosion occurs through mechanisms such as ESC (electrochemical corrosion), chemical degradation, and swelling. The UN Recommendations on the Transport of Dangerous Goods and related regulations require that such containers...

Compatibility assessments are conducted for the contents of containers, with specific regulations requiring liquid containers to be tested at room temperature for six months. International highways...

The European Agreement on the Transport of Dangerous Goods (ADR) and the International Railway Regulations for the Transport of Dangerous Goods (RID) allow the use of standard liquids specified in the documents as substitutes for actual substances.

The similarity between the contents of plastic packaging and plastic intermediate bulk containers (IBCs) and the standard liquid is determined by a set of criteria.

Then, refer to the roadmap for confirming the similarity between the contents of the RID/ADR and the standard liquid. The contents determined to be similar to the standard liquid are...

See the RID/ADR similarity list for the list.

This document aims to provide information on compliance with the European Agreement on the International Transport of Dangerous Goods by Road (ADR) and the International Railway Regulations for the Transport of Dangerous Goods (RID).

The International Civil Aviation Organization Technical Guidelines for the Safe Transport of Dangerous Goods (ICAO Tis) and the International Maritime Dangerous Goods Code (IMDG Code) are global guidelines.

Plastic packaging and plastic medium bulk packaging for containing liquids, as required by the DG Code and the United Nations (UN) Recommendations on the Transport of Dangerous Goods.

Compatibility requirements and testing procedures for inter-container containers (IBCs).

Packaging for dangerous goods transport, plastic packaging and Compatibility testing of plastic intermediate bulk containers (IBCs) Warning. Use of this document may involve hazardous substances and equipment. This document does not guarantee to address all issues related to standard applications.

Safety issues. It is the responsibility of users of this document to establish appropriate safety and health practices and to confirm the applicability of regulatory restrictions before

use.

1 Scope

This document specifies the compatibility testing requirements for plastic packaging and plastic intermediate bulk containers (hereinafter referred to as "plastic packaging/plastic IBCs").

Requirements, testing equipment, and test reports.

This document applies to compatibility testing of plastic packaging for liquids and medium-sized plastic bulk containers.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 1040.2 Determination of tensile properties of plastics - Part 2: Test conditions for molded and extruded plastics (GB/T 1040.2-2022, ISO 527-2:2012, MOD) GB/T 1632.3 Plastics - Determination of Viscosity of Dilute Solutions of Polymers Using Capillary Viscometers - Part 3: Polyethylene and Polypropylene (GB/T 1632.3-2010, ISO 1628-3:2001, MOD) GB/T 1842 Environmental stress cracking test method for polyethylene (GB/T 1842-2008, ASTM D1693:2008) MOD) GB/T 1845.2-2021 Plastics - Polyethylene (PE) Molding and Extrusion Materials - Part 2: Specimen Preparation and Determination of Properties (ISO 17855-2:2016), MOD) Note. There are no technical differences between the content referenced in GB/T 1845.2-2021 and the content referenced in ISO 17855-2:2016.

GB/T 2918 Standard environment for conditioning and testing of plastic specimens (GB/T 2918-2018, ISO 291:2008, MOD) GB/T 3682.1 Determination of melt mass flow rate (MFR) and melt volumetric flow rate (MVR) of thermoplastics Part 1: Standard Methods (GB/T 3682.1-2018, ISO 1133-1:2011, MOD) GB/T 21461.2-2023 Plastics - Ultra-high molecular weight polyethylene (PE-UHMW) molding and extrusion materials - Part 2: Samples Preparation and performance determination (ISO 21304-2:2021, MOD)

1) ISO 1872-2:2007 is obsolete and has been replaced by ISO 17855-2:2016.

2) ISO 11542-2:1998 is obsolete and has been replaced by ISO 21304-2:2021.

Note: There are no technical differences between the content referenced in GB/T 21461.2-2023 and the content referenced in ISO 11542-2:2021.