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

GB/T 43133.2-2024

**Transport packaging - Reusable plastic distribution boxes - Part
2: General specifications for testing**

运输包装 可重复使用的塑料周转箱 第2部分：试验通用规范

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

This document is Part 2 of GB/T 43133 "Reusable plastic turnover boxes for transport packaging". GB/T 43133 has been published.

The following sections.

Part 1: General requirements;-Part 2: General specifications for testing. -this document is modified to adopt ISO 18616-2:2016 "Transport packaging Reusable rigid plastic turnover boxes Part 2: Test General Specifications.

Compared with ISO 18616-2:2016, this document has many structural adjustments.

See Appendix A for the table.

The technical differences between this document and ISO 18616-2:2016 and their reasons are as follows.

The applicable limit in the scope (see Chapter 1) has been changed to apply to general-purpose plastic boxes and not to the use of special-purpose plastic boxes.

Bank regulations;

Added normative references to GB/T 4122.1, GB/T 4122.4 and GB/T 4122.5 (see Chapter 3), deleted the normative the normative reference of ISO 21067 (see ISO 18616-2:2016 Chapter 3) has been replaced by the normative reference of GB/T 43133.1.

ISO 18616-1 (see Chapter 3), replaces ISO 3394 (see 4.2.2) with the normative reference GB/T 4892, GB/T 4857.1 replaces ISO 2206 (see 5.1.4) and GB/T 4857.2 replaces ISO 2206 (see 5.1.4) ISO 2233 (see 5.2) replaces ISO 2248 (see 6.3.1), replace ISO 2234 (see 6.4.2) with 5.2.2 and Chapter 8 of GB/T 4857.3-2008 as the normative reference.

Adapt to my country's national conditions and improve operability;

Change "Plastic boxes should not show visible changes or damage, such as cracks or dents. There should be no deformation that reduces the function of the box" to the plastic box should be free of deformation or damage that reduces the function of the box, such as cracks or dents" (see 4.3) to clarify the shape of the plastic box.

Stability requirements to improve operability;

Changed the record requirements for plastic boxes in the test (see 5.1.2) to increase operability;

The calculation formula of the test load and the requirement that "the safety factor should be 1.5 during arbitration inspection" (see 5.3.1) have been added to provide High applicability;

Added appearance test method (see 6.1) to improve operability;

Add the test method of size and mass, and change the result calculation from "average value" of the sample to "separate calculation" of each sample (see 6.2) to improve operability and meet my country's technical conditions;

Added description of the test process of the bottom deflection test and the accuracy

requirements of related equipment (see 6.5.2) to improve operability.

The following editorial changes have been made to this document.

The name of the standard is changed to "Transport packaging Reusable plastic turnover boxes Part 2: General test specifications";

Change the heading of the clause "Dimensions" to "Dimensions and mass" (see 4.2);-the section title (see 5.3.2) has been changed to be consistent with the test name;-the section title (see 5.3.3) has been changed to be consistent with the test name;-Added indexing instructions and changed figure titles (see Figures 1 and 3);

Added quotations for listed items (see 6.3.2, 6.3.3); -Changed the article title (see 6.4);-Added the statement "the third time is 10% of the test load" [see 6.4.1c)]. -

Introduction

In recent years, my country's industry, electronics, logistics and other industries have developed rapidly, and large, medium and small enterprises are pursuing environmental protection, energy saving and high efficiency development.

This development trend has promoted the rapid rise of the reusable plastic turnover box industry.

Reusable plastic turnover boxes are an important part of the packaging system in the supply chain, and their standardization can help improve the recyclable packaging system.

Standardized reusable packaging operating systems promote supply chain automation and improve inventory control efficiency.

The global standardization of returnable transportation systems can help companies more easily integrate supply chains from suppliers to customers.

interface.

GB/T 43133 "Reusable Plastic Turnover Boxes for Transport Packaging" is divided into two parts.

Part 1: General requirements, the purpose is to define the four main types of plastic turnover boxes, specify their basic requirements, safety, General requirements such as labeling;

Part 2: General test specifications, which aims to specify the performance requirements and test methods for the operation and use of reusable plastic turnover boxes.

Test method.

The formulation of this document lays the foundation for reusable plastic boxes in my country's logistics supply chain. Its promotion and application will establish a standard for

my country.

It provides important technical support for standardized recyclable transportation systems.

Reusable plastic transport packaging Part 2: General test specifications

1 Scope

This document specifies the performance requirements, pre-test requirements and test procedures for reusable plastic turnover boxes (hereinafter referred to as "plastic boxes").

Law.

This document is applicable to the modular dimensions of 600 mm x 400 mm, 600 mm x 500 mm, 550 mm x 366 mm and their derived dimensions plastic box.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the latest version (including all amendments) applies to this document.

In this document.

GB/T 4122.1 Packaging terms Part 1: Basics GB/T 4122.4 Packaging terms Part 4: Materials and containers GB/T 4122.5 Packaging terms Part 5: Inspection and testing GB/T 4857.1 Basic tests for packaging and transport packages Part 1: Methods for marking various parts during testing (GB/T 4857.1-2019, ISO 2206:1987, MOD) GB/T 4857.2 Basic tests for packaging and transport packages Part 2: Temperature and humidity conditioning (GB/T 4857.2-2005, ISO 2233:2000, MOD) GB/T 4857.3-2008 Packaging and transport packages Basic tests Part 3: Static load stacking test method (ISO 2234:2000, IDT) GB/T 4857.5-1992 Drop test method for transport packages (ISO 2248:1985, EQV) GB/T 4892 Dimensional series for rigid rectangular transport packaging (GB/T 4892-2021, ISO 3394:2012, MOD) GB/T 43133.1 Transport packaging Reusable plastic turnover boxes Part 1: General requirements (GB/T 43133.1-2023, ISO 18616.1:2016, MOD)

3 Terms and Definitions

The terms and definitions defined in GB/T 4122.1, GB/T 4122.4, GB/T 4122.5 and GB/T 43133.1 apply to this document.