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

GB/T 17344-2025

Replacing GB/T 17344-1998

Packaging - Packing containers - Air-tight test method

包装 包装容器 气密试验方法

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Foreword

This document was drafted in accordance with the rules provided in GB/T 1.1-2020 Directives for Standardization - Part 1: Rules for the Structure and Drafting of Standardizing Documents.

This document serves as a replacement for GB/T 17344-1998 Packaging - Packing Containers - Air-tight Test Method. In comparison with GB/T 17344-1998, apart from structural adjustments and editorial modifications, the main technical changes are as follows.

- The volume limitation is deleted, and the applicable limits are modified (see Chapter 1; Chapter 1 of Version 1998);
- The name of the test method is added to the test principle (see Chapter 4);
- The range of gas source pressure is modified (see 5.1; 4.1 of Version 1998);
- The requirement for the division value of the pressure gauge in the test equipment is deleted, and the measuring range requirement and accuracy class of the pressure gauge are modified (see 5.2; 4.2 of Version 1998);
- The U-shaped tube is deleted from the test equipment (see 4.3 of Version 1998);
- The requirement for the water tank is added to the test equipment (see 5.3);
- The test materials are added (see 5.4);
- The preparation of test sample is deleted (see 5.1 of Version 1998);
- The selection of test intensity values is deleted (see 5.4 of Version 1998);

- The test pressure values are added (see 6.3);
- The requirement for air inlet settings is modified (see 6.4.1; 5.5.1 of Version 1998);
- The installation procedures are modified (see 6.4.2; 5.5.2 of Version 1998);
- The handling mode for containers with air exhausting devices is added (see 6.4.3);
- The container inspection procedures are modified (see 6.4.5; 5.5.4 of Version 1998);
- The contents that shall be included in the test report are modified (see Chapter 7; Chapter 7 of Version 1998).

Please be noted that certain content of this document may involve patents. The issuing institution of this document does not undertake the responsibility of identifying these patents.

This document was proposed by and shall be under the jurisdiction of National Technical Committee 49 on Packaging of Standardization Administration of China (SAC/TC 49).

Packaging - Packing Containers - Air-tight Test Method

1 Scope

This document describes the test principle and procedures for air-tight test of packing containers, and specifies the test equipment, materials, and test report.

This document applies to the test of the airtightness of transport packing containers.

2 Normative References

GB/T 4857.2

3 Terms and Definitions

This document does not have terms or definitions that need to be defined.

4 Test Principle

Inflate the test sample with air to a pre-determined pressure; then immerse it in water (immersion method) or apply a thin layer of a bubble-generating liquid (coating method). By checking for the presence or absence of bubbles, determine the sealing performance of the sample.

5 Test Equipment and Materials

5.1 A pressure source capable of providing compressed air at a pressure of not less than 100 kPa.

5.2 The pressure gauge shall have a measuring range of 0 kPa ~ 100 kPa and an accuracy of not less than Class 1.0.

5.3 A water tank capable of submerging the test location.

5.4 A container for the test liquid, a bubble-generating liquid, and a brushing tool.

6.1 Specimen Pre-treatment

In accordance with the provisions of GB/T 4857.2, select one condition for temperature and humidity pre-treatment of the test sample.

6.2 Test Conditions

The test shall be conducted under the same temperature and humidity conditions as the pre-treatment; if the same conditions cannot be achieved, the test shall begin within 5 minutes of the test sample being removed from the pre-treatment environment.

6.3 Test Pressure Value

The test pressure value shall meet the requirements of the airtightness test pressure value of the corresponding packaging container.

6.4 Test Procedures

6.4.1 As needed, place the air inlet on the side wall, top, or bottom of the container, where it has minimal impact on the specimen's sealing performance. Avoid placing it on the specimen sealing device, feed inlet, or air exhaust.

6.4.2 Properly connect the inflation tube, install the specimen sealing device and arbitrarily

place it without any external reinforcement.

6.4.3 For containers with an air exhausting device, block the exhaust port or replace it with an airtight device, and ensure that the connection is airtight.

6.4.4 Through the air inlet, inflate the specimen to the specified pressure.

7 Test Report

The test report shall include at least the following contents.

a) Name, quantity, specifications and size of the test samples;