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

GB/T 4546-2026

Replacing GB/T 4546-2008

Glass containers - Test methods of internal pressure resistance

玻璃容器 耐内压力试验方法

(English Translation)

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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 replaces GB/T 4546-2008 "Test Method for Internal Pressure Resistance of Glass Containers". Compared with GB/T 4546-2008, except for the following.

Aside from structural adjustments and editorial changes, the main technical changes are as follows.

---The term and definition of "internal pressure resistance" have been added (see Chapter 3);

---Added requirements for temperature measuring instruments and pressure head adjustment devices, sealing requirements, and electronic measuring devices in internal pressure measuring equipment (see...).

5.2.2.1, 5.2.2.2, 5.3.2.1, 5.3.2.2 (and 3.1.2 and 3.2.2 in the 2008 edition);

---The sample clamping location has been changed (see 5.2.2.2, 5.3.2.2, and 3.1.2 and 3.2.2 in the 2008 version);

---The requirements for destructive testing in constant rate testing have been changed (see 5.3.3.2, 3.2.3.2 in the 2008 version).

This document is modified to adopt ISO 7458:2004, "Glass containers, test method for internal pressure resistance".

The technical differences between this document and ISO 7458:2004, and the reasons

therefor, are as follows.

- a) The scope of application has been expanded (see Chapter 1) to adapt to my country's technical conditions and improve operability;
- (b) Terms and definitions defined in GB/T 9987 have been added (see Chapter 3) to adapt to my country's technical conditions and improve operability.

Actual nature;

- c) The term and definition of "internal pressure resistance" have been added (see 3.1), and the test subjects have been clarified;

d) Increased requirements for temperature measuring instruments and pressure head adjustment devices, sealing requirements, and electronic metering devices in internal pressure measuring equipment (see...).

(5.2.2.1, 5.2.2.2, 5.3.2.1, 5.3.2.2), to adapt to my country's technical conditions and improve operability;

- e) Temperature requirements for the test medium have been increased (see 5.2.3.1, 5.3.3.1) to adapt to my country's technical conditions and improve operability;

f) The requirements for the sample clamping location, safety devices, and destructive testing in constant-rate testing have been changed (see 5.2.2.2, 5.3.2.2).

5.3.3.2), to adapt to my country's technological conditions and improve operability;

- g) The content of the test report has been changed (see 5.2.4, 5.3.4) to adapt to my country's technical conditions and improve operability.

The following editorial changes have been made to this document.

---The standard title has been changed to "Test Method for Internal Pressure Resistance of Glass Containers";

---Added names for method A and method B (see 5.2, 5.3);

---Notes in sections 3.2.3.1 and 3.3.3.1 have been removed, and their content has been merged into sections 3.2.3.1 and 3.3.3.1;

---Note in 3.2.3.2b) has been deleted.

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 is under the jurisdiction of the National Technical Committee on Standardization of Daily-Use Glass (SAC/TC377).

1 Scope

This document describes the methods for constant pressure and constant rate tests to determine the internal pressure resistance of glass containers.

This document applies to the internal pressure resistance test of glass 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 9987 Terminology for the manufacture of glass bottles and jars

3 Terms and Definitions

The terms and definitions defined in GB/T 9987 and the following terms and definitions apply to this document.

The pressure that a glass container can withstand under internal hydraulic pressure.

4 Samples

The test should be conducted using the specified number of glass containers.

The glass container to be tested should not be subjected to any other mechanical and thermal property tests that would affect the results of its internal pressure test prior to the test.

5.1 Reagents

Tap water was used as the test medium.

5.2.1 Principle

Apply constant internal pressure for a specified time.

5.2.2.1 Temperature measuring instruments

The graduation value is no greater than 0.5°C.