

ICS 19.040

CCS N04



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

GB/T 10592-2023

Replacing GB/T 10592-2008

Specifications for high/low temperature testing chambers

高低温试验箱技术条件

Issued on: March 17, 2023

Implemented on: October 1, 2023

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
3 Safety and environmental protection requirements	6
2 Installation conditions	7
9 Steel tape measure	8
21 Safety and environmental protection inspection	32
4 Judgment rules	34
2 Instruction Manual	35
36 Reference	38

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: This document is one of the series of standards "Technical Conditions for Environmental Test Chambers", which consists of the following documents:

- GB/T 10586-2006 Technical conditions for damp heat test chamber;
- GB/T 10587-2006 Salt Spray Test Chamber Technical Conditions;
- GB/T 10588-2006 Technical conditions for mold growth test chamber;
- GB/T 10589-2008 Low temperature test chamber technical conditions;
- GB/T 10590-2006 High and low temperature/low pressure test chamber technical conditions;
- GB/T 10591-2006 High temperature/low pressure test chamber technical conditions;
- GB/T 11158-2008 High temperature test chamber technical conditions;
- GB/T 11159-2010 Technical conditions for low pressure test chambers: This document replaces GB/T 10592-2008 "Technical Conditions for High and Low Temperature Test Chambers": In addition to rectification and editorial changes, the main technical changes are as follows:
 - a) Added "temperature shock test" (see Chapter 1);
 - b) Deleted "actual temperature" (see 3:3 of the:2008 edition), "temperature gradient" (see

3:7 of the:2008 edition), "temperature of the working space The terms and definitions of "deviation" (see 3:9 of the:2008 edition), changed the definition of "temperature fluctuation" (see 3:8, :2008 edition 3:5), change "limit temperature" (see 3:10 of the:2008 edition) to "extreme temperature" (see 3:5), change "temperature change rate" (see 3:8) of the:2008 edition is divided into "average temperature change rate" (see 3:11) and "linear temperature change rate" (see 3:13), adding "Temperature deviation" (see 3:7), "temperature uniformity" (see 3:9), "temperature indication error" (see 3:10), "full average temperature change speed rate" (see 3:12), "full linear temperature change rate" (see 3:14), "heating and cooling time" (see 3:15), "temperature recovery time" (see 3:16), "temperature overshoot" (see 3:17), "temperature overshoot" (see 3:18), "temperature overshoot recovery time" (see 3:19), "temperature The terms and definitions of "degree change test profile" (see 3:20);

c) Changed "Table

1 Test Chamber Performance Items and Requirements" (see 4:1, Table 1 of the:2008 edition), and deleted "Temperature Gradient" (see:2008 No: 3 in Table 1 of the:2008 edition, "the difference between the temperature of the inner wall of the working room and the temperature of the working space" (see No: 5 in Table 1 of the:2008 edition), add "Temperature Deviation", "Temperature Uniformity", "Temperature Indication Error", "Full Average Temperature Change Rate", "Full Linear Temperature Change Rate" rate", "temperature rise and fall time", "temperature recovery time", "temperature overshoot amount", "temperature overshoot recovery time" and other items and requirements (see 4:

1 Table 1), increased the size of the test chamber (see 4:2:15), the requirements for the volume of the test chamber (see 4:2:16), added the electromagnetic compatibility Content (EMC) safety requirements (see 4:3:4) and refrigerant environmental protection requirements (see 4:3:8);

1 Scope

GB/T 10592-2023 is the Chinese national standard on specifications for high/low temperature testing chambers, in the field of testing. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 17 March 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 October 2023. Classification: ICS 19.040, CCS N04. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the technical requirements, conditions of use and installation, and main inspection instruments related to high and low temperature test chambers (hereinafter

referred to as "test chambers"): Devices and devices, inspection methods, inspection rules, signs, instructions for use, packaging, transportation, storage, etc: This document applies to high or low temperature tests for products, components, and materials in the process of research and development, production, and inspection, as well as high and low temperature tests: Test chamber for cycle test and temperature shock test: Similar temperature test chambers shall be implemented by reference:

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text: Among them, dated references For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document:

GB/T 191 Packaging, storage and transportation icon marks GB/T 3785:

3 Terms and Definitions

The following terms and definitions apply to this document: 3:1 A closed box or space, some of which can meet the specified high and low temperature test conditions: 3:

2 Test chamber volume testingchambervolume The actual volume of the space defined by the inner wall of the test chamber: [Source: GB/T 5170:1-2016, 3:2:1, modified]