

ICS 55.180.01
CCS A85



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

GB/T 18433-2023

Replacing GB/T 18433-2001

Air cargo insulated containers thermal efficiency requirements

航空货运保温集装箱热性能要求

Issued on: May 23, 2023

Implemented on: September 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
4 Technical requirements	1
8 Appendix C (Informative) Graphical Symbols of Insulated Containers	10

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 replaces GB/T 18433-2001 "Thermal Performance Requirements for Air Cargo Insulated Containers": Compared with GB/T 18433-2001, In addition to structural adjustments and editorial changes, the main technical changes are as follows:

- a) Added the terms and definitions of outline and bottom plate (see 3:2, 3:3);
- b) Change the design requirements to technical requirements (see Chapter 4, Chapter 3 of the:2001 edition);
- c) Added the basic requirements, outline and bottom plate, mooring inside the box, and technical requirements for overflow prevention (see 4:1, 4:2, 4:4, 4:7);
- d) Changed the use environment requirements (see 4:3, 3:2, 3:3 of the:2001 edition), material requirements (see 4:5, 3:6 of the:2001 edition), cleaning Requirements (see 4:6, 3:4, 3:5, 3:6 of the:2001 edition);
- e) Changed the technical requirements for pressure regulation (see 4:8, Chapter 4 of the:2001 edition);
- f) Added the requirements for the insulated container to determine the air leakage rate through tests (see 5:1:1);
- g) Change the test requirements for the temperature fluctuation range inside and outside the container (see 5:1:2, 5:2 of the:2001 edition);
- h) Delete the requirement to use the average temperature of the standard container wall to evaluate the insulated container (see 6:4:1 of the:2001 edition);
- i) Added the requirement that all insulated containers should be marked (see 6:1);
- j) Increased the requirements for the position of the signage (see 6:2);

k) Deleted the size and format requirements of the signage (see Chapter 7 of the:2001 edition): Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents: This document is proposed and managed by the National Container Standardization Technical Committee (SAC/TC6): This document is drafted by: Beijing Phoenix Dachang Aviation Equipment Maintenance Co., Ltd., Air China Cargo Co., Ltd., China Southern Airlines Air Group Co., Ltd., Eastern Airlines Logistics Co., Ltd., Water Transportation Research Institute of the Ministry of Transport, and Beijing Wuzi University: The main drafters of this document: Yang Shuhua, Zhou Liping, Liao Bing, Xu Yang, Wang Zheng, Lin Jingjing, Chen Yongrui, Li Feng, Li Jichun, Zhao Jieting: This document was first published in:2001, and this is the first revision: Thermal Performance Requirements for Air Freight Insulated Containers

1 Scope

GB/T 18433-2023 is the Chinese national standard on air cargo insulated containers thermal efficiency requirements, in the field of packaging and distribution of goods. 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 23 May 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 September 2023. Classification: ICS 55.180.01, CCS A85. 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 thermal performance technical requirements, test methods and marks of air cargo insulated containers: This document applies to air cargo insulated containers:

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 16299 Specifications and test methods for aircraft bilge containers

GB/T 18041 Civil Air Cargo Terminology

GB/T 23418 Terminology for air cargo and ground equipment

ISO 11242:1996 Aircraft-Pressureequalization Requirements for Aircraft Freight Container

Pressure Equalization

3 Terms and Definitions

The following terms and definitions defined in GB/T 23418 and GB/T 18041 apply to this document: 3:

1 It is composed of heat-insulating box wall, box door, bottom plate and box top, which can delay the heat transfer speed inside and outside the box and keep the internal environment at the set temperature all the time: Range of containers used for air transport: 3:

2 Outline contour contour Cross-sections of insulated containers, arched canopies, etc:
[Source: GB/T 23418-2009, 2:32] 3:3 base plate The bottom member of the containerized unit: [Source: GB/T 23418-2009, 2:13]

4 Technical Requirements

1 Basic requirements 4:1:

1 The overall design and certification of the basic structure and volumetric efficiency of air freight insulated containers (hereinafter referred to as "insulated containers") shall comply with