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

GB/T 5338.2-2023

Replacing GB/T 7392-1998

**Series 1 freight containers - Specification and testing - Part 2:
Thermal containers**

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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 is Part 2 of GB/T 5338 "Technical Requirements and Test Methods for Series 1 Containers". GB/T 5338 has been released

The following sections are included.

- Part 1. General containers;
- Part 2. Insulated containers;
- Part 4. Unpressurized dry bulk containers;
- Part 5. Platform and rack containers.

This document replaces GB/T 7392-1998 "Series 1. Technical Requirements and Test Methods for Insulated Containers" and is consistent with

Compared with GB/T 7392-1998, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) Changes to insulated containers, refrigerated containers, built-in mechanical refrigeration/heating containers, built-in, external, partitions, and fixing bolts

Definition of nail (see 3.1, 3.2, 3.4, 3.8, 3.9, 3.11, 3.18, 3.1, 3.2, 3.3, 3.4, 3.9, 3.10 of GB/T

7392-1998,

3.12, 3.19);

b) Added hanging frame, air adjustment, loading line, T-shaped floor, new air outlet, water trap, vacuum valve, defrost drainer, new insulated container,

Terms and definitions for high-temperature environments and aging insulated containers (see 3.3, 3.6, 3.12, 3.13, 3.14, 3.15, 3.16, 3.17, 3.20,

3.21, 3.22);

c) Delete the terms refrigerated and heated containers, refrigerated and heated containers with air conditioning or air conditioning devices, top air duct, bottom air duct and

Definition (see 3.6, 6.7, 3.13, 3.14 of GB/T 7392-1998);

d) The classification table of insulated containers has been changed (see Chapter 4, Chapter 4 of GB/T 7392-1998);

e) The marking content has been changed, and the loading line marking requirements and the marking requirements for the insulated box with a new air outlet device have been added (see Chapter 5,

Chapter 5 of GB/T 7392-1998);

f) Added external reference dimensions (see Table 2);

g) Changed the requirements for internal dimensions and minimum internal dimensions (see 6.2, 6.2 of GB/T 7392-1998);

h) The strength requirements for insulated containers have been changed (see 7.1.1, 7.1.1 of GB/T 7392-1998);

i) The load-carrying capacity requirements of insulated containers under operating conditions have been changed (see 7.1.4, 7.1.4 of GB/T 7392-1998);

j) The area of the load transfer area at the bottom of the insulated container has been changed (see 7.3.2.1, 7.3.2.1 of GB/T 7392-1998);

k) The design requirements for the load transfer area at the bottom of the insulated container have been changed [see 7.3.2.4, 7.3.2.4 of GB/T 7392-1998];

l) The hygiene requirements for insulated containers have been changed (see 7.8, 7.8 of GB/T 7392-1998);

m) Changed the requirements for fork grooves (see 7.9.1, 7.9.1 of GB/T 7392-1998);

n) The requirements for gooseneck grooves have been changed (see 7.9.2, 7.9.2 of GB/T 7392-1998);

- o) Changed the requirements for water pipe joints (see 7.9.4, 7.9.4 of GB/T 7392-1998);
- p) Changed the requirements for installation facilities of refrigeration equipment (see 7.9.5, 7.9.6 of GB/T 7392-1998);
- q) Added fresh air control requirements, humidity adjustment requirements, loading line requirements, floor requirements, and air circulation system requirements (see 7.9.7, 7.9.8, 7.9.9, 7.9.10, 7.9.11);
- r) Changed the dimensional requirements in the test (see 8.1.4, 8.1.5 of GB/T 7392-1998);
- s) Deleted the specific test methods of Test 1–Test 12 (see 8.2–8.13 of GB/T 7392-1998);
- t) Added requirements for Test 1 to Test 12 (see 8.1.5);
- u) Changed the requirements for air tightness test (see 8.2, 8.14 of GB/T 7392-1998);
- v) The methods and requirements of the heat leakage test have been changed (see 8.3, 8.15 of GB/T 7392-1998);
- w) The test conditions, methods and requirements for the performance test of insulated containers of mechanical refrigeration units (MRU) under refrigeration conditions have been changed.
(See 8.4, 8.16 of GB/T 7392-1998);
- x) Added the functional test for refrigeration of insulated containers using mechanical refrigeration units (MRU) in high temperature environments (see 8.5);
- y) Increased the energy consumption of mechanical refrigeration unit (MRU) for refrigeration of insulated containers at the set ambient temperature (see 8.6);
- z) Deleted the performance test of refrigerated containers using liquid refrigerant (see 8.17 of GB/T 7392-1998);
- aa) The strength test method for the installation device of hanging equipment has been changed (see 8.7, 8.18 of GB/T 7392-1998);
- bb) Changed the general requirements for electrical equipment for insulated containers (see 9.1, 9.1 of GB/T 7392-1998);
- cc) Changed the general requirements for standard voltage equipment (see 9.2, 9.2 of GB/T 7392-1998);
- dd) Delete the illustrations of the strength test of various models and sizes of insulated containers and the specific load transfer area of the bottom structure of the insulated container.

Body requirements, dimensional requirements for fork grooves, dimensional requirements for gooseneck grooves, air inlets and outlets, steady state diagrams and methods in heat

leakage tests

Conversion of statutory and non-statutory units of measurement (see Appendix A, Appendix B, Appendix C, Appendix D, Appendix F, GB/T 7392-1998

Appendix J, Appendix N);

ee) The description of the wiring phase sequence diagram symbols on the plugs and sockets of the insulated container has been changed (see Appendix D, GB/T 7392-1998

Appendix K);

ff) Added general requirements for 220V and dual-voltage equipment (see Appendix G).

This document is equivalent to ISO 1496-2:2018 "Series 1 Technical Requirements and Test Methods for Containers Part 2. Insulation Collection

Packing".

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

Introduction

Series 1 containers are international standard containers that are circulated around the world. The standardization and standardization of their design, production, and inspection are crucial.

important. In order to standardize and promote the development of Series 1 container transportation, ISO has formulated ISO 1496 "Technical Requirements and Tests for Series 1 Containers".

"Test Methods" series of standards, my country has carried out corresponding international standard transformation work to provide technical support for the development of my country's container industry.

GB/T 5338 "Technical Requirements and Test Methods for Series 1 Containers" is intended to guide and standardize the design, production and production of Series 1 containers.

Production, inspection and transportation, consisting of five parts.

---Part 1. General cargo containers. The purpose is to specify the technical requirements and test methods for Series 1 general cargo containers.

---Part 2. Insulated containers. The purpose is to specify the technical requirements and test methods for Series 1 insulated containers.

---Part 3. Liquid, gas and pressurized dry bulk tank containers. The purpose is to specify Series 1 liquids, gases and pressurized dry powders