

ICS 27.200
CCS J 73



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

GB/T 22918-2025

Replacing GB/T 22918-2008

**Technical requirements for temperature-controlled
transportation of perishable foodstuff**

易腐食品控温运输技术要求

Issued on: October 5, 2025

Implemented on: May 1, 2026

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

Table of Contents

Preface	III
1 Scope	1
2 Normative References	1
3 Terms and Definitions	1
4 Basic Transportation Requirements	2
5 Requirements for temperature-controlled transport vehicles	3
6 Loading (unloading) requirements	4
7 Requirements during transportation	5
8 Temperature traceability requirements	5
Appendix A (Normative) Temperature-Controlled Transportation Requirements for Perishable Foods	6
Appendix B (Normative) Transport Packaging for Perishable Foods	10
Appendix C (Informative) Methods for Loading Perishable Foods	12

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 specifies the technical requirements related to food quality. For food safety requirements, please refer to relevant laws, regulations, policies, and food safety standards. document.

This document replaces GB/T 22918-2008 "Technical Requirements for Temperature-Controlled Transportation of Perishable Foods". Compared with GB/T 22918-2008, the following changes are made.

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

- The scope has been changed (see Chapter 1, Chapter 1 of the 2008 edition);
- The terms "leakage coefficient" and "overall heat transfer coefficient" and their definitions have been added (see 3.8 and 3.9);
- The terms "perishable food," "frozen state," "cooled state," "temperature-controlled transportation," "temperature-controlled transportation vehicles," "chilling injury," and "freezing injury" have been changed.

Definitions (see 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7; 3.1, 3.4, 3.5, 3.7, 3.8, 3.9, 3.10 of the 2008 edition);

- The terms and definitions for "perishable goods," "hot state," and "uncooled state" have been removed (see sections 3.2, 3.3, and 3.6 of the 2008 edition);
- Packaging requirements have been changed (see 4.1.6, 4.5 in the 2008 version) and loading requirements (see 6.2.1, 4.6 in the 2008 version);
- Added grading standards and calculation methods for the airtightness performance of temperature-controlled transport vehicles (see 5.2.1 and 5.2.2);
- Added grading standards and calculation methods for the thermal insulation performance of temperature-controlled transportation vehicles (see 5.2.3 and 5.2.4);
- Added refrigeration units and their performance requirements for temperature-controlled transport vehicles (see 5.3.1);
- Added requirements for the solar reflectance performance of surface coatings on temperature-controlled transport vehicles (see 5.3.3);
- Loading (unloading) requirements have been changed (see Chapter 6, Chapters 5 and 7 of the 2008 edition);
- Requirements for transit have been changed (see Chapter 7, Chapter 6 of the 2008 edition);
- The time interval requirement for recording internal temperatures in temperature-controlled transport vehicles has been changed (see 8.1, 6.5 of the 2008 edition);
- Added requirements for temperature traceability information (see 8.2);
- Added requirements for temperature traceability information management (see 8.3, 8.4);
- The requirements for temperature-controlled transportation of perishable foods have been revised (see Appendix A, Appendix A of the 2008 edition);
- Changes have been made to the transport packaging of perishable foods (see Appendix B, Appendix B of the 2008 edition);
- The method of loading perishable foods has been changed (see Appendix C, Appendix C of the 2008 edition).

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 was proposed by the China National Light Industry Council.

This document is under the jurisdiction of the National Technical Committee on

Refrigeration Standardization (SAC/TC119).

This document was drafted by: Guangzhou University, Guangzhou Business College, Chinese Association of Refrigeration, Huashang International Engineering Co., Ltd., and Qingdao Haier Special Equipment Co., Ltd.

Electric Refrigerator Co., Ltd., China Railway Special Cargo Logistics Co., Ltd., Shanghai Ocean University, CRRC Yangtze Transportation Equipment Group Co., Ltd. Science and Technology Development Branch offices, Supercool (Shanghai) Refrigeration Equipment Co., Ltd., Hebei Yixue Refrigeration Technology Co., Ltd., China Academy of Railway Sciences Group Co., Ltd.

The company's Transportation and Economic Research Institute, Guangdong Hualiantong Digital Warehouse Co., Ltd., Guangzhou Bayer Cold Chain Polyurethane Technology Co., Ltd., and China Railway Guangzhou Railway Group Co., Ltd., Guangdong Xin Gongxiao Tianye Cold Chain Group Co., Ltd., Anhui Gongsheng Logistics Technology Co., Ltd., Guangzhou Municipal Institute of Standardization Institute, Linyi Yilan Logistics Information Technology Co., Ltd., Beijing Tingyue Technology Development Co., Ltd., Shanghai Carrier Transport Refrigeration Equipment Co., Ltd.

Qingdao Kenia Commercial Facilities Co., Ltd., Guangzhou Panyu Polytechnic, Shaoguan College, Xiamen City Vocational College, Hunan Medical College Changsha University, Hong Kong Logistics Association, Northeast Forestry University, Tianjin University of Commerce, COFCO Engineering Testing & Certification Co., Ltd.

The main drafters of this document are: Liu Guanghai, Xie Ruhe, Zhang Kui, Wang Bin, Lin Chaopeng, Wen Kexue, Liao Jing, Li Jin, Xie Jing, He Yuanxin, and Wang Hong.

Tang Jie, Ma Jin, Duan Fenghua, Yin Congxu, Si Chunqiang, Wang Bo, Guan Jiajia, Sun Tianhui, Li Jin, Wang Yan, Xie Hao, Wei Runhua, Sun Huan, Yang Fang Ren Jinhui, Liu Haibo, Huang Liming, Liao Yuanyang, Chang Hai, Wei Xiaozhe, Chen Huan, Liu Shengyan, Lu Lixin, Zheng Quanjun, Feng Zhihui, Zhong Hongxing, Wu Jianzhe Hu Kaiyong, Zhao Quanhua, Li Qingting, Wu Huijun, Huang Peng, Liao Suiming, Li Yang, Wang Hezhen, Zou Yifeng, Chen Jiahui, Ma Chao, Xu Bo, Ji Xiaoguang.

The release history of this document and the document it replaces is as follows.

- GB/T 22918-2008;
- This is the first revision.

1 Scope

This document specifies the basic requirements for temperature-controlled transportation of perishable foods, the requirements for temperature-controlled transportation vehicles, loading (unloading) requirements, and requirements during transportation.

Temperature traceability requirements, etc.

This document applies to the temperature-controlled transportation of perishable foods.

This document does not apply to temperature-controlled delivery of perishable foods using portable insulated boxes.

2 Normative references

GB/T 5338.2

GB/T 5600

GB/T 6388

GB/T 18354

GB/T 18517

GB/T 21145

GB/T 24616

GB 29753

GB/T 31550

GB/T 35145

3 Terms and Definitions

The terms and definitions defined in GB/T 18354 and GB/T 18517, as well as the following terms and definitions, apply to this document.

3.1 perishable food

A general term for foods that are easily perishable or spoiled when stored at room temperature or during distribution.

Note. Goods such as livestock and poultry meat, eggs, milk, aquatic products, fruits and vegetables are also called perishable goods.

[Source. GB 29753-2023, 3.1, with modifications]