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

GB/T 44139.1-2024

**Requirements for sleeping bags - Part 1: Thermal, mass and
dimensional requirements for sleeping bags designed for limit
temperatures of $\geq 20^{\circ}\text{C}$ and higher**

睡袋的要求 第1部分：设计用于极限低温-20℃以上睡袋的热性能、质量和尺寸要求

(English Translation)

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Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative references	
3 Terms and Definitions	
4 Requirement	
4.1 Thermal properties at lower temperature	
4.2 Water vapor permeability index	
4.3 Inner dimensions	
4.3.1 Inner length	
4.3.2 Maximum width of inner lining	
4.3.3 Width of inner foot	
4.4 Total mass	
5 Test methods	
5.1 Thermal performance test	
5.1.1 Principle	
5.1.2 Thermal manikin	
5.1.3 Artificial climate chamber	
5.1.4 Artificial ground	
5.1.5 Test samples and pretreatment	
5.1.6 Thermal resistance R_c (1) in posture 1	
5.1.7 Test Step	
5.1.8 Calculation of applicable temperature	
5.2 Water vapor permeability index	
5.3 Inner size	
5.3.1 Inner length	
5.3.2 Maximum width of inner lining	
5.3.3 Width of inner foot	
5.4 Total mass	
6 Test Report	
7 Tags	
7.1 Applicable temperature range Figure	

7.2 Identification

7.3 Consumption reminder information

Appendix A (Normative) Thermal resistance reference values for thermal manikin calibration

A.1 Overview

A.2 Thermal manikin

A.3 Clothing and artificial floors

A.4 Operating conditions

A.5 Reference value of thermal resistance of standard reference sleeping bag

Appendix B (Informative) Accuracy of measurement results

B.1 Repeatability

B.2 Reproducibility

Appendix C (Normative) Physiological model for calculating applicable temperature

C.1 Calculation of thermal balance and applicable temperature

C.2 Metabolic heat production M

C.3 Dry heat dissipation H_c

C.4 Evaporative heat dissipation H_e

C.5 Respiratory heat dissipation H_{res}

C.6 Human body heat change ΔS

C.7 Physiological data for calculating applicable temperature

C.8 Approximate calculation of applicable temperature

Appendix D (Informative) Warning on Misuse of Temperature Ratings

Appendix E (Informative) Basic Principles

Appendix F (Informative) Comfortable high temperature test method

F.1 Requirement

F.2 Thermal resistance $R_{c(2)}$ in position 2 Test Calibration of the thermal manikin

F.3 Thermal resistance $R_{c(2)}$ in posture 2

F.4 Test Step

F.5 Calculation of applicable temperature

F.6 Test report

F.7 Tags

F.8 Reference value of thermal resistance of thermal manikin calibration

F.9 Accuracy of measurement results

F.10 Approximate calculation of applicable temperature

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 Part 1 of GB/T 44139 Requirements for Sleeping Bags. GB/T 44139 has been published in the following parts.

--- Part 1: Thermal performance, quality and dimensional requirements for sleeping bags designed for use at extremely low temperatures above -20°C;

--- Part 2: Raw material properties.

This document is equivalent to ISO 23537-1:2022 "Requirements for sleeping bags - Part 1: Sleeping bags designed for extreme low temperatures above -20°C" Thermal performance, mass and dimensional requirements.

The following minimal editorial changes were made to this document.

---Added additional information such as symbol description, dimension unit, formula number, etc. of the formula;

--- Added annotations on the scope of application of the standard, warm manikin, etc.;

---Corrected editorial errors and citation number errors in the text.

Introduction

With the progress of society and the improvement of people's living standards, people's outdoor leisure activities have gradually increased, and sleeping bags have become a popular choice for camping activities.

As sleeping bags need to be used in special outdoor environments, the performance of the product and the performance of the raw materials are very important.

GB/T 44139 aims to provide a basis for the quality control of sleeping bag products and their raw materials, and is intended to consist of two parts.

--- Part 1: Thermal performance, quality and dimensional requirements for sleeping bags designed for use at extremely low temperatures above -20°C.

It provides test methods for thermal resistance and applicable temperature, and puts forward clear requirements for product quality and size.

--- Part 2: Raw material properties. The purpose is to put forward performance requirements and test methods for raw materials used in sleeping bags.

The formulation of this document provides a basis for the quality control of sleeping bag

products, especially the determination of the applicable temperature of sleeping bag products, and promotes the improvement of product quality.

It is also a measure to respond to the national call for national fitness and improve the level of supporting services, which will promote the health of the industry.

Healthy development and meeting market demand are of great significance.

Requirements for sleeping bags Part 1: Designed for extreme use Thermal performance, quality and performance of sleeping bags at low temperatures above -20°C Size requirements

1 Scope

This document specifies the thermal performance, dimensions and quality of adult sleeping bags used for sports and leisure activities with a low temperature limit of more than -20°C.

Labeling requirements, technical requirements and testing methods for indicators.

Note 1: For those implementing relevant product standards, the corresponding product standard requirements shall prevail.

This document describes the test method used to evaluate the thermal performance of sleeping bags under steady-state conditions.

NOTE 2: Some local insulation effects in sleeping bags without uniform filling may interfere with the calibration and/or test procedures. Ongoing research will continue to provide suggestions.

A reliable means of determining applicable temperatures is established.

This document does not apply to sleeping bags for specific purposes such as military use or exploration in extreme climate zones, nor does it apply to sleeping bags for children or infants.

NOTE 3 For ethical reasons, it is not feasible to conduct the necessary controlled sleep trials on children or infants in a climate-controlled room, so it is not possible to establish a test method.

Therefore, there is no predictive model for determining the extreme low temperature based on the thermal resistance of sleeping bags for children and infants.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.