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

GB/T 44944-2024

**Footwear and footwear components - Quantitative challenge
test method to assess antifungal activity**

鞋类和鞋类部件 抗真菌性能定量评估试验方法

(English Translation)

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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 is required.

This document is modified to adopt ISO.20150.2019 "Test methods for quantitative evaluation of the antifungal properties of footwear and footwear components".

The technical differences between this document and ISO.20150.2019 and their reasons are as follows.

--The range of colony counts (see 11.2.5) has been changed to further enhance the accuracy of document usage.

The following editorial changes were made to this document.

--Merge the two paragraphs in 7.2 into one paragraph;

-- The trade name "Triton™ X-100" was deleted and replaced with the name of the chemical substance (see 7.6);

--Added instructions for use of wetting agents on hydrophobic materials (see 7.6);

-- Deleted the trademark of the test strain, footnote b in Table 1 and the informative reference to EN 12353 (see ISO.20150.2019 Chapter 8);

-- Adjusted the order of footnotes a and b in Table 2 (see 11.1);

--Added a note to explain the judgment of the average number of colonies on the control sample after the volume of the inoculum solution is changed in the absorption method (see 12.2).

1 Scope

This document describes a test method for the quantitative assessment of the antifungal properties of footwear and footwear components.

This document applies to footwear and footwear components claiming antifungal or antimicrobial properties.

Two methods can be used to perform the test. The choice of method depends on the characteristics of the material and the test bacteria. The oscillation method is suitable for all types of for single absorbent materials, the absorption method is recommended. A brief description of each method is given in 11.2 and 11.3.

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.

ISO 7218 Microbiology of food and animal feeding stuffs - General requirements and guidance for microbiological examination animal feeding stuffs-General requirements and guidance for microbiological examinations) ISO.19952 Footwear-Vocabulary Note. GB/T 2703-2017 Footwear terminology (ISO.19952.2005, NEQ).

3 Terms and definitions

For the purposes of this document, the terms and definitions defined in ISO.19952 and the following apply.

Antifungal activity; antimycotic activity the material or product has the effect of preventing or slowing down the growth of microbial fungi, reducing the number of microbial fungi, or killing microbial fungi.

Control specimen

Material identical to the test material but without antifungal treatment.

NOTE: If no control sample is available, a sterile conical flask can be used as a control sample.

Neutralizer

Chemical agents used to inactivate, neutralize or inhibit the antifungal properties of antifungal agents.

4 Principle

A spore suspension of the specified or required fungal strain is inoculated onto the test and control specimens. There are two test methods to evaluate antifungal properties.