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

GB/T 39104.2-2020

**Textiles - Determination of antifungal activity of textile products
- Part 2: Plate count method**

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Foreword

GB/T 39104 "Determination of Antifungal Performance of Textiles" is divided into two parts.

---Part 1. Fluorescence method;

---Part 2. Plate counting method.

This part is Part 2 of GB/T 39104.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

This part uses the redrafting method to amend and adopt ISO 13629-2:2014

"Determination of Antifungal Performance of Textiles Part 2. Plates

Counting method.

Compared with ISO 13629-2:2014, the structure of this part is adjusted as follows.

---Change the content of the suspended paragraph in Chapter 8 of ISO 13629-2:2014 to 8.1 of this part, and the subsequent article number will be extended;

--- Change the content of the suspension section before 10.6.1 in ISO 13629-2:2014 to 10.6.1 of this part, and the subsequent article number will be extended.

The main technical differences between this part and ISO 13629-2:2014 are as follows.

---Regarding normative reference documents, this section has made adjustments with technical differences to adapt to my country's technical conditions and adjustments.

The situation is collectively reflected in Chapter 2 "Normative Reference Documents", and the specific adjustments are as follows.

* Deleted ISO 105-F02 and ISO 7218;

* Added reference to GB/T 20944.2-2007 (see Chapter 2);

---The washing method of the control sample in 3.1 Note 2 is supplemented, and the

content of Note 1 is deleted;

---Adjust the "Freezer. one can be adjusted to below -70 degrees C, and the other can be adjusted below -20 degrees C" in 7.26 to "Freezer.

Can be adjusted to below -80 degrees C";

--- Amend the title of 8.3 to "sterile water containing anionic surfactants" and supplement the sterile water containing anionic surfactants

Preparation method;

--- Correct the "Add 5mL surfactant in 10.5.2" in 10.5.3 to "Add 5mL anion table in 10.5.2

Sterile water for surfactants";

--- Correct the concentration unit of spore suspension from "mL" to "CFU/mL";

---The cold storage temperature conditions of the spore suspension have been supplemented (see 10.7.4);

--- Amend 11.1.2.1 and 11.1.3.1 "If necessary, samples may be washed according to ISO 6330 or other appropriate methods" to "If necessary,

Wash the sample according to the 10.1 method of GB/T 20944.2-2007";

---Added anti-fungal effect evaluation (see 12.3);

---Add "e) Description of fungal strains in the test report. strain deposit number and strain deposit institution;" the subsequent item numbers have been extended (see Chapter 13).

---The domestic preservation institution of corresponding fungal strains has been added (see Appendix A).

This part was proposed by the China National Textile and Apparel Council.

This part is under the jurisdiction of the National Textile Standardization Technical Committee (SAC/TC209).

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Introduction

This part of GB/T 39104 uses the plate counting method as a quantitative analysis method for antifungal performance.

The characteristics of the plate counting method are as follows.

---It is a routine method that is easy to operate in the laboratory;

---No need to use special equipment, such as fluorometer;

---Long history and universal procedures.

Determination of antifungal properties of textiles

Part 2.plate counting method

1 Scope

This part of GB/T 39104 specifies the method for quantitative determination of the antifungal properties of textiles by the plate counting method.

This section applies to all types of textiles, such as fibers, yarns, fabrics, clothing, bedding, home decoration products, etc.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 20944.2-2007 Evaluation of antibacterial properties of textiles Part 2.Absorption method

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Control sample control fabric

Fabric used to verify the growth conditions of test fungi.

Note. The control sample can use textiles with the same material as the sample but without anti-fungal finishing. If the above samples cannot be obtained, use a fluorescent whitening agent and

The unfinished 100% cotton fabric is used as a control sample. Before use, it should be at 60 degrees C without adding any detergent or brightener according to GB/T 8629.

The next cycle is washed 10 times, each cycle is washed for 10 minutes, and rinsed twice for a total of 5 minutes.

3.2

Antifungal agent

An agent that inhibits or slows down the growth of fungi or reduces the number of fungi.

3.3

Antifungal treatment

Finishing to inhibit or slow down the growth of fungi or reduce the number of fungi.

3.4

Spore suspension

A liquid in which fungal spores are uniformly dispersed in sterile water containing anionic surfactants.

3.5

Plate count method

A method of counting the number of colonies by ten-fold dilution method to calculate the number of fungi present after cultivation.

Note. The number of colonies is expressed in colony forming unit CFU.

3.6

Neutralizer

A chemical agent used to inactivate, neutralize or inhibit the antifungal properties of antifungal agents.