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Textiles - Determination of moisture drying rate

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Table of Contents

Foreword

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

This standard uses the redrafting method to modify the use of ISO 17617.2014 "Determination of textile drying rate."

This standard has structural changes compared to ISO 17617.2014, as follows.

--- Removed "5.1" and "6.6.1";

---Incorporate the suspended sections of 6.4, 6.5, 9.1 and 9.2 into 6.4.1, 6.5.1, 9.1.1 and 9.2.1, respectively;

--- Incorporate the content of the humidity control time in 7.1 into 7.2.3;

The main technical differences between this standard and ISO 17617.2014 and their reasons are as follows.

--- Regarding the normative reference documents, this standard has made technical adjustments. The adjustments are concentrated in Chapter 2

In the normative reference document, the specific adjustments are as follows.

* Replace ISO 139 with GB/T 6529 modified to international standards;

* Replace ISO 3696 with GB/T 6682 modified to international standards.

--- Added specific requirements for sampling and cutting specimens in 7.2.1 and 7.2.2, and added notes in 7.2.2.

--- Added paragraph 2 to 9.1.8.

--- Change Appendix B to an informative appendix.

For ease of use, this standard makes the following editorial changes.

--- Revised the definition of "drying rate (DR)" in 3.1;

--- Revised the expression of the principle of Chapter 4, making the language expression concise and accurate;

--- Added "5---test cover" in Figure 6.6 and the description;

--- Amend the 6.2 title "Petri dish" to "Sample plate" to make the test instrument more clear, and increase the sample support plate as a test

The sample plate makes the test instrument simple and easy to obtain;

--- Replace the "sample suspension device" in the description of Figure 6.4.1 with the "test cover", and add "4--sample suspension" in Figure 1 and the description.

Hanging device";

--- Removed the expression "such y-axis intercept is equal to 0" in 10.2.1, making the expression accurate;

--- Removed the example of reference BS4554 in A.4.1;

--- Change the "DM" in B.2 of Appendix B to "Mw";

--- Correct the use of Method B in the second paragraph of C.3.1 in Appendix C to "Using Method A1".

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

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

This standard was drafted. Wenzhou Darong Textile Instrument Co., Ltd., Lutai Textile Co., Ltd., Shandong Ruyi Technology Group Co., Ltd.

Company, China Textile Standard Inspection and Certification Co., Ltd., China National Accreditation Center for Conformity Assessment.

Introduction

In addition to traditional fabrics, such as cotton or polyester/cotton blended shirt fabrics, some textile materials with specific functions have entered the market and are used.

Sportswear, casual wear and casual clothes. The market size of such textiles is growing and is expected to continue as the global economy grows.

increase.

In this evolving market, existing methods for evaluating such functional fabrics have some

limitations for determining and functioning.

The new method based on the sexual statement has not yet been fully developed. This standard describes three new methods for determining the drying rate of textile materials for reflection.

The drying properties of the textile after the sweat is wetted by the wearer under light exercise or active conditions.

This standard can also be used for other textile materials that are required to measure the drying rate.

This standard describes three test methods, and the relevant parties should choose the most appropriate method for testing.

Determination of textile drying rate

1 Scope

This standard specifies the method for determining the drying rate.

This standard applies to all types of textile fabrics and does not apply to other forms of textiles, such as loose fibers or yarns.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

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

GB/T 6529 Standard atmosphere for textile conditioning and testing (GB/T 6529-2008, ISO 139.2005, MOD)

GB/T 6682 Analytical laboratory water specifications and test methods (GB/T 6682-2008, ISO 3696.1987, MOD)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Drying rate;

The amount of water vaporized in the sample per unit time.

Note. expressed as a percentage of moisture drying per unit time.

3.2

Drying time (100%) drying time (100%)

The time required for the moisture applied to the sample to dry completely.

4 Principle

Add a specified amount of water to the sample, measure the mass of residual moisture in the sample at regular intervals, and calculate the percentage of moisture drying.

The drying rate and drying time were determined by linear regression analysis on the percentage of moisture drying and the test time.

Two methods of measuring the vertical drying method (method A) and the horizontal drying method (method B) are given.

Method A is divided into method A1 (suspension method) and method A2 (weighing disk method). In method A1, the sample is mounted vertically on a suspension

On the suspension below the balance. In method A2, the sample is mounted vertically on a holder placed on the balance weighing pan. In both ways

Both sides of the sample were exposed to the test environment. In method B, the sample is placed flat on a support placed on the balance, the sample only

The upper side is exposed to the test environment.

Note. Water used in this test represents some body fluids that may come into contact with textile fabrics, including sweat, saliva or urine.

This standard gives the operation flow of three test methods, and the relevant parties choose the appropriate method for testing.

Method B is suitable for textile fabrics having better surface moisture absorption or capillary (wicking) effects.

5 reagent

Third-grade water meets the requirements of GB/T 6682.