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

SN/T 5245-2020

**Import and export textiles seven qualitative identification
methods for regenerated cellulose fibers**

进出口纺织品 七种再生纤维素纤维定性鉴别方法

(English Translation)

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Foreword

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

This standard was proposed and managed by the General Administration of Customs of the People's Republic of China.

Drafting organizations of this standard. Shijiazhuang Customs Technology Center of the People's Republic of China, Dalian Customs of the People's Republic of China.

1 Scope

This standard specifies lyocell fiber (cross-linked type), lyocell fiber (semi-cross-linked type), lyocell fiber (ordinary type), viscose fiber Qualitative identification methods for seven kinds of regenerated cellulose fibers including vitamin, cupra, bamboo pulp and modal fibers.

This standard applies to lyocell fiber (cross-linked type), lyocell fiber (semi-cross-linked type), lyocell fiber (ordinary type), viscose fiber Qualitative identification of vitamin, cupra, bamboo pulp and modal fibers and products, applicable to textile products containing seven kinds of regenerated cellulose fibers the tariff classification of products.

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 reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 2910.1-2009 Quantitative Chemical Analysis of Textiles Part 1: General Test Rules (GB/T 2910.1-2009, ISO 1833-1:2006, IDT) GB/T 4146.1 Textile Chemical Fiber Part 1: Generic Name (GB/T 4146.1-2009, ISO 2076:1999 MOD) GB/T 6682 Analytical laboratory water specifications and test methods (GB/T 6682-2008, ISO 3696:1987, MOD) FZ/T 01057.3 Textile fiber identification test method Part 3 Microscopic method

3 Terms and definitions

The following terms and definitions defined in GB/T 4146.1 apply to this document.

3.1 Lyocell fibre (cross-linked)

It is a kind of lyocell fiber, also known as lyocell A100 or Tencel A100. It is made by adding Axis crosslinking agent during the production process. The fiber There is no microfibrillation, and its breaking elongation is the smallest among lyocell fibers.

3.2 Lyocell fibre (half cross-linked)

It is a kind of lyocell fiber, also known as lyocell LF or Tencel LF. It is made by adding Axis crosslinking agent during the production process.

The art is different from the cross-linked type, and the nature is between the lyocell fiber (ordinary type) and the lyocell fiber (cross-linked type).

3.3 Lyocell fibre (general)

It is a kind of lyocell fiber, also known as standard lyocell, ordinary lyocell or Tencel G100. It is a microfibrillated fiber.

Its elongation at break is the largest among the dimensions.

3.4 Bamboo viscose fibre

Using bamboo as raw material, regenerated cellulose fiber obtained by viscose process.

4 Principle

According to the FZ/T 01057.3 microscopy method for identification, according to the morphological characteristics of the fiber, the type of regenerated cellulose fiber is preliminarily determined.

Reuse regenerated cellulose fibers in the same reagent, temperature, and different dissolution time of the difference in dissolution characteristics for qualitative determination.

5 Reagents

Unless otherwise specified, only use analytically pure reagents and tertiary water or equivalent purity water that meets the requirements of GB/T 6682.

5.1

Formic acid/zinc chloride solution. add 20.0 g of anhydrous zinc chloride (mass fraction > 98%) and 68 g of anhydrous formic acid to 100 g of water, or add 20.0 g of anhydrous zinc chloride (mass fraction > 98%) and 77.3 g of 88% formic acid (density 1.20g/mL) add water to 100 g, stir until Zinc chloride is completely dissolved.

Note: This reagent is harmful, and proper protective measures should be taken when using it.

5.2

Sodium hydrosulfite (sodium dithionite) solution. add 5 g of sodium hydrosulfite to 100 mL of 70 °C water, and shake well. The solution needs to be used on-the-spot.

Note: SOS powder is a dangerous chemical, easy to spontaneously ignite, and irritating. Read the safety instructions and other related materials carefully before use.

Take proper protective measures.

5.3

Dilute acetic acid. Take 40 mL of glacial acetic acid and dilute to 1 L with water.

6 Instruments

6.1

Balance. division value ≤ 0.01 g.

6.2

Conical flask with stopper. the capacity is not less than 250 mL.

6.3

Constant temperature water bath oscillator. keep the temperature at $(60 \pm 1) ^\circ\text{C}$ or $(70 \pm 1) ^\circ\text{C}$; reciprocating oscillation, the frequency is about 100 times/min.

6.4

Hemispherical stainless steel screen. (60~65) mesh.

7.1 Fading

If it is not certain that the sample is dyed with inactive dyes, perform the following pretreatments on the sample.

In accordance with the ratio of adding 100 mL of sodium hydroxide solution to each gram of the sample, put it into a cork (6.2) containing the sodium hydroxide solution (5.2), Tighten the stopper, shake the triangular flask, fully wet the sample, and place it in a constant temperature water bath shaker (6.3) at 70°C . Observe the color of the sample, After the color of the sample becomes lighter and stable, it is poured into a stainless steel screen (6.4) and filtered, rinsed with 70°C water and tertiary water, and then put in acetic acid Soak in the solution (5.3) for 10 minutes, and finally rinse thoroughly with tertiary water.

For undyed samples, or the color of the sample does not lighten after the above treatment, you can directly perform the test.

7.2 Pretreatment

If the sample contains other substances that affect the qualitative identification of the fiber, remove it according to the method specified in GB/T 2910.1-2009, and then Follow the steps below.

7.3 Preparation of test samples

According to the provisions of GB/T 2910.1-2009, 9.1, the processed samples are dried. If the sample is fabric, it needs to be disassembled into yarn, Make the sample into a loose yarn or fiber state, the length of the sample is about (20~30) mm, for use. Each sample is at least 0.5g, take 2 copies Sample.