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

GB/T 35935-2018

**Measurement of the mean and distribution of animal fibre
diameter -- Laser scan fibre diameter analysis method**

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Foreword

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

This standard uses redrafted Law Amending the International Wool Textile Organization Standard IWTO-12..2012 "fiber average diameter and distribution test side

Faroeiro - laser scanning fiber diameter analysis "(2012 English version).

This standard compared with IWTO-12..2012, there are more structural adjustments, Appendix A lists the standard and IWTO-12..2012

Reg number change control list.

The main technical and editorial differences between this standard and IWTO-12..2012 are as follows.

--- Not used "0. Brief History" section;

--- Not using "1. Introduction" section;

--- Not used "carding tops" "fineness subsamples" "fat-containing hair" "original" "sample" "tops" "subsamples" "sample" and "combed tops"

Terminology

--- Increasing reference to GB 1523 (see 7.1.1);

--- Increasing reference to GB/T 6529 (see 6.2);

--- Not used "Appendix E fabric and package yarn average fiber diameter and fiber diameter distribution measurement" part;

--- Not used "Appendix F average fiber curvature correction" part;

--- Not used "Appendix G standard revision" section;

--- Standard name changed to "average diameter and distribution of animal wool fibers test method of laser scanning fiber diameter analysis."

This standard by the National Fiber Standardization Technical Committee (SAC/TC513) centralized.

This standard was drafted. Fiber Inspection Bureau of Inner Mongolia Autonomous Region.

1 Scope

This standard specifies the application of laser scanning fiber diameter analysis of wool and other animal fibers average diameter and distribution method.

This standard applies to animal hair fiber, also applies to the top.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article

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

GB 1523 sheep wool

GB/T 6529 Textiles conditioning and testing standard atmosphere

IWTO tops test rules (Slivertestregulations)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Comfort index of comfort for apparel wool

The ratio of the number of fibers less than or equal to 30 μm to the total number of test fibers, expressed as a percentage.

3.2

Fiber Curvature fibrecurvature

The number of crimps per centimeter of fiber, expressed in centimeters.

4 principle

Cut the fiber fragments from the washed and dried animal wool fiber samples or wool tops, put it into an aqueous solution of isopropanol (8% by volume of water) or

The detergent-added aqueous solution is dispersed as a dilute suspension, passing the fiber segments through a measuring cell mounted in a laser beam. laser

The diameter of the beam is about 500 μm . When each fiber segment passes through the laser beam, the intensity of the laser beam is weakened, and the monitor senses the weakening value

The diameter of the fiber in micrometers is translated by the calibration station. The computer collects and processes each measurement to give sample fibers

The average diameter and standard deviation of statistical data.

5.1 laser scanning fiber diameter analyzer

Fiber diameter analyzer (see Appendix B) with the following device.

a) a circulation pump for conveying fiber fragments in an aqueous solution through a laser beam;