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

GB/T 25885-2010

**Measurement of the mean and distribution of fibre diameter for
wool -- Laser scan fiber diameter analyser**

羊毛纤维平均直径及其分布试验方法 激光扫描仪法

(English Translation)

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Foreword

This revised standard adopts IWTO-12-03 "Cerro (Sirolan) laser scanning fiber diameter analyzer to determine the average fiber diameter and fiber the method of "fiber diameter distribution (in English).

The standard measurement of the average fiber diameter and fiber straight according IWTO-12-03 "Cerro (Sirolan) laser scanning fiber diameter analyzer the method of size distribution "redrafted. For ease of comparison, in Appendix A lists the control of the standard terms and the standard terms of a IWTO Lanbiao.

This standard when using IWTO standard has been modified. Modify technical differences between a single vertical line identifies the article to which they are involved Section of the page margin. In Appendix B gives a list of the technical differences and the reasons for the reference.

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

- a) "The Program" be replaced by "this standard";
- b) use a decimal point instead of a decimal comma " , " . " , " ;
- c) Remove the IWTO standard brief history and introduction;
- d) name of the standard was changed to "the average diameter of the wool fiber and its distribution Test methods for laser scanner method." this standard Annex A, Annex B, Annex C and Annex D are informative appendices.

The standard proposed by the People's Republic of China Ministry of Agriculture.

This standard by the National Standardization Technical Committee of animal husbandry.

This standard was drafted. the Ministry of Agriculture Animal fur and products Quality Supervision and Testing Center (Lanzhou), Chinese Academy of Agricultural Sciences, Lanzhou Livestock and Veterinary Institute.

1 Scope

This standard specifies the average diameter of the wool fiber and its distribution by fiber diameter of the laser scanner measurement.

This standard applies to the measurement of raw wool, scoured wool and wool tops average fiber diameter and its distribution.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 6529 Textiles conditioning and testing using standard atmosphere (GB/T 6529-2008, ISO 139:2005, MOD) IWTO coring test rules IWTO tops average fiber diameter and the average length of the test rule IWTO-19-03 drill core samples of raw wool Determination hair and vegetable matter base group Principle 3 an aqueous solution of test specimens cut from the test sample into isopropanol (8 per cent of the water volume) or as an aqueous solution into the detergent for the diluted suspension to be dispersed, so that the test specimen is mounted by the measuring unit of the laser beam. Laser beam diameter of about 500 μ m, when each sample Test specimen by the laser beam, the intensity of the laser beam is weakened which monitor calibration sensor and by transforming into a test station in microns Fiber diameter, the computer samples the measured values \u200b\u200band statistics collection, and give the sample mean and standard deviation of the diameter of the data.

4.1 Laser Scanning Analyzer

A fiber disperser, a laser transmitter, a circulation pump, the tank, the lens, the second filter, a beam splitter, a computer, an optical fiber identification and digital converters and other components.

4.2 Cutter

4.2.1

miniature drill core sampler for various forms of wool, drill length 1.8mm ~ 2.0mm.

4.2.2

pole cutter used to cut all kinds of wool, cut length 1.8mm ~ 2.0mm.

4.2.3

Hastelloy slicer, cut the length of 1.8mm ~ 2.0mm.

4.3 Reagents

4.3.1

of distilled water.

4.3.2

isopropanol (AR).

4.3.3

neutral detergent (low foaming, deionized).

4.4 Hydrometer and thermometer

Hydrometer 4.4.1 SP.GR.0.800 ~ 0.900 in.

4.4.2

Thermometer range is 0 °C ~ 50 °C of.

5 Standard tops

Using the International Wool Laboratory Association (Interwoolabs; IH) standard tops (IH standard dry tops of eight different diameters carding