

ICS 59.060.10

CCS W 04



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

**GB/T 11603-2022**

Replacing GB/T 11603-2006

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**Determination of mean diameter of wool fibres - Air  
permeability method**

**Issued on: December 30, 2022**

**Implemented on: July 1, 2023**

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**Issued by: State Administration for Market Regulation, China National  
Standardization Administration**

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### foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1. Structure and Drafting Rules for Standardization Documents" drafting.

This document replaces GB/T 11603-2006 "Determination of average wool fiber diameter by airflow method", and is consistent with GB/T 11603-2006

In addition to structural adjustments and editorial changes, the main technical changes are as follows.

a) Changed the content of pre-conditioning and humidity control (see 6.1, 6.2, 6.3, 6.1, 6.2, 6.3 of the.2006 edition);

b) Deleted the sampling method for raw greasy wool, scoured wool, carbonized wool and combed wool top batch samples (see 7.1 of the.2006 edition);

c) The quality and quantity of samples have been changed (see 7.1.3, 7.2.3, 7.2.3.1, 7.2.3.2 of the.2006 edition);

d) Changed the relative humidity tolerance range in Appendix E (see Appendix E, Appendix C of the.2006 edition).

This document is modified to adopt ISO 1136.2015 "Determination of average diameter of wool fibers by airflow method".

Compared with ISO 1136.2015, this document has more structural adjustments.

Comparison list of structure number changes between two files

See Appendix A.

Compared with ISO 1136.2015, this document has more technical differences, and the vertical single

Lines (I) are marked. See Appendix B for a list of these technical differences and their causes.

The following editorial changes have been made to this document.

--- Changed the name of the standard;

--- Changed the indexing number in Figure 1, and replaced letters with numbers according to the legend indexing regulations of our country's standard, so as to adapt to the compilation of our country's standard

formats and requirements;

--- Added Appendix D (informative) "Daily Calibration of Airflow Meter" to provide reference materials for daily calibration of operators;

--- Deleted Appendix B (informative) "reproducibility of results" in the international document, and replaced it with Appendix F (informative) "test precision"

Instead, better give confidence limits for laboratory differences and instrument differences;

--- Deleted Appendix D (informative) "Information on special types of wool" in the international document;

--- Deleted references to international documents.

Please note that some contents of this document may refer to patents. The issuing agency of this document assumes no responsibility for identifying patents.

## 1 Scope

This document describes a test method for the determination of the mean diameter of wool fibers using an air flow meter.

This document is applicable to the fiber diameter detection of greasy wool, scoured wool, carbonized wool and combed wool.

This document does not apply to foreign wool fibres.

## 2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document.

GB/T 5706 Textile Wool Textile Product Terminology

GB/T 6529 Standard atmosphere for conditioning and testing textiles (GB/T 6529-2008,

ISO 139.2005, MOD)

GB/T 6978 Test Method for Cleaning Rate of Greasy Wool Oven Method

GB/T 8170 Numerical rounding off rules and expression and determination of limit values

### 3 Terms and Definitions

The following terms and definitions defined in GB/T 5706 apply to this document.

#### 3.1

Greasy hairy greasywool

Wool from sheep or from sheepskins that has not been washed, solvent degreased, charred or otherwise treated.

#### 3.2

scouredwool scouredwool

Wool fiber after washing to remove sweat fat, dust and dirt.

#### 3.3

carbonized wool carbonizedwool

The wool fiber after chemical treatment such as sulfuric acid embrittles and removes vegetable impurities.

#### 3.4

Combed top worstedtop

After the washed wool is mixed with oil, it is combed, merged and drawn by carding machine, needle carding machine and combing machine, and the fibers made are relatively parallel and straight.

Tops.

#### 3.5

laboratory sample laboratorysample

The fiber or top used for moisture conditioning, as the source of the sample.

#### 3.6

sample testsample

A sample taken from a laboratory sample for a single test.