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

**GB/T 16256-2008**

Replacing GB/T 16256-1996

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**Textile fibres - Test method for linear density - Vibroscope  
method**

纺织纤维 线密度试验方法 振动仪法

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### Foreword

This standard replaces GB/T 16256-1996 "textile fiber linear density of vibration test meter method." This standard and GB/T 16256-1996 compared to the main changes are as follows:

- a) modify the "Range" (1996 version Chapter 1, Chapter 1 of this edition);
- b) increasing the reference standard (Chapter 2 of this edition);
- c) Remove the "Definitions" (Chapter 3 of the 1996 version);
- d) Modify the "principle" (1996 edition, Chapter 4, Section 3 of this edition);
- e) an increase of instruments and appliances (Excerpts 4.2,4.3,4.4,4.5);
- f) modify the linear density units pre-tension (1996 version 8.1, this version 7.3);
- g) increased pre humidity control, humidity control and testing standard atmosphere (Chapter 5 of this edition);
- h) to modify the sample and test sample preparation (1996 edition, Chapter 7, Chapter 6 of this edition);
- i) an increase of the calculation result of the formula (Excerpts of 8.1, 8.2);
- j) increase the fiber samples weighing calibration for calibrating vibration analyzer (Excerpts A.1.2). Appendix A of this standard is an informative annex. This standard is proposed and managed by China Fiber Inspection Bureau. This standard by the Shanghai Fiber Inspection is responsible for drafting. The main drafters of this standard. Xu Yun, Xue Yongmei. This standard was first published in 1996, this is the first revision. Test method for linear density of textile fibers Vibrometer method

### 1 Scope

GB/T 16256-2008 is the Chinese national standard on textile fibres - test method for linear density - vibroscope method, in the field of textile and leather technology. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding

as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 7 August 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 December 2008. Classification: ICS 59.060, CCS W04. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the technical instrument measuring the resonant frequency of vibration Test Method Determination of linear density of textile fibers. This standard applies to units in the test line length of uniform density single textile fibers. High and flat shaped hollow chemical fiber Dimensional reference use.

## 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 6529 textiles conditioning and testing - Standard atmospheres

GB/T 8170 numerical rounding rules

GB/T 14334 chemical fiber staple sampling method Principle

3 By length of the unit linear density of individual fibers in a uniform tension to a predetermined resonant frequency of the vibration, the fibers according to the moment of inertia, Initial modulus fibers, the resonant frequency of the vibrating wire fiber length and pre-tension value, automatically calculate and display linear density of the sample.

### 4 instruments and appliances

4.1 vibration instrument should have the following accuracy.

- a) vibration analyzer with tension clamp quality should be within  $\pm 0.5\%$  of the value of a predetermined range;
- b) measuring the resonant frequency of error does not exceed  $\pm 0.5\%$ ;
- c) error fiber vibrating wire length does not exceed  $\pm 1\%$ .

4.2 tweezers, scissors, velvet boards, brushes.

4.3 Tension clamp.

4.4 Cutter. 10mm, 20mm, tolerance of  $\pm 0.01\text{mm}$ .

4.5 torsion balance. Range 5mg, dividing the value of 0.01mg. 5 preset humidity, the humidity and atmospheric testing standard

## **5.2 Standard conditioning and testing atmosphere**

5.2.1 polyester (PET), polyacrylonitrile (acrylic), temperate three standard polypropylene (PP) samples according to GB 6529 provisions atmosphere execution, Recommended humidity-time 1h.