

ICS 59.080.01  
CCS W 04

**FZ**

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

**FZ/T 01057.9-2012**

Replacing FZ/T 01057.10-1999

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**Test method for identification of textile fibers. Part 9:  
Birefringence**

纺织纤维鉴别试验方法 第9部分：双折射率法 清晰版

**(English Translation)**

**Issued on: January 1, 1970**

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### Foreword

FZ/T 01057 "Test method for identification of textile fibers" is divided into the following sections.

- Part 1. General Description;
- Part 2. combustion;
- Part 3. Microscopy;
- Part 4. dissolution method;
- Part 5. nitrogen chlorine colorimetric reaction;
- Part 6. melting point of law;
- Part 7. Density gradient method;
- Part 8. infrared spectroscopy;
- Part 9. birefringence method.

This section FZ/T Part of 901,057.

This section drafted in accordance with GB/T 1.1-2009 given rules.

Compared with the FZ/T 01057-1999, this revision will be part of the integration of the original 11 to 9, the order of the parts has been adjusted, Part 5 is about the original "coloring test methods" and Part 11 "system identification method," remove the original Part 6 "nitrogen-containing chlorine color reaction Act "is replaced by Section 5, Section 7 of the original" melting point Act "is replaced by Part 6, Section 9 of the original" density gradient "is replaced by Section 7, Part of the original 10 "birefringence Act" is replaced by Section 9.

This section instead of FZ/T 01057.10-1999 "textile fiber identification test method for

determination of the birefringence method", and FZ/T 01057.10-1999 compared to the main technical changes are as follows.

Name --- this section be changed to "Test method for identification of textile fibers - Part 9. birefringence Law";

--- Increased Chapter 2, "Normative references";

--- The "trials", "Instrument adjustment" incorporated in Chapter 7, "Programs";

--- The "test temperature, humidity and the humidity treatment" is incorporated in Chapter 6, "specimen" in;

--- Increased Chapter 8, "the test report." this part is proposed by the China Textile Industry Association.

This part of the National Standardization Technical Committee on the basis of standard textiles Technical Committee (SAC/TC209/SC1) centralized.

This section drafted by. National Textile Products Quality Supervision and Inspection Center, Shanghai Textile Research Institute.

## 1 Scope

FZ/T 01057 provisions of this section, a test method of textile fiber identification method using birefringence.

This section applies to the identification of textile fibers.

## 2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 6529 Textiles Standard conditioning and testing atmosphere FZ/T 01057.1 Test method for identification of textile fibers - Part 1. General Description Principle 3 Fiber has birefringence, polarized light microscopy were obtained from the vibration direction of the polarization plane parallel to the longitudinal direction of the fibers off Reflectance and refractive index perpendicular to the longitudinal direction of the fiber, the two subtraction That made birefringence. Because different types of fiber birefringence is not the same, and so discriminating the type of fiber.

## 4 Reagents

**4.1**

alpha- bromonaphthalene, AR,  $n(20\text{ }^{\circ}\text{C}) = 1.658$ .

**4.2**

paraffin oil, AR,  $n(20\text{ }^{\circ}\text{C}) = 1.470$ .

**4.3**

three water,  $n(20\text{ }^{\circ}\text{C}) = 1.333$ .

## **5 Apparatus & Instruments**

**5.1**

polarizing microscope.

**5.2**

Abbe refractometer.

**5.3**

sodium light.

**5.4**

black velvet boards, tweezers, slide droplets bottles.

## **6 Sample**

Extraction and ready to perform the required FZ/T 01057.1 of the sample. Before the test sample should be standard atmosphere in GB/T 6529 provisions in the humidity.