

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

FZ/T 01057.2-2025

**Test method for identification of textile fibers - Part 2: Burning
behavior**
(English Translation)

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Foreword

This document was drafted in accordance with the rules given in GB/T 1.1-2020

"Directives for standardization -- Part 1.Rules for the structure and drafting of standardizing documents".

This document is Part 2 of FZ/T 01057 "Test method for identification of textile fibers".

The following parts of FZ/T 01057 have been published.

- Part 1.Introduction;
- Part 2.Burning behavior;
- Part 3.Microscopy;
- Part 4.Solubility;
- Part 5.Qualitative observation of colour-production for chloring and nitrogen;
- Part 6.Qualitative observation of colour-production for chlorine and nitrogen;
- Part 7.Density gradient column method;
- Part 8.Infrared absorption spectrum;
- Part 9.Birefringence;

- Part 10. Near-infrared spectroscopy;
- Part 11. Pyrolysis gas chromatography-mass spectrometry.

This document replaces FZ/T 01057.2-2007 "Test method for identification of textile fibers - Part 2. Burning behavior". Compared with FZ/T 01057.2-2007, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- Added a clause on "Terms and definitions" (see Clause 3 of this Edition);
- Revised the drafting rules for "Apparatus and tools" and deleted the reference to a magnifying glass (see Clause 5 of this Edition; Clause 4 of Edition 2007);
- Revised the wording for "Test specimens" (see Clause 6 of this Edition; Clause 5 of Edition 2007);
- Changed "Procedure" to "Steps" and revised the wording (see Clause 7 of this Edition; Clause 6 of Edition 2007);
- Revised the wording of item a) in "Test report" (see Clause 8 of this Edition; Clause

7 of Edition 2007);

Test method for identification of textile fibers -- Part 2.

Burning behavior

1 Scope

This document specifies a test method for the identification of textile fibers - the burning behavior.

This document is applicable to the preliminary identification of various textile fibers, but it is not suitable for fibers that have undergone flame-retardant treatment.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

FZ/T 01057.1, Test method for identification of textile fibers -- Part 1. General

3 Terms and definitions

There are no terms and definitions requiring definition in this document.

4 Principle

Fiber types are identified based on their behavior when approaching, contacting, and moving away from a flame, as well as the odor produced during combustion and the characteristics of the residue left behind.

6 Specimen

The preparation and pre-treatment of specimens shall be carried out in accordance with FZ/T 01057.1.

7.1 Cut a small specimen from the sample using scissors (5.1). Hold it with tweezers

(5.2) and slowly bring it close to the flame of a lit alcohol lamp (5.3). Observe and record the fiber's reaction to heat (e.g., melting, shrinking).

7.2 Place the specimen into the flame and allow it to burn completely. Observe and

record the burning behavior of the fiber within the flame.

7.3 Remove the specimen from the flame. Observe and record the burning behavior of

the fiber after removal from the flame.

7.5 After the specimen has cooled, observe the state of the residue, gently rub it between

your fingers, and record the observations.

7.6 If necessary, repeat steps 7.1~7.5. Observe the burning characteristics of the fibers

until their basic category can be identified. Descriptions of the burning characteristics of various fibers are provided in Annex A.

8 Test report

The test report shall include the following information.

- a) reference to this document;
- b) information on the specimen;
- c) deviations from this document;
- d) observations of the specimen at each stage of the test;
- e) the fiber type of the specimen.

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