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FZ

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

FZ/T 01057.4-2007

Test method for identification of textile fibres - Part 4: Solubility

纺织纤维鉴别试验方法 第4部分：溶解法

(English Translation)

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Table of Contents

Foreword	3
1 Scope	5
2 Normative References	5
3 Principle	5
4 Reagent	5
5 Instrument and Tool	5
6 Sample	6
7 Preparation of Solution	6
8 Procedure	6
9 Solubility Properties of Common Textile Fibers	7
10 Test Report	7
Appendix A (Informative)	8

1 Scope

This Part of FZ/T 01057 specifies a test method for textile fiber identification - solubility method.

This Part is applicable to qualitative identification for textile fibers.

2 Normative References

Provisions of the following documents, through reference in this Part of FZ/T 01057, constitute the provisions of this Part. For dated reference, the subsequent amendments (excluding correction) or revisions of these publications do not apply.

However, the parties who enter into an agreement according to this Part are encouraged to research whether the latest editions of these documents are applied or not. For undated references, the latest edition of the normative document is applicable to this part.

FZ/T 01057.1 Test Method for Identification of Textile Fibers - Part 1: General

Introduction

3 Principle

A fiber may be identified by utilizing the different solubility property at different temperature and in different chemical agents.

4 Reagent

The reagents to be used are analytically pure or chemical pure; they include:

concentrated sulphuric acid, concentrated nitric acid, formic acid, glacial acetic acid, fluohydric acid, sodium hydrate, sodium hypochlorite, potassium rhodanate, N,N-dimethylformamide, cyclohexanone, dimethylketone, phenol, tetrachloroethane, 1,4-butyrolactone, dimethylsulphoxide, dichloromethane, carbon tetrachloride, tetrahydrofuran, cupric hydroxide, ammonium hydroxide (stronger ammonia water) and acetic ether.

5 Instrument and Tool

the solubility results gotten differ significantly.

9 Solubility Properties of Common Textile Fibers

The solubility properties of common textile fibers are as shown in Table A.1 of Appendix A.

10 Test Report

The test report shall include the following information:

- a) The statement that the test complies with the requirements of this Part;
- b) The information of the sample;
- c) The defect from the specified procedure;
- d) The solubility condition of the sample; and e) The fiber type of the sample.

Page

9 of

15

Fiber

Solution (solvent)

95%~98%

Sulfuric acid solution

70%

Sulfuric acid solution

60%

Sulfuric acid solution

40%

Sulfuric acid solution

36%~38%

Hydrochloric acid

15%

Hydrochloric acid

24°C~30°C

Boiling

24°C~30°C

Boiling

24°C~30°C

Boiling

24°C~30°C

Boiling

24°C~30°C

Boiling

24°C~30°C

Boiling

Cotton

Hemp

Natural silk

Animal plush

Viscose

Lyocell fiber

Modal fiber

Copper ammonia fiber

Acetate fiber

Triacetate fiber

Soybean fiber

Modified milk-proteinpolyacrylonitril fiber

Polylactic acid fiber

Dacron

Acrylon

Polyamide fiber 6

Polyamide fiber 66

Elastane

Polyvinyl alcohol fiber

Polyvinyl chloride fiber

Polyvinylidene chloride fiber

Polyethylene fiber

Page

15 of

15

Modified milk-proteinpolyacrylonitril fiber

Polylactic acid fiber

Dacron

Acrylon

Polyamide fiber 6

Polyamide fiber 66

Elastane

Polyvinyl alcohol fiber

Polyvinyl chloride fiber

Polyvinylidene chloride fiber