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

GB/T 2910.11-2024

**Textiles - Quantitative chemical analysis - Part 11: Mixtures of
certain cellulose fibres with certain other fibres(method using
sulfuric acid)**

(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 11 of GB/T 2910 Textiles - Quantitative chemical analysis. The following parts have been issued for GB/T 2910.

- Part 1.General principles of testing;
- Part 2.Ternary fibre mixture;
- Part 3.Mixtures of acetate and certain other fibres (method using acetone);
- Part 4.Mixtures of certain protein fibres with certain other fibres (method using hypochlorite);
- Part 5.Mixtures of viscose, cupro or modal and cotton fibres (method using sodium zincate);
- Part 6.Mixtures of viscose or certain types of cupro or modal or lyocell and cotton fibres (method using formic acid and zinc chloride);
- Part 7.Mixtures of polyamide and certain other fibres (method using formic

acid);

-- Part 8.Mixtures of acetate and triacetate fibres (method using acetone);

-- Part 9.Mixtures of acetate and triacetate fibres (method using benzyl alcohol);

-- Part 10.Mixtures of triacetate or polylactide and certain other fibres (method using dichloromethane);

-- Part 11.Mixtures of certain cellulose fibres with certain other fibres (method using sulfuric acid);

-- Part 12.Mixtures of acrylic, certain modacrylics, certain chlorofibres, certain elastane fibres with certain other fibres (method using dimethylformamide);

-- Part 13.Mixtures of certain chlorofibers and certain other fibers (method using carbon disulfide/acetone);

-- Part 14.Mixtures of acetate and certain chlorofibres (method using acetic acid);

-- Part 15.Mixtures of jute and certain animal fibres (method by determining nitrogen content);

-- Part 16.Mixtures of polypropylene and certain other fibres (method using xylene);

-- Part 17.Mixtures of chlorofibers (homopolymers of vinyl chloride) and certain other fibers (method using sulfuric acid);

-- Part 18.Mixtures of silk and wool or hair (method using sulfuric acid);

-- Part 19.Mixtures of cellulose fibres and asbestos (method by heating);

-- Part 20.Mixtures of elastane and some other fibers (method of using dimethylacetamide);

-- Part 21.Mixtures of chlorofibers, certain modacrylics, certain elastanes, acetates, triacetates and certain other fibers (method using cyclohexanone);

-- Part 22.Mixtures of viscose or certain types of cupro or modal or lyocell and flax of ramie fibres (method using formic acid and zinc chloride);

-- Part 23.Mixtures of polyethylene and polypropylene (method using

cyclohexanone;

-- Part 24. Mixtures of polyester and some other fibers (method using phenol and tetrachloroethane);

-- Part 25. Mixtures of polyester and certain other fibres (method using trichloroacetic acid and chloroform);

-- Part 26. Mixtures of melamine and cotton or aramide fibers (method using hot formic acid);

-- Part 101. Mixtures of soybean protein composite fibre and certain other fibers.

This document serves as a replacement of GB/T 2910.11-2009 Textiles - Quantitative chemical analysis - Part 11. Mixtures of cellulose and polyester fibres (method using sulfuric acid). In comparison with GB/T 2910.11-2009, apart from structural adjustments and editorial modifications, the main technical changes are as follows.

-- Change the Scope by including polypropylene fibre, polyethylene fibre, polyester composite elastic fibre, polyolefin elastic fibre, and polypropylene/polyamide composite fibre (see Chapter 1; Chapter 1 of the

2009 edition);

-- Change the Test principle by specifying the use of 75% (mass fraction) sulfuric acid (see Chapter 4; Chapter 3 of the 2009 edition);

-- Add glass stopper in Apparatus (see 6.1);

-- Add "The correction factor (d value) for the mass change of polypropylene/polyamide composite fibres is 1.01, and of the rest is 1.00." in Calculation and presentation of results (see Chapter 8).

This document modifies and adopts ISO 1833-11:2017 Textiles - Quantitative chemical analysis - Part 11. Mixtures of certain cellulose fibres with certain other fibres (method using sulfuric acid).

The technical differences between this document and ISO 1833-11:2017, and the causes for these differences are as follows.

-- Add polyethylene fibre to the Scope to meet the current domestic product

testing needs (see Chapter 1; Chapter 1 of ISO 1833-11.2017);

-- Use GB/T 2910.1 to replace ISO 1833-1, to facilitate the application of this document (see Chapter 5, Chapter 6, Chapter 7; Chapter 5, Chapter 6, Chapter

7 of ISO 1833-11.2017).

This document also makes the following editorial modifications.

-- Add Appendix A (Informative) "Identification method of polyester composite elastic fibres";

-- Add Appendix B (Informative) "Identification method of polyolefin elastic fibre".

1 Scope

This document describes a method for the determination of cellulose fibre content in binary mixtures of certain cellulose fibres and certain other fibres consisting of the following fibres, after removal of non-fibrous matter, using the sulfuric acid method.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the version corresponding to that date is applicable to this document; for undated references, the latest version (including all amendments) is applicable to this document.

GB/T 2910.1, Textiles - Quantitative chemical analysis - Part 1. General principles of testing (GB/T 2910.1-2009, ISO 1833-1.2006, IDT)

3 Terms and definitions

No terms and definitions need to be defined in this document.

4 Principle

Use 75% (mass fraction) sulfuric acid to dissolve and remove cellulose fibres from a mixture of known dry mass; collect the residue; wash, dry and weigh it; use the corrected mass to calculate its percentage of the dry mass of the mixture. Obtain the