



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

GB/T 2910.16-2024

**Textiles - Quantitative chemical analysis - Part 16: Mixtures of
polypropylene fibres with certain other fibres (method using
xylene)**

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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 16 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 with certain other 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 2910.16-2009 Textiles - Quantitative chemical analysis - Part 16. Mixtures of polypropylene and certain other fibres (method using xylene). In comparison with GB/T 2910.16-2009, apart from structural adjustments and editorial modifications, the main technical changes are as follows.

-- Change the Scope by including lyocell fiber, polyester composite elastic fiber, melamine fiber and polyacrylate fiber (see Chapter 1; Chapter 1 of the 2009 edition);

-- Change the boiling point of xylene from "137 degrees C ~ 142 degrees C" to "136 degrees C ~

145 degrees C" (see Chapter 5; Chapter 4 of the 2009 edition);

-- Change "stoppered conical flask" to "stoppered round-bottom flask" (see Chapter 6; Chapter 5 of the 2009 edition);

-- Add 6.3 Heating mantle apparatus (see 6.3);

-- Improve the Test procedures, by specifying the preheating temperature, and supplementing the alternative test apparatus (see Chapter 7; Chapter 6 of the

2009 edition);

-- Add the d value of the newly added fibers (see Chapter 8);

-- Change the confidence limit in Precision from "not more than +/-1" to "not

more than $\pm 1\%$ " (see Chapter 9; Chapter 8 of the 2009 edition).

This document modifies and adopts ISO 1833-16:2019 Textiles - Quantitative chemical analysis - Part 16. Mixtures of polypropylene fibres with certain other fibres (method using xylene).

The technical differences between this document and ISO 1833-16:2019, and the causes for these differences are as follows.

-- Use the normative reference GB/T 2910.1 to replace ISO 1833-1 (see Chapters 5 ~ 8), for standard use.

1 Scope

This document describes a method for the determination of the polypropylene fiber content in a two-component mixture consisting of the following fibers after removal of non-fibrous matter using the xylene 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.

3 Terms and definitions

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

4 Principle

Use boiling xylene to dissolve and remove the polypropylene fiber 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.

5 Reagents

Use the reagents specified in GB/T 2910.1 and 5.1.

Warning. This reagent is harmful to the human body.