



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

GB/T 2910.25-2017

**Textiles -- Quantitative chemical analysis -- Part 25: Mixtures of
polyester and certain other fibres (method using trichloroacetic
acid and chloroform)**

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Foreword

GB/T 2910 "Textiles - Quantitative chemical analysis" contains the following parts:

- Part 1: General principles of testing;
- Part 2: Ternary fiber mixture;
- Part 3: Mixtures of acetate and certain other fibers (method using acetone);
- Part 4: Mixtures of certain protein and certain other fibers (method using hypochlorite);
- Part 5: Mixtures of viscose, cupro or modal and cotton fibers (method using sodium zincate);
- Part 6: Mixtures of viscose or certain types of cupro or modal or lyocell and cotton fibers (method using formic acid and zinc chloride);
- Part 7: Mixtures of polyamide and certain other fibers (method using formic acid);
- Part 8: Mixtures of acetate and triacetate fibers (method using acetone);
- Part 9: Mixtures of acetate and triacetate fibers (method using benzyl alcohol);
- Part 10: Mixtures of triacetate or polylactide and certain other fibers (method using dichloromethane);
- Part 11: Mixtures of cellulose and polyester fibers (method using sulfuric acid);

- Part 12: Mixtures of acrylic, certain modacrylics, certain chloro-fibers, certain elastane fibers with certain other fibers (method using dimethylformamide);
- Part 13: Mixtures of certain chloro-fibers and certain other fibers (method using carbon disulfide/acetone);
- Part 14: Mixtures of acetate and certain chloro-fibers (method using acetic acid);
- Part 15: Mixtures of jute and certain animal fibers (method by determining nitrogen content);
- Part 16: Mixtures of polypropylene and certain other fibers (method using xylene);
- Part 17: Mixtures of chloro-fibers (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);

Textiles - Quantitative chemical analysis - Part 25: Mixtures of polyester and certain other fibers (method using trichloroacetic acid and chloroform)

Caution - Persons using this Part shall have practical experience in formal laboratory work. This Part does not address all possible security issues. It is the user's responsibility to take appropriate safety and health measures and ensure compliance with the conditions stipulated by the relevant national laws and regulations.

1 Scope

This Part of GB/T 2910 stipulates the method for determination of polyester fiber content of the bi-component mixture of polyester fiber and cellulose fiber (cotton, flax, ramie, viscose fiber, modal fiber, lyocell fiber, cupro ammonia fiber), animal hair fiber (wool, cashmere, etc.), synthetic fiber (polyacrylonitrile fiber, aramid fiber), after removal of non-fiber substances, by the trichloroacetic acid and chloroform method. This Part applies to mixtures of polyester fibers and certain other fibers.

2 Normative references

The following documents are essential to the application of this document. For the dated

documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this standard.

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 Principles

Dissolve and remove polyester fibers from a mixture of known dry mass, using trichloroacetic acid/chloroform solution. Collect the residue. Rinse, dry and weigh it. Use the corrected mass, to calculate the percentage of the dry mass of the mixture. The mass percentage of polyester fiber is obtained from the difference.

4 Reagents

Use the reagents specified in GB/T 2910.1 and 4.1, 4.2 and 4.3 of this Part.

4.1 Trichloroacetic acid/chloroform solution: Prepare trichloroacetic acid and chloroform, in a mass ratio of 1:1.

Safety warning: This reagent is harmful to the human body, so proper protective measures shall be taken when using it.

4.2 Trichloroacetic acid/chloroform lotion: Add chloroform to 15 g of trichloroacetic

acid, until reaching 100 g.

5 Devices

Use the equipment specified in GB/T 2910.1 and 5.1 of this Part.

6 Test steps

Follow the general procedures specified in GB/T 2910.1. Then follow the steps below.

6.2 Add 50 mL of trichloroacetic acid/chloroform solution (4.1), to each gram of specimen.

6.4 Place the conical flask containing the specimen for 15 min. Shake it from time to

time.

6.6 Pour 100 mL of trichloroacetic acid/chloroform solution (4.1) into the conical flask.

Then pour the liquid into a glass sand core crucible. Then use trichloroacetic acid/chloroform washing solution (4.2) and chloroform (4.3), to wash all the residues in the conical flask into a glass sand core crucible.

6.8 Finally, dry the glass sand core crucible and its residue. Cool it down. Weigh it.

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