
**Textiles — Quantitative chemical
analysis —**

**Part 3:
Mixtures of acetate with certain other
fibres (method using acetone)**

Textiles — Analyse chimique quantitative —

*Partie 3: Mélanges d'acétate avec certaines autres fibres (méthode à
l'acétone)*



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Published in Switzerland

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 38, *Textiles*.

This second edition cancels and replaces the first edition (ISO 1833-3:2006), which has been technically revised. The main changes compared to the previous edition are as follows:

- the title has been changed from “Mixtures of acetate **and** certain other fibres...” to “Mixtures of acetate **with** certain other fibres...”;
- in [Clause 1](#), some remaining fibres have been added;
- the mandatory [Clause 3](#) “Terms and definitions” has been added and the subsequent clauses have been renumbered;
- in [Clause 7](#) (former Clause 6), “stirring from time to time” has been added;
- in [Clause 8](#) (former Clause 7), a specific *d* factor for melamine and polyacrylate has been added;
- in [Clause 9](#) (former Clause 8), “percentage point” to avoid confusion has been added.

A list of all parts in the ISO 1833 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Textiles — Quantitative chemical analysis —

Part 3:

Mixtures of acetate with certain other fibres (method using acetone)

1 Scope

This document specifies a method, using acetone, to determine the mass percentage of acetate, after removal of non-fibrous matter, in textiles made of mixtures of

— acetate

with

— wool, animal hair, silk, regenerated protein, cotton (scoured, kiered, or bleached), flax (or linen), hemp, jute, abaca, alfa, coir, broom, ramie, cupro, viscose, modal, polyamide, polyester, acrylic, elastolefin, elastomultiester, melamine, polypropylene/polyamide bicomponent, polyacrylate and glass fibres.

It is not applicable to mixtures containing modacrylic fibres, nor to mixtures containing acetate fibres that have been deacetylated on the surface.

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 edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1833-1, *Textiles — Quantitative chemical analysis — Part 1: General principles of testing*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Principle

The acetate is dissolved out from a known dry mass of the mixture, with acetone. The residue is collected, washed, dried and weighed; its mass, corrected if necessary, is expressed as a percentage of the dry mass of the mixture. The percentage of acetate is found by difference.

5 Reagents

Use the reagents described in ISO 1833-1 together with that described in 5.1.

5.1 Acetone.

NOTE The boiling point of acetone is 56 °C.

6 Apparatus

Use the apparatus described in ISO 1833-1 together with that described in [6.1](#).

6.1 Conical flask, minimum capacity 200 ml, glass-stoppered.

7 Test procedure

Follow the general procedure described in ISO 1833-1, and then proceed as follows.

To the specimen contained in the conical flask, add 100 ml of acetone per gram of specimen and shake the flask. Allow it to stand for 30 min at room temperature, stirring from time to time, and then decant the liquid through the weighed filter crucible.

Repeat the treatment twice more (making three extractions in all), but for periods of 15 min only, so that the total time of treatment in acetone is 1 h. Wash the residue into the filter crucible with acetone and drain using suction. Refill the crucible with acetone and allow it to drain under gravity. Finally, drain the crucible using suction, dry the crucible and residue, then cool and weigh them.

8 Calculation and expression of results

Calculate the results as described in the general instructions of ISO 1833-1.

The value of d is 1,00 except for melamine and polyacrylate, for which d is 1,01.

9 Precision

On a homogeneous mixture of textile materials, the confidence limits of the results obtained by this method are not greater than ± 1 percentage point for the confidence level of 95 %.