

---

---

**Textiles — Quantitative chemical  
analysis —**

**Part 9:  
Mixtures of acetate with certain other  
fibres (method using benzyl alcohol)**

*Textiles — Analyse chimique quantitative —*

*Partie 9: Mélanges d'acétate avec certaines autres fibres (méthode à  
l'alcool benzylique)*



STANDARDSISO.COM : Click to view the full PDF of ISO 1833-9:2019



**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

|                                               |    |
|-----------------------------------------------|----|
| Foreword .....                                | iv |
| 1 Scope .....                                 | 1  |
| 2 Normative references .....                  | 1  |
| 3 Terms and definitions .....                 | 1  |
| 4 Principle .....                             | 1  |
| 5 Reagents .....                              | 1  |
| 6 Apparatus .....                             | 2  |
| 7 Test procedure .....                        | 2  |
| 8 Calculation and expression of results ..... | 2  |
| 9 Precision .....                             | 2  |

STANDARDSISO.COM : Click to view the full PDF of ISO 1833-9:2019

## 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](http://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](http://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](http://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 1833-9:2006), 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 triacetate fibres (method using benzyl alcohol)" to "Mixtures of acetate **with certain other fibres** (method using benzyl alcohol)";
- in [Clause 1](#) several remaining fibres have been added;
- in [Clause 7](#) a precision has been added in the procedure;
- in [Clause 8](#) a specific  $d$  factor for melamine has been added;
- in [Clause 9](#) "percentage point" has been added to avoid confusion.

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](http://www.iso.org/members.html).

# Textiles — Quantitative chemical analysis —

## Part 9:

## Mixtures of acetate with certain other fibres (method using benzyl alcohol)

### 1 Scope

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

— acetate

with

— triacetate, polypropylene, elastolefin, melamine, polypropylene/polyamide bicomponent and polyacrylate fibres.

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

### 5 Reagents

Use the reagents described in ISO 1833-1 together with those given in [5.1](#) and [5.2](#).

#### 5.1 Benzyl alcohol.

#### 5.2 Ethanol.

## 6 Apparatus

Use the apparatus described in ISO 1833-1 together with those given in [6.1](#), [6.2](#) and [6.3](#).

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

**6.2 Mechanical shaker**.

**6.3 Heating apparatus**, suitable for maintaining the temperature of the flask at  $(52 \pm 2) ^\circ\text{C}$  (for example water bath with thermostat).

## 7 Test procedure

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

To the specimen contained in the conical flask, add 100 ml of benzyl alcohol per gram of specimen.

Insert the stopper, secure the flask to the stopper so that the flask is immersed in the water bath, kept at a temperature of  $(52 \pm 2) ^\circ\text{C}$ .

Shake the flask for  $(20 \pm 1)$  min at this temperature.

Filter the contents of the flask through the weighed filter crucible.

Replace the residue in the flask by means of forceps, add to the flask a fresh portion of benzyl alcohol and shake as before at a temperature of  $(52 \pm 2) ^\circ\text{C}$  for  $(20 \pm 1)$  min.

Filter the contents of the flask through the same weighed filter crucible and repeat the cycle a third time with a third 100 ml portion of benzyl alcohol.

Pour the liquid and the residue into the same weighed filter crucible; wash any fibres from the flask into the crucible with an extra quantity of benzyl alcohol at a temperature of  $(52 \pm 2) ^\circ\text{C}$ . Drain the crucible using suction.

Transfer the fibres into a flask, rinse with ethanol and, after manual shaking, decant through the same filter crucible.

Repeat this rinsing operation three times.

Transfer the residue into the same filter crucible.

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, 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  $\pm 1$  percentage point for the confidence level of 95 %.