*भारतीय मानक*

***Indian Standard***

**IS 1564 : 2024**
**ISO 1833-10 : 2019**

# वस्त्रादि — मात्रात्मक रासायनिक विश्लेषण — ट्राइएसीटेट या पॉलीलैक्टाइड और कुछ अन्य प्रकार के रेशों का मिश्रण (डाइक्लोरोमीथैन विधि द्वारा)

*( दूसरा पुनरीक्षण )*

# Textiles — Quantitative Chemical Analysis — Mixtures of Triacetate or Polylactide with Certain other Fibres (Method Using Dichloromethane)

*( Second Revision )*

ICS 59.060.01



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Chemical Methods of Test Sectional Committee, TXD 05

NATIONAL FOREWORD

This Indian Standard (Second Revision) which is identical to ISO 1833-10 : 2019 ‘Textiles — Quantitative chemical analysis — Part 10: Mixtures of triacetate or polylactide with certain other fibres (method using dichloromethane)’ issued by the International Organization for Standardization (ISO) was adopted by the Bureau of Indian Standards on the recommendation of the Chemical Methods of Test Sectional Committee and approval of the Textiles Division Council.

This Indian Standard was first published in 1988. The first revision of this standard has been undertaken to align it with the latest version of ISO 1833-10 : 2019.

The text of ISO standard has been approved as suitable for publication as an Indian Standard without deviations. Certain conventions are however not identical to those used in Indian Standards. Attention is particularly drawn to the following:

a) Wherever the words ‘International Standard’ appears referring to this standard, they should be read as `Indian Standard’; and

b) Comma (,) has been used as a decimal marker while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

In this adopted standard reference appears to one International Standard for which Indian Standard also exist. The corresponding Indian Standard which is to be substituted in it’s place, is listed below along with it’s degree of equivalence for the edition indicated:

| *International Standard* | *Corresponding Indian Standard* | *Degree of Equivalence* |
|---|---|---|
| ISO 1833-1 Textiles — Quantitative chemical analysis — Part 1: General principles of testing | IS 9068 : 2021/ISO 1833-1 : 2020 Textiles — Quantitative chemical analysis — General principles of testing (*first revision*) | Identical |

In reporting the result of a test or analysis made in accordance with this standard, if the final value observed or calculated, is to be rounded off, it shall be done in accordance with IS 2 : 2022 ‘Rules for rounding off numerical values (*second revision*)'.

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# TEXTILES — QUANTITATIVE CHEMICAL ANALYSIS — MIXTURES OF TRIACETATE OR POLYLACTIDE WITH CERTAIN OTHER FIBRES (METHOD USING DICHLOROMETHANE)

*( Second Revision )*

## 1 Scope

This document specifies a method, using dichloromethane, to determine the mass percentage of triacetate or polylactide, after removal of non-fibrous matter, in textiles made of mixtures of

— triacetate or polylactide

with

— wool or other animal hair, silk, protein, cotton, viscose, cupro, modal,lyocell, polyamide, polyester, acrylic, elastomultiester, polypropylene, elastolefin, melamine, polypropylene/polyamide bicomponent,polyacrylate and glass fibres.

Triacetate fibres which have been partially hydrolysed (i.e. saponification) cease to be completely soluble in the reagent. In such cases, this method is not applicable.

## 2 Normative references

The following referenced documents are indispensable for the application 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 triacetate or polylactide fibres are dissolved out from a known dry mass of the mixture, with dichloromethane. 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 triacetate or polylactide is found by the difference.

## 5 Reagents

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

**5.1 Dichloromethane**.

**SAFETY PRECAUTIONS — The toxic effects of this reagent shall be borne in mind and full precautions shall be taken during use.**

## 6 Apparatus

Use the apparatus described in ISO 1833-1 together with that given in 6.1.

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

## 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 (6.1), add 100 ml of dichloromethane (5.1) per gram of specimen. Insert the stopper and shake the flask to wet out the specimen. Allow the flask to stand for 30 min at room temperature, shaking it at intervals of about 10 min.

Decant the liquid through the weighed filter crucible.

Add 60 ml of dichloromethane to the residue in the flask, shake it by hand, and filter the contents of the flask through the filter crucible. Transfer any residual fibres to the crucible by washing out the flask with a little more dichloromethane.

Drain the crucible using suction to remove excess liquid, refill the crucible with dichloromethane, and allow it to drain under gravity.

Finally, drain the crucible using suction. Rinse with hot water to eliminate all the solvent, 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 polyester elastomultiester, elastolefin and melamine fibre, for which $d$ is 1,01.

In the case of triacetate that is not completely soluble in the reagent, the percentage of triacetate is calculated using a value of $d$ is 1,02. The percentage of triacetate thus calculated should be deducted from 100 to give the percentage of the other fibre.

## 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 %.

**Bureau of Indian Standards**

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**Review of Indian Standards**

Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the website-www.bis.gov.in or www.standardsbis.in.

This Indian Standard has been developed from Doc No.: TXD 05 (22471).

## Amendments Issued Since Publication

| Amend No. | Date of Issue | Text Affected |
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