Textiles - Quantitative chemical analysis - Part 29: Mixtures of polyamide with polypropylene/polyamide bicomponent (method using sulfuric acid) (ISO 1833-29:2020)



## EESTI STANDARDI EESSÕNA

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Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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## ICS 59.060.01

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## EUROPEAN STANDARD

NORME EUROPÉENNE

## EN ISO 1833-29

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## **English Version**

Textiles - Quantitative chemical analysis - Part 29: Mixtures of polyamide with polypropylene/polyamide bicomponent (method using sulfuric acid) (ISO 1833-29:2020)

Textiles - Analyse chimique quantitative - Partie 29: Mélanges de polyamide avec bicomposant polypropylene/polyamide (méthode à l'acide sulfurique) (ISO 1833-29:2020) Textilien - Quantitative chemische Analysen - Teil 29: Mischungen aus Polyamid mit Polypropylen/Polyamid-Bikomponente (Verfahren mit Schwefelsäure) (ISO 1833-29:2020)

This European Standard was approved by CEN on 22 May 2020.

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## **European foreword**

This document (EN ISO 1833-29:2020) has been prepared by Technical Committee ISO/TC 38 "Textiles" in collaboration with Technical Committee CEN/TC 248 "Textiles and textile products" the secretariat of which is held by BSI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2020, and conflicting national standards shall be withdrawn at the latest by December 2020.

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The text of ISO 1833-29:2020 has been approved by CEN as EN ISO 1833-29:2020 without any modification.

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## Foreword

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This document was prepared by Technical Committee ISO/TC 38, *Textiles*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 248, *Textiles and textile products*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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

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## Introduction

Mixtures of polyamide with polypropylene/polyamide bicomponent are often used for carpets. Polypropylene is the matrix of the bicomponent which includes polyamide fibrils.

The method described in ISO 1833-18 was found suitable to dissolve polyamide fibres without dissolving the polyamide fibrils inside the bicomponent.

As the scope of ISO 1833-18 is specific to mixtures of silk with protein fibres, a specific part was developed for mixtures of polyamide with polypropylene/polyamide bicomponent, using the same in ISO 18. operating conditions.

The method described in ISO 1833-7 was not found suitable as formic acid dissolves all polyamide.

## Textiles — Quantitative chemical analysis —

## Part 29:

# Mixtures of polyamide with polypropylene/polyamide bicomponent (method using sulfuric acid)

## 1 Scope

This document specifies a method, using sulfuric acid, to determine the mass percentage of polyamide, after removal of non-fibrous matter, in textiles made of binary mixtures of

polyamide

with

polypropylene/polyamide bicomponent.

## 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

For the purposes of this document, the following terms and definitions apply.

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

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

#### 3.1

#### bicomponent

two strongly bonded polymers of different chemical and/or physical construction

#### 3.2

#### polypropylene/polyamide bicomponent

 $\it bicomponent$  (3.1) where between 10 % and 25 % by mass of polyamide fibrils span inside the polypropylene matrix

[SOURCE: ISO 2076:2013, 4.33, modified — The definition has been modified.]

## 4 Principle

The polyamide is dissolved from a known dry mass of the mixture with 75 % (mass fraction) sulfuric acid. 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 polyamide/polypropylene bicomponent is found by the difference.