



SLOVENSKI STANDARD SIST EN ISO 1973:2021

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Nadomešča:

SIST EN ISO 1973:1999

Tekstilna vlakna - Ugotavljanje dolžinske mase - Gravimetrična in vibroskopska metoda (ISO 1973:2021)

Textile fibres - Determination of linear density - Gravimetric method and vibroscope method (ISO 1973:2021)

Textile Fasern - Bestimmung der Feinheit - Gravimetrisches Verfahren und Schwingungsverfahren (ISO 1973:2021)

Fibres textiles - Détermination de la masse linéique - Méthode gravimétrique et méthode au vibroscope (ISO 1973:2021)

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Ta slovenski standard je istoveten z: EN ISO 1973:2021

ICS:

59.060.01 Tekstilna vlakna na splošno Textile fibres in general

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EUROPEAN STANDARD

EN ISO 1973

NORME EUROPÉENNE

EUROPÄISCHE NORM

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ICS 59.060.01

Supersedes EN ISO 1973:1995

English Version

Textile fibres - Determination of linear density - Gravimetric method and vibroscope method (ISO 1973:2021)

Fibres textiles - Détermination de la masse linéique -
Méthode gravimétrique et méthode au vibroscope (ISO
1973:2021)

Textile Fasern - Bestimmung der Feinheit -
Gravimetrisches Verfahren und Schwingungsverfahren
(ISO 1973:2021)

This European Standard was approved by CEN on 5 October 2021.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN ISO 1973:2021) 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 April 2022, and conflicting national standards shall be withdrawn at the latest by April 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

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According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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INTERNATIONAL
STANDARD

ISO
1973

Third edition
2021-01

**Textile fibres — Determination of
linear density — Gravimetric method
and vibroscope method**

*Fibres textiles — Détermination de la masse linéique — Méthode
gravimétrique et méthode au vibroscope*

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ISO 1973:2021(E)

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).

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For an explanation of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 23, *Fibres and yarns*, 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).

This third edition cancels and replaces the second edition (ISO1973:1995), which has been technically revised.

The main changes compared to the previous edition are as follows:

- ISO 6989 has been added as a normative reference in [Clause 2](#) and [8.2.1](#);
- a note specifying the tension application has been added in [3.2](#);
- a correction factor (for measurements on stiff fibres) has been permitted in [4.3](#), [8.2.1](#) and [10.3](#);
- testing equipment without a scale but with a display, respectively connection to a computer system in [4.3](#) for linear density reading is permitted;
- reference to [5.2.2](#) “Forceps” (instead of 5.1.6) has been corrected;
- automatic application of a loading force instead of the use of forceps in [5.2.2](#) and [8.2.3](#) is permitted;
- [Formulae \(A.1\) to \(A.8\)](#) have been corrected;
- grammar and linguistic consistency of definitions in [4.3](#), [8.1.3](#), [8.2.2](#), [9.2.1](#), [A.1](#) and [A.2](#) have been reviewed.

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.

Introduction

The linear density of individual fibres is one of the most important physical characteristics in terms of processability and predictability of the next-step intermediate product, such as spun-yarns and nonwovens. Other than testing methods, such as air-permeability on test specimen consisting of mass of fibres (Micronaire), this document describes two measurement methods to determine the mass per unit length (= linear density) using either a bundle of 50 fibres, or on individual fibres. While the first method determines an average value, only, in relatively short time, the second method measures the individual fibre fineness and therefore the statistical distribution of the laboratory sample, too.

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