



SLOVENSKI STANDARD
SIST EN ISO 1973:1999

01-marec-1999

Tekstilna vlakna - Ugotavljanje dolžinske mase - Gravimetrična in vibroskopska metoda (ISO 1973:1995)

Textile fibres - Determination of linear density - Gravimetric method and vibroscope method (ISO 1973:1995)

Textilien-Fasern - Bestimmung der Feinheit - Gravimetrisches Verfahren und Schwingungsverfahren (ISO 1973:1995)

Fibres textiles - Détermination de la masse linéique - Méthode gravimétrique et méthode au vibroscope (ISO 1973:1995)

<https://standards.iteh.ai/catalog/standards/sist/c52603b7-3652-4e5a-91e8-51dbbdacc190/sist-en-iso-1973-1999>

Ta slovenski standard je istoveten z: EN ISO 1973:1995

ICS:

59.060.01 Tekstilna vlakna na splošno Textile fibres in general

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en

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EUROPEAN STANDARD

EN ISO 1973

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 1995

ICS 59.060

Descriptors: textiles, fibres, tests, density measurement, determination, linear density, gravimetric analysis

English version

**Textile fibres - Determination of linear density -
Gravimetric method and vibroscope method
(ISO 1973:1995)**

Fibres textiles - Détermination de la masse
linéique - Méthode gravimétrique et méthode au
vibroscope (ISO 1973:1995)

Textilien-Fasern - Bestimmung der Feinheit -
Gravimetrisches Verfahren und
Schwingungsverfahren (ISO 1973:1995)

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Ref. No. EN ISO 1973:1995 E

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Foreword

The text of the International Standard ISO 1973:1995 has been prepared by Technical Committee ISO/TC 38 "Textiles" in collaboration with CEN/TC 248 "Textiles and textile products".

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of an identical text or by endorsement, at the latest by May 1996, and conflicting national standards shall be withdrawn at the latest by May 1996.

According to CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 1973:1995 has been approved by CEN as a European Standard without any modification.

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NOTE: Normative references to International Standards are listed in annex ZA (normative)

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Annex ZA (normative)
Normative references to international publications
with their relevant European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN</u>	<u>Year</u>
ISO 139	1973	Textiles - Standard atmospheres For conditioning and testing	EN 20139	1992

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INTERNATIONAL
STANDARD

ISO
1973

Second edition
1995-11-01

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

iTeh STANDARD PREVIEW

(standards.iteh.ai)
*Fibres textiles — Détermination de la masse linéique — Méthode
gravimétrique et méthode au vibroscope*

SIST EN ISO 1973:1999

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Reference number
ISO 1973:1995(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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 1973 was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 6, *Fibre testing*.

This second edition cancels and replaces the first edition (ISO 1973:1976), which has been technically revised.

Annexes A and B of this International Standard are for information only.

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

1 Scope

This International Standard specifies a gravimetric method and a vibroscope method for the determination of the linear density of textile fibres applicable respectively to:

- a) bundles of fibres;
- b) individual fibres.

Useful data can be obtained on man-made fibres and, with less precision, on natural fibres.

The procedures can be applied only to fibres which can be kept straight and, in the case of bundles, parallel, during test preparation. These methods are properly applicable when the fibres are readily freed of crimp. They are not applicable to tapered fibres.

NOTE 1 The vibroscope method may not be applicable to hollow and flat (ribbon-like) fibres.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 139:1973, *Textiles — Standard atmospheres for conditioning and testing*.

ISO 1130:1975, *Textile fibres — Some methods of sampling for testing*.

ISO 6989:1981, *Textile fibres — Determination of length and length distribution of staple fibres (by measurement of single fibres)*.

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 tension: Force tending to cause the extension of a body.

NOTE 2 In textile testing, the tension applied is based on the linear density or cross-sectional area.

3.2 tensioning force: Force effective on a fibre specimen during the vibroscope test.

4 Principle

Two methods for determining linear density are described:

4.1 Gravimetric method (direct method by weighing), for bundles of fibres

Specimens of a given length are weighed on a balance. This method is applicable to bundles of fibres.

4.2 Vibroscope method, for individual fibres

Individual fibres of a given length and under specified tension are subjected to vibration at resonance frequency. The linear density is determined from the conditions of the resonance state, i.e. the resonance frequency, the length of the fibre and the tensioning force. The linear density is read directly on the scale of the vibroscope apparatus. This method assumes that the linear density of the tested length of the fibre is constant.