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BS ISO 2403:2014



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Textiles — Cotton fibres — Determination of micronaire value

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This British Standard is the UK implementation of ISO 2403:2014.

The UK participation in its preparation was entrusted to Technical Committee TCI/24, Physical testing of textiles.

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Textiles — Cotton fibres — Determination of micronaire value

Textiles — Fibres de coton — Détermination de l'indice micronaire



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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).

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).

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 meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 38, *Textiles*, Subcommittee SC 23, *Fibres and yarns*.

This second edition of ISO 2403 cancels and replaces the first edition (ISO 2403:1972), which has been technically revised.

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Textiles — Cotton fibres — Determination of micronaire value

1 Scope

This International Standard specifies a method of determining the micronaire value of loose disorientated cotton fibres taken from bales, laps and slivers, or other sources of lint cotton.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

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

3 Terms and definitions

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

3.1

micronaire value

measure of the air permeability of a mass of cotton under specified conditions, expressed in terms of an arbitrary scale, the so-called micronaire scale

Note 1 to entry: The micronaire scale is based on a range of cottons to which micronaire values have been assigned by international agreement.

4 Principle

Air is passed through a test specimen consisting of a plug of fibres. The permeability is indicated on a scale for recording variations in either the rate of flow through, or the pressure difference across, the plug. The mass and volume of the test specimen are either a constant for a given type of instrument or varied appropriately in relation to each other. The scale indicating variations in permeability can be calibrated in arbitrary units of micronaire value or marked in the appropriate absolute units of rate of flow or of pressure difference and a table or graph provided for conversion of the observed readings into micronaire values.

5 Apparatus and materials

5.1 Balance of sufficient capacity to weigh the test specimen required for the airflow instrument used, with an accuracy of $\pm 0,2$ %.

5.2 Airflow instrument, whose principal parts are:

5.2.1 Compression cylinder with perforated ends of such dimensions that with the prescribed mass of specimen each cubic centimetre shall contain between 0,16 g and 0,30 g of cotton when compressed.

5.2.2 Means for measuring the air permeability of the specimen, comprising, for example: