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**Wool — Determination of fibre  
length distribution parameters —  
Capacitance method**

*Laine — Détermination des paramètres de distribution de longueur  
des fibres — Méthode capacitive*





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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](http://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](http://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 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 the following URL: [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

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

This second edition cancels and replaces the first edition (ISO 2648:1974), which has been technically revised.

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

- the title has been modified as "*Wool — Determination of fibre length distribution parameters — Capacitance method*";
- the content structure has been updated;
- in the scope, the text for “wool/synthetic blends” has been modified;
- the mandatory [Clauses 2](#) and [3](#), “Normative references” and “Terms and definitions” respectively, have been added, and the subsequent clauses have been renumbered;
- [Clause 4](#) “Principle” has been modified;
- in [Clause 5](#), “measuring apparatus” has been modified and additional apparatus ([5.2](#), [5.3](#) and [5.4](#)) for test specimen preparation have been included;
- the “Test specimen” clause has been deleted;
- [Clause 6](#) “Conditioning and testing atmosphere” has been modified;
- a new [Clause 7](#), “Sampling and preparation of laboratory sample” has been added;
- the former [Clause 6](#), “Preparation of samples for testing” has been modified as [8.1](#) “Preparation of test specimen”;
- in [Clause 8](#), the procedure for apparatus measuring has been added;

- a new subclause (9.2) on “Digital system” has been added;
- the former “Definition of the test on top sliver-notes on sampling” clause has been deleted;
- new [Clauses 10](#) and [11](#), “Test report” and “Precision” respectively, have been added;
- the former Annexes A (Literature reference), Annex C (The Almeter), Annex D (Control of the machine), Annex E (Calibration check of the machine) and Annex F (Accuracy of the method) have been deleted;
- a new [Annex A](#), “Preparation of top and sliver”, has been added;
- former [Annex B](#) has been modified, and its title has been replaced with “Test specimen preparation”;
- a new [Annex C](#), “The introduction of the precision of the method”, has been added;
- the former Figures 1 to 4 have been deleted;
- new [Figures A.1](#) to [A.3](#) have been added;
- a Bibliography has been added.

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](http://www.iso.org/members.html).



# Wool — Determination of fibre length distribution parameters — Capacitance method

## 1 Scope

This document specifies a method for the determination of fibre length distribution parameters (principally mean length, expressed as Hauteur or Barbe, and the coefficient of variation of the measurement) on slivers and rovings made from combed wool or combed synthetic fibres.

As the fibres of different chemical structure have different di-electric values, the method is not directly applicable to slivers made up of a blend of wool/synthetic fibres.

## 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 139, *Textiles — Standard atmospheres for conditioning and 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 <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

### 3.1

#### Hauteur

##### *H*

mean cross-section biased length of the test specimen

Note 1 to entry: It is expressed in millimetres (mm).

### 3.2

#### Barbe

##### *B*

mean weight-biased length of the test specimen

Note 1 to entry: It is expressed in millimetres (mm).

Note 2 to entry: Only Hauteur is certifiable.

### 3.3

#### total sample

total of the *laboratory samples* (3.4) taken to represent the lot

[SOURCE: ISO 137:2015, 3.2, modified — The definition has been slightly modified.]