INTERNATIONAL STANDARD

ISO 137

Second edition
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Wool — Determination of fibre diameter — Projection microscope method

Laine — Détermination du diamètre des fibres — Méthode du microscope à projection

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Foreword

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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 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 cancels and replaces the first edition (ISO 137:1975), which has been technically revised.

This second edition to ISO 137 is based on the test method IWTO-8:2011, drawn up by the International Wool Textile Organization (IWTO).

Wool — Determination of fibre diameter — Projection microscope method

1 Scope

This International Standard specifies the procedure and the measurement conditions for the determination of the wool fibre diameter using a projection microscope.

The method is suitable for wool fibres in any form and also for other fibres of reasonably circular cross-section. (In the case of dyed, bleached or finished fibres, the diameter might be different from that of fibres not subjected to such treatments. The estimates of fibre diameter obtained at the various stages of processing one lot of wool will not necessarily be the same.)

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 1130:1975, *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
mean diameter
average value of the projected width of either the wool fibre or another fibre of reasonably circular cross-section

3.2
total sample
sample intended to be representative of a large bulk of material, in the state in which it is sent to the laboratory

Note 1 to entry: The total sample is prepared according to the procedure specified in ISO 1130.

3.3
subsample
sample randomly drawn from and representative of the total sample, which has been suitably cleaned, dried and conditioned where appropriate

3.4
test specimen
part of a subsample which is tested at one time

4 Principle

Projection on a screen of the magnified images of the profiles of wool fibre snippets, and measurement of their width by means of a graduated scale. The operating technique ensures a random sampling of the fibres to be measured.