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Textiles — Synthetic filament yarns — Determination of shrinkage in dry-hot air (after treatment)

Textiles - Fils de filaments synthétiques - Détermination du taux de retrait dans l'air sec et chaud

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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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).

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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*.

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Textiles — Synthetic filament yarns — Determination of shrinkage in dry-hot air (after treatment)

1 Scope

This International Standard specifies methods for the determination of dry-hot air shrinkage (after treatment) of synthetic filament yarns, skein method and single-end method. The skein method provides two forms of measurement which are of manual and automatic types. The single-end method gives the result by manual measurement.

In case of dispute, manual measurement procedure is to be used.

If these methods are not applicable, the corresponding test methods may be agreed between interested parties.

This International Standard is applicable to synthetic filament yarns of linear density less than 3 000 dtex.

This International Standard is not applicable to partially oriented yarns.

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*

3 Terms and definition

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

3.1
shrinkage in dry-hot air (after treatment)
decrease in length of a specimen as a result of thermal treatment in dry-hot air, expressed as a percentage of its original length, which measured under tension before and after treatment

4 Principle

Under specific condition, a test specimen is treated in dry-hot air. Shrinkage is calculated as variation in length, measured before and after treatment.

5 Apparatus and materials

5.1 Skein winding reel, which meets the following requirements:

a) 1 000 ± 2,5 mm reel circumference, driven either automatically or manually;

b) a traversing mechanism to avert overlapping when several skeins are wound at the same time;

c) a tensioning device to maintain tension within the recommended limits, accurate to within ± 10 %;

d) a device to count reel revolutions, preferably capable to stop winding automatically and warn when nearing the specified number of reel revolutions;

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