TECHNICAL REPORT

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Textiles and textile products — Guidelines on the determination of the precision of a standard test method by interlaboratory trials

Textiles et produits textiles — Lignes directrices pour la détermination de la fidélité d'une méthode d'essai normalisée au moyen d'essais d'interlaboratoires

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

In exceptional circumstances, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example), it may decide by a simple majority vote of its participating members to publish a Technical Report. A Technical Report is entirely informative in nature and does not have to be reviewed until the data it provides are considered to be no longer valid or useful.

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.

ISO/TR 24697 was prepared by Technical Committee ISO/TC 38, *Textiles*, Subcommittee SC 24, *Conditioning atmospheres and physical tests for textile fabrics*.

Introduction

It is well known that developing a standardized test method is not always an easy task. Most of the effort involves going through lots of details and trying to reach agreement between all the parties involved. As a consequence, it is wise to also dedicate part of the job to define what level of reliability the result of the standardized test method will have once it is applied.

The participation of interested laboratories is welcome, possibly those having a delegate in the commission in charge of developing the standardized test method.

Following this consideration, the aim of this Technical Report is to supply guidelines in case there is an intention to evaluate the uncertainty of that standardized test method by carrying out interlaboratory tests.

Textiles and textile products — Guidelines on the determination of the precision of a standard test method by interlaboratory trials

1 Scope

This Technical Report can be applied to textiles and textile products and is concerned only with test methods which operate in a continuous scale to yield a single numerical figure as the test result. However, this single figure can be the outcome of a calculation from a set of measurements.

The distribution of test results is required to be unimodal and is assumed to be normal. With non-Gaussian distributions, other evaluation procedures will be necessary.

It does not cover methods which yield discrete values, 'pass/fail' (go/no go) type results, (accept/reject) tests or where a ranking scheme is in operation.

2 Normative references

The following referenced documents are indispensable for the application 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 3534-1, *Statistics — Vocabulary and symbols — Part 1: General statistical terms and terms used in probability*

ISO 5725-2, *Accuracy (trueness and precision) of measurement methods and results — Part 2: Basic method for the determination of repeatability and reproducibility of a standard measurement method*

ISO 5725-6, *Accuracy (trueness and precision) of measurement methods and results — Part 6: Use in practice of accuracy values*

3 Terms and definitions

For the purposes of this document, the terms and definitions in ISO 3534-1, ISO 5725-2 and ISO 5725-6 and the following apply.

3.1
observed value
value of a characteristic obtained as a result of a single observation

3.2
test results
value of a characteristic obtained by carrying out a specified test method

NOTE The test method should specify that a number of individual observations to be made and their average and other appropriate function (such as the median and the indication of the dispersion measured by a standard deviation) be reported as the test result.