STANDARD **9237**

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Textiles — Determination of the permeability of fabrics to air

Textiles — Détermination de la perméabilité à l'air des étoffes

Reference number
ISO 9237:1995(E)

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.

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.

International Standard ISO 9237 was prepared by Technical Committee ISO/TC 38, *Textiles*.

Annexes A and B of this International Standard are for information only.

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Textiles — Determination of the permeability of fabrics to air

1 Scope

This International Standard describes a method for measuring the permeability of fabrics to air and is applicable to most types of fabrics, including industrial fabrics for technical purposes, nonwovens and made-up textile articles that are permeable to air.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 48:1994, *Rubber, vulcanized or thermoplastic — Determination of hardness (hardness between 10 IRHD and 100 IRHD).*

ISO 139:1973, *Textiles — Standard atmospheres for conditioning and testing.*

ISO 10012-1:1992, *Quality assurance requirements for measuring equipment — Part 1: Metrological confirmation system for measuring equipment.*

3 Definition

For the purposes of this International Standard, the following definition applies.

3.1 air permeability: Velocity of an air flow passing perpendicularly through a test specimen under specified conditions of test area, pressure drop and time.

4 Principle

The rate of flow of air passing perpendicularly through a given area of fabric is measured at a given pressure difference across the fabric test area over a given time period.

5 Sampling

Select samples either in accordance with the procedure laid down in the material specification for the fabric, or as agreed between the interested parties.

In the absence of specification, follow the example of sampling given in annex B.

6 Atmospheres for conditioning and testing

The atmospheres for preconditioning, conditioning and testing shall be as specified in ISO 139.

7 Apparatus

Metrological confirmation of the test apparatus shall be carried out in accordance with ISO 10012-1.

7.1 Circular specimen holder, with an orifice allowing the test to be carried out on an area of 5 cm^2, 20 cm^2, 50 cm^2 or 100 cm^2.

The tolerance on the test area shall not exceed $\pm$ 0,5 %.

NOTE 1 Adequate support of the test specimen, particularly for large test surfaces, is recommended.

7.2 Means for clamping, to secure the specimen without distortion.

NOTE 2 Care should be taken to prevent leakage of air