
**Textiles — Test methods for
nonwovens —**

Part 15:
Determination of air permeability

Textiles — Methodes d'essai pour nontissés —

Partie 15: Détermination de la perméabilité à l'air



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Foreword

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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.

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 9073-15 was prepared by Technical Committee ISO/TC 38, *Textiles*.

ISO 9073 consists of the following parts, under the general title *Textiles — Test methods for nonwovens*:

- *Part 1: Determination of mass per unit area*
- *Part 2: Determination of thickness*
- *Part 3: Determination of tensile strength and elongation*
- *Part 4: Determination of tear resistance*
- *Part 6: Absorption*
- *Part 7: Determination of bending length*
- *Part 8: Determination of liquid strike-through time (simulated urine)*
- *Part 9: Evaluation of drapability including drape coefficient*
- *Part 10: Lint and other particles generation in the dry state*
- *Part 11: Run-off*
- *Part 12: Demand absorbency*
- *Part 13: Repeated liquid strike-through time*
- *Part 14: Coverstock wetback*
- *Part 15: Determination of air permeability*
- *Part 16: Determination of resistance to penetration by water (hydrostatic pressure)*
- *Part 17: Determination of water penetration (spray impact)*
- *Part 18: Determination of breaking strength and elongation of nonwoven materials using the grab tensile test*

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Textiles — Test methods for nonwovens —

Part 15:

Determination of air permeability

1 Scope

This part of ISO 9073 specifies a method of measuring the flow of air passing perpendicularly through a given area of a fabric.

This test method applies to most nonwovens, such as laminates, which are treated or untreated. They may have either a low- or high-basis weight.

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 139, *Textiles — Standard atmospheres for conditioning and/or testing*

ISO 186, *Paper and board — Sampling to determine average quality*

ISO 10012:2003, *Measurement management systems — Requirements for measurement processes and measuring equipment*

3 Terms and definitions

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

3.1

air permeability

velocity of an air flow passing perpendicularly through a test specimen under a prescribed air pressure differential over a certain time period

NOTE Air permeability is expressed in litres per square centimetre per second ($l/cm^2 \cdot s$), or any other equivalent unit.

4 Principle

The 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 period of time.