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Thermal performance in the built environment — Determination of air permeance of building materials

Performance thermique en environnement bâti — Détermination de la perméance à l'air des matériaux de construction

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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web 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 163, *Thermal performance and energy use in the built environment*, Subcommittee SC 1, *Test and measurement methods*.

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Introduction

This International Standard contains the requirements for testing various building materials to determine their suitability to be used as an air barrier material.

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Thermal performance in the built environment — Determination of air permeance of building materials

1 Scope

This International Standard specifies the equipment and procedures to determine the air permeance of building materials at various pressure differentials and then assigning an air permeance rate at a reference pressure differential rate (ΔP) of 75 Pa.

This method is intended for testing materials independent of a substrate using a 1 m × 1 m specimen size. The results of this test method can be used to determine whether a material qualifies to function as an air barrier material.

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 7345, *Thermal insulation — Physical quantities and definitions*

ISO 9229, *Thermal insulation — Vocabulary*

ISO 12576-1, *Thermal insulation — Insulating materials and products for buildings — Conformity control systems — Part 1: Factory-made products*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 7345 and ISO 9229 and the following apply.

3.1
air permeance
rate of air flow (L/s), per unit area (m^2) and per unit static pressure differential (Pa)

4 Sampling and conformity control

The procedures described in ISO 12576-1 shall be applied for the purposes of sampling and conformity control.

5 Test specimens

5.1 Number

The number of test specimens shall be five.

5.2 Dimensions

The test specimens shall be 1,2 m × 1,2 m. Where the manufactured product is less than 1,2 wide, the length shall be increased to provide the same area.

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