

Hygrothermal performance of building materials and products — Determination of hygroscopic sorption properties

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British Standard

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National foreword

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- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN ISO title page, pages 2 to 17 and a back cover.

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English version

**Hygrothermal performance of building materials and products -
Determination of hygroscopic sorption properties (ISO
12571:2000)**

Performance hygrothermique des matériaux et produits
pour le bâtiment - Détermination des propriétés de sorption
hygroscopique (ISO 12571:2000)

Wärme- und feuchtetechnisches Verhalten von Baustoffen
und Bauprodukten - Bestimmung der hygroskopischen
Sorptionseigenschaften (ISO 12571:2000)

This European Standard was approved by CEN on 20 May 1999.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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Foreword

The text of EN ISO 12571:2000 has been prepared by Technical Committee CEN/TC 89 "Thermal performance of buildings and building components", the secretariat of which is held by SIS, in collaboration with Technical Committee ISO/TC 163 "Thermal insulation".

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2000, and conflicting national standards shall be withdrawn at the latest by December 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

This standard is one of a series of standards, which specify test methods for the thermal and moisture related properties of building materials and products.

1 Scope

This standard specifies two alternative methods for determining hygroscopic sorption properties of porous building materials and products:

- a) using desiccators and weighing cups (desiccator method);
- b) using a climatic chamber (climatic chamber method).

The desiccator method is the reference method.

The standard does not specify the method for sampling.

The methods specified in this standard can be used to determine the moisture content of a sample in equilibrium with air at a specific temperature and humidity.

2 Normative reference

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, latest edition of the publication referred to applies.

EN ISO 9346	Thermal insulation - Mass transfer - Physical quantities and definitions (ISO 9346)
EN ISO 12570	Hygrothermal performance of building materials and products - Determination of moisture content by drying at elevated temperature (ISO 12570)

3 Definitions, symbols and units

3.1 Definitions

For the purposes of this standard, the definitions given in EN ISO 9346 and the following apply:

3.1.1 hygroscopic sorption

exchange of water vapour between ambient air and a porous material until the point of equilibrium is reached

3.1.2 moisture content mass by mass

mass of evaporable water divided by mass of dry material

3.1.3 moisture content volume by volume

volume of evaporable water divided by volume of dry material