Irish Standard
I.S. EN ISO 12571:2021&LC:2021

Hygrothermal performance of building materials and products - Determination of hygroscopic sorption properties (ISO 12571:2021)

I.S. EN ISO 12571:2021&LC:2021

Incorporating amendments/corrigenda/National Annexes issued since publication:

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National Foreword

I.S. EN ISO 12571:2021&LC:2021 is the adopted Irish version of the European Document EN ISO 12571:2021, Hygrothermal performance of building materials and products - Determination of hygroscopic sorption properties (ISO 12571:2021)

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In line with international standards practice the decimal point is shown as a comma (,) throughout this document.

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Correction Notice

Reference: **EN ISO 12571:2021**

Title: Hygrothermal performance of building materials and products - Determination of hygroscopic sorption properties (ISO 12571:2021)

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Brussels, 2021-12-22

Please include the following minor editorial correction(s) in the document related to:

the following language version(s) :
- ☒ English
- ☒ French
- ☐ German

for the following procedure :
- ☐ PQ/UQ
- ☐ Enquiry
- ☐ 2nd Enquiry
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- ☐ 2nd Parallel Formal Vote
- ☐ UAP
- ☐ TC Approval
- ☐ 2nd TC Approval
- ☐ Publication
- ☒ Parallel Publication

It has been brought to our attention that this document, issued on 2021-11-24, requires modification.

Incorrect ISO/TC reference

Please find enclosed the updated English and French version.

We apologise for any inconvenience this may cause.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 12571

November 2021

ICS 91.100.01

Supersedes EN ISO 12571:2013

English Version

Hygrothermal performance of building materials and products - Determination of hygroscopic sorption properties (ISO 12571:2021)

Performance hygrothermique des matériaux et produits pour le bâtiment - Détermination des propriétés de sorption hygroscopique (ISO 12571:2021)

Wärme- und feuchtetechnisches Verhalten von Baustoffen und Bauprodukten - Bestimmung der hygroskopischen Sorptionseigenschaften (ISO 12571:2021)

This European Standard was approved by CEN on 25 October 2021.

This European Standard was corrected and reissued by the CEN-CENELEC Management Centre on 22 December 2021.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN ISO 12571:2021) has been prepared by Technical Committee ISO/TC 163 "Thermal performance and energy use in the built environment" in collaboration with Technical Committee CEN/TC 89 “Thermal performance of buildings and building components” the secretariat of which is held by SIS.

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 May 2022, and conflicting national standards shall be withdrawn at the latest by May 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 12571:2013.

Any feedback and questions on this document should be directed to the users’ national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 12571:2021 has been approved by CEN as EN ISO 12571:2021 without any modification.

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I.S. EN ISO 12571:2021&LC:2021

INTERNATIONAL STANDARD

ISO 12571

Third edition
2021-11

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

Performance hygrothermique des matériaux et produits pour le bâtiment — Détermination des propriétés de sorption hygroscopique

Reference number
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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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Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 163, *Thermal performance and energy use in the built environment* Subcommittee SC 1, *Test and measurement methods,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 89, *Thermal performance of buildings and building components,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 12571:2013), which has been technically revised.

The main changes are as follows:

— Table A.1 was revised.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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

1 Scope

This document 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.

This document does not specify the method for sampling.

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

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 9346, *Hygrothermal performance of buildings and building materials — Physical quantities for mass transfer — Vocabulary*

ISO 12570, *Hygrothermal performance of building materials and products — Determination of moisture content by drying at elevated temperature*

3 Terms and definitions, symbols and units

For the purposes of this document, the terms and definitions given in ISO 9346 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1 Terms and definitions

3.1.1
equilibrium moisture content
moisture content of a porous material in equilibrium with the environment and the relative humidity of the ambient air, at a specified temperature

3.1.2
moisture content mass by mass
mass of evaporable water divided by mass of dry material