

STN	Tepelno-vlhkostné vlastnosti stavebných materiálov a výrobkov. Stanovenie priepustnosti vodnej pary. Misková metóda (ISO 12572: 2016).	STN EN ISO 12572 73 0595
------------	---	--

Hygrothermal performance of building materials and products - Determination of water vapour transmission properties - Cup method (ISO 12572:2016)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/17

Obsahuje: EN ISO 12572:2016, ISO 12572:2016

Oznámením tejto normy sa ruší
STN EN ISO 12572 (73 0595) z júla 2003

124169

Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, 2017
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 12572

August 2016

ICS 91.120.10

Supersedes EN ISO 12572:2001

English Version

Hygrothermal performance of building materials and products - Determination of water vapour transmission properties - Cup method (ISO 12572:2016)

Performance hygrothermique des matériaux et produits pour le bâtiment - Détermination des propriétés de transmission de la vapeur d'eau - Méthode de la coupelle (ISO 12572:2016)

Wärme- und feuchtetechnisches Verhalten von Baustoffen und Bauprodukten - Bestimmung der Wasserdampfdurchlässigkeit - Verfahren mit einem Prüfgefäß (ISO 12572:2016)

This European Standard was approved by CEN on 16 July 2016.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents

Page

European foreword.....	3
------------------------	---

European foreword

This document (EN ISO 12572:2016) 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 performance and energy use in the built environment”.

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 February 2017, and conflicting national standards shall be withdrawn at the latest by February 2017.

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

This document supersedes EN ISO 12572:2001.

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

Endorsement notice

The text of ISO 12572:2016 has been approved by CEN as EN ISO 12572:2016 without any modification.

Hygrothermal performance of building materials and products — Determination of water vapour transmission properties — Cup method

*Performance hygrothermique des matériaux et produits pour le
bâtiment — Détermination des propriétés de transmission de la
vapeur d'eau — Méthode de la coupelle*





COPYRIGHT PROTECTED DOCUMENT

© ISO 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

Foreword	v
1 Scope	1
2 Normative references	1
3 Terms, definitions, symbols, units and subscripts	1
3.1 Terms and definitions	1
3.2 Symbols and units	2
3.3 Subscripts	3
4 Principle	3
5 Apparatus	3
6 Test specimens	4
6.1 General principles for preparation of test specimens	4
6.2 Dimensions of test specimens	4
6.2.1 Shape and fit	4
6.2.2 Exposed area	4
6.2.3 Thickness of test specimens	4
6.3 Number of test specimens	5
6.4 Conditioning of test specimens	5
6.5 Testing low resistance specimens	5
7 Procedure	5
7.1 Test conditions	5
7.2 Preparation of specimen and test assembly	7
7.3 Test procedure	7
8 Calculation and expression of results	8
8.1 Mass change rate	8
8.2 Density of water vapour flow rate	9
8.3 Water vapour permeance	9
8.4 Water vapour resistance	10
8.5 Water vapour permeability	10
8.6 Water vapour resistance factor	10
8.7 Water vapour diffusion-equivalent air layer thickness	11
9 Accuracy of measurement	11
9.1 General	11
9.2 Specimen area	11
9.3 Specimen thickness	11
9.4 Sealants	12
9.5 Weighing precision	12
9.6 Control of environmental conditions	12
9.7 Variations in barometric pressure during test	12
10 Test report	12
Annex A (normative) Methods suitable for self-supporting materials	14
Annex B (normative) Methods suitable for loose fills	16
Annex C (normative) Methods suitable for membranes and foils	18
Annex D (normative) Methods suitable for mastics and sealants	19
Annex E (normative) Methods suitable for paint, varnishes, etc.	21
Annex F (normative) Correction for the effect of a masked edge of a specimen	22
Annex G (normative) Correction for resistance of air layers	24

Annex H (normative) Method for calculating the water vapour resistance of the air layer in the cup	25
Annex I (informative) Weighing repeatability, weighing interval and specimen size needed to achieve desired accuracy	26
Annex J (informative) Conversion table for water vapour transmission units.....	27
Bibliography	28

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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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

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 World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html

ISO 12572 was prepared by the European Committee Standardization (CEN) Technical Committee CEN/TC 89, *Thermal performance of buildings and building components*, in collaboration with ISO Technical Committee ISO/TC 163, *Thermal performance and energy use in the built environment*, Subcommittee SC 1, *Test and measurement methods*, in accordance with the agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 12572:2001), which has been technically revised with the following changes:

- addition of insulation materials in the Scope;
- addition of e) humidity chamber in [Clause 5](#);
- addition of requirements regarding thickness of test specimen to measure the permeability of core materials in [6.2.3](#);
- change of specimen area size in [6.3](#);
- addition of requirements for storage time and relative humidity for condition D in [6.4](#);
- new clause with requirements in [6.5](#);
- change of requirements for temperature and relative humidity for test conditions in [7.1](#);
- change of the calculation of mass change rate in [8.1](#);
- removal of 9.8.

Hygrothermal performance of building materials and products — Determination of water vapour transmission properties — Cup method

1 Scope

This document specifies a method based on cup tests for determining the water vapour permeance of building products and the water vapour permeability of building materials under isothermal conditions. Different sets of test conditions are specified.

The general principles are applicable to all hygroscopic and non-hygroscopic building materials and products, including insulation materials and including those with facings and integral skins. Annexes give details of test methods suitable for different material types.

The results obtained by this method are suitable for design purposes, production control and for inclusion in product specifications.

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.

There are no normative references in this document.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN