

**Thermal performance of windows and doors
- Determination of thermal transmittance by
hot box method - Part 1: Complete windows
and doors**

Thermal performance of windows and doors -
Determination of thermal transmittance by hot box
method - Part 1: Complete windows and doors

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 12567-1:2001 sisaldab Euroopa standardi EN ISO 12567-1:2000 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 16.02.2001 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 12567-1:2001 consists of the English text of the European standard EN ISO 12567-1:2000.</p> <p>This document is endorsed on 16.02.2001 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p>Käsitlusala:</p> <p>This part of EN ISO 12567 specifies a metho to measure the thermal transmittance of a door or window system. This includes all effects of frames, sashes, shutters, door leaves and fittings.</p>	<p>Scope:</p> <p>This part of EN ISO 12567 specifies a metho to measure the thermal transmittance of a door or window system. This includes all effects of frames, sashes, shutters, door leaves and fittings.</p>
---	---

ICS 91.060.50, 91.120.10

Võtmesõnad:

English version

**Thermal performance of windows and doors – Determination
of thermal transmittance by hot box method**

**Part 1: Complete windows and doors
(ISO 12567-1 : 2000)**

Isolation thermique des fenêtres et
portes – Détermination de la trans-
mission thermique par la méthode à
la boîte chaude – Partie 1: Fenêtres
et portes complètes
(ISO 12567-1 : 2000)

Wärmetechnisches Verhalten von
Fenstern und Türen – Bestimmung
des Wärmedurchgangskoeffizienten
mittels des Heizkastenverfahrens –
Teil 1: Komplette Fenster und Türen
(ISO 12567-1 : 2000)

This European Standard was approved by CEN on 2000-09-01.

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.

The European Standards exist 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.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

International Standard

ISO 12567-1 : 2000 Thermal performance of windows and doors – Determination of thermal transmittance by hot box method – Part 1: Complete windows and doors,

which was prepared by ISO/TC 163 'Thermal insulation' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 89 'Thermal performance of buildings and building components', the Secretariat of which is held by SIS, as a European Standard.

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

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 12567-1 : 2000 was approved by CEN as a European Standard without any modification.

Contents

Page

Foreword	2
Introduction	3
1 Scope	3
2 Normative references	3
3 Terms, definitions and symbols	4
4 Principle	5
5 Requirements for test specimens and apparatus	9
6 Test procedure	13
7 Test report	17
Annex A (normative) Environmental temperatures	18
Annex B (normative) Linear thermal transmittance of the edge zone	22
Annex C (informative) Design of calibration transfer standard (CTS)	25
Annex D (informative) Example of calibration test and measurement of window specimen	29
Annex E (informative) Analytical calibration procedure using heat balance equations	40
Bibliography	42

Introduction

The method specified in this part of ISO 12567 is based on ISO 8990. It is designed to provide both standardized tests, which enable a fair comparison of different products to be made, and specific tests on products for practical application purposes. The former specifies standardized specimen sizes and applied test criteria.

The determination of the aggregate thermal transmittance is performed for conditions which are similar to the actual situation of the window and door in practice.

1 Scope

This part of ISO 12567 specifies a method to measure the thermal transmittance of a door or window system. This includes all effects of frames, sashes, shutters, door leaves and fittings.

It does not include:

- edge effects occurring outside the perimeter of the specimen;
- energy transfer due to solar radiation on the specimen;
- effects of air leakage through the specimen;
- roof windows and projecting products, where the glass layer projects beyond the cold side roof surface.

NOTE For roof windows and projecting units, the procedure given in ISO 12567-2 (under preparation, see Bibliography [4]) should be used.

Annex A gives methods for the calculation of environmental temperatures.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 12567. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 12567 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 7345, *Thermal insulation — Physical quantities and definitions*.

ISO 8301, *Thermal insulation — Determination of steady-state thermal resistance and related properties — Heat flow meter apparatus*.

ISO 8302, *Thermal insulation — Determination of steady-state thermal resistance and related properties — Guarded hot plate apparatus*.

ISO 8990:1994, *Thermal insulation — Determination of steady-state thermal transmission properties — Calibrated and guarded hot box*.

ISO 9288, *Thermal insulation — Heat transfer by radiation — Physical quantities and definitions*.