

**Thermal performance of windows and doors  
- Determination of thermal transmittance by  
hot box method - Part 2: Roof windows and  
other projecting windows**

Thermal performance of windows and doors -  
Determination of thermal transmittance by hot box  
method - Part 2: Roof windows and other projecting  
windows

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 12567-2:2005 sisaldab Euroopa standardi EN ISO 12567-2:2005 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 28.12.2005 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 12567-2:2005 consists of the English text of the European standard EN ISO 12567-2:2005.</p> <p>This document is endorsed on 28.12.2005 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><b>Käsitlusala:</b> This part of ISO 12567 specifies a method to measure the thermal transmittance of roof windows and projecting windows.</p>	<p><b>Scope:</b> This part of ISO 12567 specifies a method to measure the thermal transmittance of roof windows and projecting windows.</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 2: Roof windows and other projecting windows (ISO 12567-2:2005)**

Isolation thermique des fenêtres et portes - Détermination de la transmission thermique par la méthode à la boîte chaude - Partie 2: Fenêtres de toit et autres fenêtres en saillie (ISO 12567-2:2005)

Wärmetechnisches Verhalten von Fenstern und Türen - Bestimmung des Wärmedurchgangskoeffizienten des Heizkastenverfahrens - Teil 2: Dachflächenfenster und andere auskragende Fenster (ISO 12567-2:2005)

This European Standard was approved by CEN on 14 October 2005.

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.

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



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

**Management Centre: rue de Stassart, 36 B-1050 Brussels**

## Foreword

This document (EN ISO 12567-2:2005) has been prepared by Technical Committee ISO/TC 163 "Thermal insulation" 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 April 2006, and conflicting national standards shall be withdrawn at the latest by April 2006.

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

## Endorsement notice

The text of ISO 12567-2:2005 has been approved by CEN as EN ISO 12567-2:2005 without any modifications.

---

---

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

**Part 2:  
Roof windows and other projecting  
windows**

*Isolation thermique des fenêtres et portes — Détermination de la  
transmission thermique par la méthode à la boîte chaude —*

*Partie 2: Fenêtres de toit et autres fenêtres en saillie*



**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

© ISO 2005

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

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](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Principle</b> .....	<b>2</b>
<b>5 Requirements for test specimens and apparatus</b> .....	<b>2</b>
5.1 General.....	2
5.2 Test specimen location.....	2
5.3 Calibration panels.....	4
5.4 Baffle position.....	5
<b>6 Procedure</b> .....	<b>6</b>
6.1 General.....	6
6.2 Calibration measurements.....	6
6.3 Specimen measurements.....	6
6.4 Expression of results.....	6
<b>7 Test report</b> .....	<b>6</b>
<b>Annex A (normative) Environmental temperature</b> .....	<b>7</b>
<b>Annex B (normative) Linear thermal transmittance of the edge zone</b> .....	<b>11</b>
<b>Annex C (informative) Example of calibration test and measurement of a roof window specimen</b> .....	<b>16</b>
<b>Bibliography</b> .....	<b>25</b>

## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 12567-2 was prepared by Technical Committee ISO/TC 163, *Thermal performance and energy use in the built environment*, Subcommittee SC 1, *Test and measurement methods*.

ISO 12567 consists of the following parts, under the general title *Thermal performance of windows and doors — Determination of thermal transmittance by hot box method*:

- *Part 1: Complete windows and doors*
- *Part 2: Roof windows and other projecting windows.*



## Introduction

This part of ISO 12567 should be read together with ISO 12567-1:2000 *Thermal performance of windows and doors — Determination of thermal transmittance by hot box method — Part 1: Complete windows and doors*. These two parts were jointly developed by ISO and CEN. They are designed to provide standardised thermal transmittance test values, to enable product comparisons to be made. ISO 12567-1:2000 specifies standardised specimen sizes and applied test criteria.

It is recognised that the thermal performance of products will vary with heat flow direction and so it is preferable to test these products at the orientation in which they will be installed. However, as there are only a few hot boxes capable of carrying out such measurements, this measurement procedure specifies that it is acceptable to measure the thermal transmittance of roof windows mounted vertically to facilitate the fair comparison of products.

It should be noted that measurements with the specimen mounted vertically will generally produce  $U$ -values lower than those measured at other orientations with heat flow up. An alternative to measuring at the actual orientation that will be used in practice is to carry out calculations of convective and radiant heat transfer using the procedures specified in ISO 15099, ISO 10077-1, ISO 10077-2 and EN 673.



# Thermal performance of windows and doors — Determination of thermal transmittance by hot box method —

## Part 2: Roof windows and other projecting windows

### 1 Scope

This part of ISO 12567 specifies a method to measure the thermal transmittance of roof windows and projecting windows.

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.

### 2 Normative references

The following referenced documents are indispensable for the application 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 7345:1987, *Thermal insulation — Physical quantities and definitions*

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

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

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 7345 and ISO 12567-1 and the following apply.

#### 3.1

##### **projecting windows**

product, where any glazing layer projects beyond the outside surface of the building envelope