

# SLOVENSKI STANDARD SIST EN ISO 12567-2:2006

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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) **iTeh STANDARD PREVIEW** 

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Wärmetechnisches Verhalten von Fenstern und Türen - Bestimmung des Wärmedurchgangskoeffizienten mittels des Heizkastenverfahrens - Teil 2: Dachflächenfenster und andere auskragende Fenster (ISO 12567-2:2005) a0a72984a0f3/sist-en-iso-12567-2-2006

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

Ta slovenski standard je istoveten z: EN ISO 12567-2:2005

## <u>ICS:</u>

91.060.50	Vrata in okna
91.120.10	Toplotna izolacija stavb

Doors and windows Thermal insulation

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en

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## SIST EN ISO 12567-2:2006

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

# EN ISO 12567-2

October 2005

ICS 91.120.10; 91.060.50

**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.

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

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Ref. No. EN ISO 12567-2:2005: E

#### EN ISO 12567-2:2005 (E)

## 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.

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## SIST EN ISO 12567-2:2006

# INTERNATIONAL STANDARD

# ISO 12567-2

First edition 2005-10-15

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

Part 2:

Roof windows and other projecting windows

iTeh STANDARD PREVIEW

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

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Reference number ISO 12567-2:2005(E)

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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.

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

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— Part 2: Roof windows and other projecting windows. a0a/2984a013/sist-en-iso-12567-2-2006

## 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.

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# 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 **PREVIEW**
- effects of air leakage through (hetspecimenrds.iteh.ai)

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## 2 Normative references ds.iteh.ai/catalog/standards/sist/80719197-f030-4de5-97ed-

a0a72984a0f3/sist-en-iso-12567-2-2006

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

3.2

roof windows

any framed glazed product installed in a sloped or horizontal building envelope

NOTE 1 Roof windows are treated as projecting windows.

NOTE 2 See also Reference [1] in Bibliography.

## 4 Principle

This part of ISO 12567 is based on a measurement procedure for roof windows and other projecting windows, in accordance with the procedure specified in ISO 12567-1:2000, except for the deviations specified below:

- the window is installed in the surround panel flush to the cold side (insert- or kerb-mounted as shown in Figure 1), to reflect the installation in practice;
- the calibration procedure and the specimen tests shall be carried out at the same orientation;
- for practical reasons, vertical mounting of the specimen is acceptable for product declaration purpose.

Although the evaluation of the thermal performance of these types of products will be made for a variety of reasons, it is important that when measurements are made for purposes of product comparison, they are carried out at the same orientation.

NOTE For building load or energy calculations, the value may be corrected for the effect of the sloped glazing position using suitable national procedures. (standards.iteh.ai)

## 5 Requirements for test specimens and apparatus<sup>2006</sup>

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## 5.1 General

The construction and operation of the apparatus shall comply with the requirements specified in ISO 8990:1994 except where modified by ISO 12567-1:2000 and this document.

## 5.2 Test specimen location

The test specimen shall be mounted in the surround panel aperture according to the manufacturer's instructions. If the method of installation of the roof window in the hot box cannot be unambiguously determined from the manufacturer's installation instructions, the window shall be installed as shown in Figure 1. Flashings and/or kerb (curb) shall be included as the windows are normally installed (see Figure 1).

NOTE Kerb and curb are synonymous.