Building materials and products - Procedure for determining declared and design thermal values

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EESTI STANDARDI EESSÕNA **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN ISO 10456:2000 sisaldab Euroopa standardi EN ISO 10456:1999 ingliskeelset teksti. Käesolev dokument on jõustatud 16.06.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. Standard on kättesaadav Eesti standardiorganisatsioonist.	This Estonian standard EVS-EN ISO 10456:2000 consists of the English text of the European standard EN ISO 10456:1999. This document is endorsed on 16.06.2000 with the notification being published in the official publication of the Estonian national standardisation organisation. The standard is available from Estonian standardisation organisation.

Käsitlusala: This standard specifies methods for the determination of declared and design thermal values for thermally homogeneous building materials and products. It also gives procedures to convert values obtained under one set of conditions to those valid for another set of conditions. These procedures are valid for design ambient temperatures between -30°C and +60°C. Conversion coefficients for temperature, valid for mean temperatures between 0°C and 30°C, and moisture are given in annex A.	**Scope:** This standard specifies methods for the determination of declared and design thermal values for thermally homogeneous building materials and products. It also gives procedures to convert values obtained under one set of conditions to those valid for another set of conditions. These procedures are valid for design ambient temperatures between -30°C and +60°C. Conversion coefficients for temperature, valid for mean temperatures between 0°C and 30°C, and moisture are given in annex A.

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Võtmesõnad: buildings, construction materials, conversion, design, determination, test results, tests, thermal conductivity, thermal insulation, thermal properties, thermal resistance

EUROPEAN STANDARD
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EN ISO 10456

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English version

Building materials and products

Procedures for determining declared and design thermal values
(ISO 10456 : 1999)

Matériaux et produits du bâtiment – Procédures pour la détermination des valeurs thermiques déclarées et utiles (ISO 10456 : 1999)

Baustoffe und -produkte – Verfahren zur Bestimmung der wärmeschutztechnischen Nenn- und Bemessungswerte (ISO 10456 : 1999)

This European Standard was approved by CEN on 1999-09-05.

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

Ref. No. EN ISO 10456 : 1999 E

Foreword

International Standard

ISO 10456 : 1999 Building materials and products – Procedures for determining declared and design thermal values,

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 June 2000 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 10456 : 1999 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in Annex ZA (normative).

Contents

1 Scope

This International Standard specifies methods for the determination of declared and design thermal values for thermally homogeneous building materials and products.

It also gives procedures to convert values obtained under one set of conditions to those valid for another set of conditions. These procedures are valid for design ambient temperatures between –30 °C and +60 °C.

Conversion coefficients for temperature, valid for mean temperatures between 0 °C and 30 °C, and moisture are given in annex A.

This International Standard does not give any conversion coefficients for the effect of ageing or other effects like convection or settlement.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard 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 8301:1991, *Thermal insulation — Determination of steady-state specific thermal resistance and related properties — Heat flow meter apparatus.*

ISO 8302:1991, *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.*

3 Terms, definitions and symbols

3.1 Definitions

For the purposes of this International Standard, the following terms and definitions apply.

3.1.1
declared thermal value
expected value of a thermal property of a building material or product

— assessed from measured data at reference conditions of temperature and humidity;

— given for a stated fraction and confidence level;

— corresponding to a reasonable expected service lifetime under normal conditions