INTERNATIONAL STANDARD

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Thermal insulation products for building equipment and industrial installations — Determination of declared thermal conductivity

Produits isolants thermiques pour l'équipement du bâtiment et les installations industrielles — Détermination de la conductivité thermique déclarée

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Foreword

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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 13787 was prepared by the European Committee for Standardization (CEN) in collaboration with Technical Committee ISO/TC 163, *Thermal performance and energy use in the built environment*, Subcommittee SC 2, *Calculation methods*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Throughout the text of this document, read "...this European Standard..." to mean "...this International Standard...".

Contents

Foreword

This document (EN ISO 13787:2003) 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of an identical text or by endorsement, at the latest by September 2003, and conflicting national standards shall be withdrawn at the latest by September 2003.

Annexes A, B and C are informative.

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

Introduction

This standard gives the procedure for the determination of the declared thermal conductivity of thermal insulation materials and products, which are used for the insulation of building equipment and industrial installations.

For this area of application the thermal conductivity values are usually expressed over a wide range of temperatures.

This standard describes the procedure necessary for the determination of the thermal conductivity values, which the manufacturer shall declare.

The values are expressed in the form of a curve or in tabular form which shows thermal conductivity as a function of temperature.

1 Scope

This standard establishes the procedure for the determination and verification of the declared thermal conductivity as a function of temperature of thermal insulating materials and products used for the insulation of building equipment and industrial installations.

The informative annex B also gives an optional method for establishing the thermal conductivity curve or table from measured values.

The standard is not applicable to thermal insulating products used in building envelopes. For the procedures which are used for these products, see ISO 10456, "*Building materials and products – Procedures for determining declared and design thermal values*".

2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 12667	*Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Products of high and medium thermal resistance.*
EN ISO 7345:1995	*Thermal insulation - Physical quantities and definitions (ISO 7345:1987).*
EN ISO 8497	*Thermal insulation - Determination of steady-state thermal transmission properties of thermal insulation for circular pipes (ISO 8497:1994).*
prEN ISO 9229:1997	*Thermal insulation - Definitions of terms (ISO/DIS 9229:1997).*
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.*