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Second edition
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Thermal performance of buildings — Transmission and ventilation heat transfer coefficients — Calculation method

*Performance thermique des bâtiments — Coefficients de transfert
thermique par transmission et par renouvellement d'air — Méthode de
calcul*



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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 13789 was prepared by Technical Committee ISO/TC 163, *Thermal performance and energy use in the built environment*, Subcommittee SC 2, *Calculation methods*.

This second edition cancels and replaces the first edition (ISO 13789:1999) which has been technically revised.

A summary of the principal changes is given below.

- The title has been replaced by "...Transmission and ventilation heat transfer coefficients — ...". This is because a ventilation coefficient has been added (see Clause 5) and "loss" is replaced by "transfer" to allow for cases of cooling.
- Consequential changes have also been made in the Introduction, Scope and elsewhere throughout this International Standard.
- In Clause 2, reference is to "ISO" rather than to "EN ISO" where applicable. ISO 10077-2 has been added.
- In 4.3, the text has been clarified and Note 1 added.
- 4.4 and 4.5 have been amended to say that heat transfer to/from unheated spaces via the ground is disregarded.
- Clause 5 This is a new clause, taken unchanged from 7.3 of ISO 13790. The intention is that 7.3 of ISO 13790 should be deleted when that International Standard is revised and replaced by a reference to ISO 13789.
- Annex C is a new annex, taken unchanged from Annex G of ISO 13790. The intention is that Annex G of ISO 13790 should be deleted when that International Standard is revised.

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Introduction

The aims of this International Standard are

- a) to clarify the international market through the harmonized definition of intrinsic characteristics of buildings;
- b) to help in judging compliance with regulations;
- c) to provide input data for calculation of annual energy use for heating or cooling buildings.

The result of the calculations can be used as input for calculation of annual energy use and heating or cooling load of buildings, for expressing the thermal transmission and/or ventilation characteristics of a building or for judging compliance with specifications expressed in terms of transmission and/or ventilation heat transfer coefficients.

This International Standard provides the means (in part) to assess the contribution that building products and services make to energy conservation and to the overall energy performance of buildings.