INTERNATIONAL STANDARD

ISO 7345

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
ORGANISATION INTERNATIONALE DE NORMALISATION
МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Thermal insulation — Physical quantities and definitions

Isolation thermique — Grandeurs physiques et définitions

Reference number
ISO 7345 : 1987 (E)

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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7345 was prepared by Technical Committee ISO/TC 163, *Thermal insulation*.

This second edition cancels and replaces the first edition (ISO 7345 : 1985); clauses 0 and 3 are new.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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Thermal insulation — Physical quantities and definitions

0 Introduction

This International Standard forms part of a series of vocabularies related to thermal insulation.

The series will include

ISO 7345, *Thermal insulation — Physical quantities and definitions.*

ISO 9251, *Thermal insulation — Heat transfer conditions and properties of materials — Vocabulary.*

ISO 9346, *Thermal insulation — Mass transfer — Physical quantities and definitions.*

ISO 9229, *Thermal insulation — Thermal insulating materials and products — Vocabulary.* [1)]

ISO 9288, *Thermal insulation — Heat transfer by radiation — Physical quantities and definitions.* [1)]

1 Scope and field of application

This International Standard defines physical quantities used in the field of thermal insulation, and gives the corresponding symbols and units.

NOTE — Because the scope of this International Standard is restricted to thermal insulation, some of the definitions given in clause 2 differ from those given in ISO 31/4, *Quantities and units of heat*. To identify such differences an asterisk has been inserted before the term concerned.

2 Physical quantities and definitions

	Quantity	Unit
2.1 heat; quantity of heat	Q	J
2.2 heat flow rate: Quantity of heat transferred to or from a system divided by time: $\Phi = \frac{dQ}{dt}$	Φ	W
2.3 density of heat flow rate: Heat flow rate divided by area: $q = \frac{d\Phi}{dA}$	q	W/m^2

NOTE — The word "density" should be replaced by "surface density" when it may be confused with "linear density" (2.4).

1) In preparation.