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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 17370-2015

**Determination of stead-state thermal transmissivity of a moist
building material
(English Translation)**

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Foreword

This Standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This Standard replaces GB/T 17370-1998 Determination of stead-state thermal transmissivity of a moist building material. Compared with GB/T 17370-1998, in addition to editorial changes, the main technical changes are as follows.

- modified normative references (see Clause 2 of this Edition, Clause 2 of

1998 Edition);

- deleted the last paragraph of Clause 5; added note in 3.1 (see 3.1 NOTE of this Edition, 5.3 of 1998 Edition);

- modified the expression of term "hygroscopic range" (see 3.2 of this Edition, 3.2 of 1998 Edition);

- added Figure A.1 (see Annex A);

- modified Annex E as Bibliography (see Bibliography of this Edition, Annex E of 1998 edition).

This Standard uses translation method to make it identical with ISO 10051:1996 Thermal insulation - Moisture effects on heat transfer - Determination of thermal transmissivity of a moist material.

This Standard was proposed by China Building Materials Federation.

This Standard shall be under the jurisdiction of National Technical Committee on Insulation Material of Standardization Administration of China (SAC/TC 191).

The drafting organization of this Standard. Henan Building Materials Research and Design Institute Co., Ltd..

Main drafters of this Standard. Zhang Liping, Li Guowang, Xu Wenjie, Cao Xiaorun, Jiang Rui, Wan Xindi, Fu Baozhou.

Version of standard substituted by this Standard is.

- GB/T 17370-1998.

Determination of steady-state thermal transmissivity of a moist building material

1 Scope

This Standard specifies a method to determine the thermal transmissivity of a moist material (λ^*) under steady-state moisture conditions, i.e. not affected by moisture movement. It is measured using standardized guarded hot plate and heat flow meter methods, at temperatures above 0°C. This material property is a function of the moisture content and does not represent the thermal performance of a material under service conditions. However, it can be used, together with knowledge of the moisture conditions in the material, to predict the practical thermal performance.

The use of λ^* , the distribution of moisture under service conditions and consequently the prediction of thermal performance under service conditions are outside the scope of this Standard. However, the moisture distribution under

service conditions should, where possible, be considered when $1'$ is determined.

Furthermore, transient methods of measurement are not included due to the difficulty involved in analyzing and interpreting the results of these methods.

2 Normative references

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.

GB/T 10294-2008 Thermal insulation - Determination of steady-state thermal resistance and related properties - Guarded hot plate apparatus (ISO 8302.1991, IDT)

GB/T 10295-2008 Thermal insulation-Determination of steady-state thermal resistance and related properties - Heat flow meter apparatus (ISO 8301.1991, IDT)

ISO 6946-1.1986 Thermal insulation - Calculation methods - Part 1. Steady state thermal properties of building components and building elements

ISO 7345.1987 Thermal insulation - Physical quantities and definitions

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