

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS A 1470-1 : 2014

(JTCCM/JSA)

**Determination of water vapour
adsorption/desorption properties for
building materials — Part 1: Response
to humidity variation**

ICS 91.100.01

Reference number : JIS A 1470-1 : 2014 (E)

PROTECTED BY COPYRIGHT

26 S

A 1470-1 : 2014

Date of Establishment: 2002-03-20

Date of Revision: 2014-12-22

Date of Public Notice in Official Gazette: 2014-12-22

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

Technical Committee on Architecture

JIS A 1470-1 : 2014, First English edition published in 2016-02

Translated and published by: Japanese Standards Association
Mita MT Building, 3-13-12, Mita, Minato-ku, Tokyo, 108-0073 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

© JSA 2016

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

HT/HN

PROTECTED BY COPYRIGHT

Contents

| | Page |
|---|------|
| Introduction | 1 |
| 1 Scope | 1 |
| 2 Normative references | 1 |
| 3 Terms, symbols and units | 2 |
| 3.1 Terms and definitions | 2 |
| 3.2 Symbols and units | 2 |
| 4 Test specimens | 3 |
| 5 Test apparatus | 3 |
| 6 Setting of water vapour surface resistance | 5 |
| 7 Water vapour adsorption/desorption test method | 5 |
| 8 Calculation of results | 6 |
| 9 Test report | 9 |
| Annex A (normative) Measurement of water vapour surface resistance | 10 |
| Annex B (informative) Composition and test procedures of other test apparatus | 12 |
| Annex C (informative) Calculation procedure of water vapour infiltration coefficient | 15 |
| Annex JA (normative) Periodic water vapour adsorption/desorption test | 19 |
| Annex JB (informative) Comparison table between JIS and corresponding international Standard | 21 |
| Annex JC (informative) Comparison table between previous and current editions of this Standard on technically significant revisions | 32 |

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Japan Testing Center for Construction Materials (JTCCM)/ Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14. Consequently **JIS A 1470-1:2008** is replaced with this Standard.

This **JIS** document is protected by the Copyright Law.

Attention is drawn to the possibility that some parts of this Standard may conflict with patent rights, applications for a patent after opening to the public or utility model rights. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights, applications for a patent after opening to the public or utility model rights.

JIS A 1470 series consists of the following 2 parts under the general title “*Determination of water vapour adsorption/desorption properties for building materials*”:

Part 1 : Response to humidity variation

Part 2 : Response to temperature variation

Determination of water vapour adsorption/desorption properties for building materials — Part 1 : Response to humidity variation

Introduction

This Japanese Industrial Standard has been prepared based on the first edition of ISO 24353 published in 2003 with some modifications of the technical contents in order to reflect the actual situation in Japan.

The portions given sidelines or dotted underlines are the matters in which the contents of the corresponding International Standard have been modified. A list of modifications with the explanations is given in Annex JB. A comparison table between previous and current editions of this Standard on technically significant revisions is given in Annex JC.

1 Scope

This Standard specifies a test method for determining water vapour adsorption/desorption properties at daily cycle (1-hour adsorption, 12-hour desorption) mainly of building materials such as interior materials in response to humidity variation.

NOTE : The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 24353 : 2003 *Hygrothermal performance of building materials and products — Determination of moisture adsorption/desorption properties in response to humidity variation* (MOD)

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standards and JIS are IDT (identical), MOD (modified), and NEQ (not equivalent) according to ISO/IEC Guide 21-1.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions (including amendments) shall be applied.

JIS A 0202 *Thermal insulation — Vocabulary*

JIS A 1324 *Measuring method of water vapor permeance for building materials*

JIS Z 8704 *Temperature measurement — Electrical methods*

JIS Z 8806 *Humidity — Measurement methods*