

JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS A 1905-2 : 2015

**Performance test of sorptive
building materials for reducing
indoor air pollution with small
chamber — Part 2: Measurement of
capability for suppressing
formaldehyde emission**

ICS 13.040.20;71.040.40

Reference number : **JIS A 1905-2 : 2015 (E)**

A 1905-2 : 2015

Date of Establishment: 2007-02-01

Date of Revision: 2015-03-20

Date of Public Notice in Official Gazette: 2015-03-20

Investigated by: Japanese Industrial Standards Committee
Standards Board for ISO area
Technical Committee on Architecture

JIS A 1905-2:2015, 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

IH/AT

PROTECTED BY COPYRIGHT

Contents

	Page
Introduction.....	1
1 Scope.....	1
2 Normative references.....	1
3 Terms and definitions.....	2
4 Symbols and units.....	2
5 Principle.....	2
6 Apparatus.....	3
7 Test conditions.....	4
7.1 General.....	4
7.2 Temperature and relative humidity.....	4
7.3 Supply air quality and background concentration.....	5
7.4 Mass transfer coefficient.....	5
7.5 Area specific ventilation rate and air change rate.....	5
7.6 Formaldehyde emission source.....	6
8 Verification of test conditions.....	6
8.1 Monitoring of test conditions.....	6
8.2 Air tightness of chamber.....	6
8.3 Air change rate in test chamber.....	6
8.4 Efficiency of the internal test chamber air mixing.....	7
8.5 Recovery and sink effects.....	7
9 Preparation of chamber.....	7
10 Preparation of test specimens.....	7
11 Test method.....	8
11.1 General.....	8
11.2 Background concentration and travel blank.....	9
11.3 Placing the test specimen in the test chamber.....	9
11.4 Time intervals for measurement of test chamber concentration.....	9
11.5 Long-term reduction performance.....	9
11.6 Air sampling.....	10
11.7 Measurement of saturation mass per area.....	10
12 Determination of formaldehyde.....	10
13 Calculation of concentration reduction effect rate and expression of results.....	10

14	Test report	11
Annex A (informative)	Comparison table between previous and current editions of this Standard on technically significant revisions	13

Currently in preview, click buy full version

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 in accordance with the Industrial Standardization Law.

Consequently **JIS A 1905-2:2007** 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 1905 series consists of the following 2 parts under the general title "*Performance test of sorptive building materials of reducing indoor air pollution with small chamber*":

Part 1: Measurement of adsorption flux with supplying constant concentration of formaldehyde

Part 2: Measurement of capability for suppressing formaldehyde emission

Performance test of sorptive building materials of reducing indoor air pollution with small chamber— Part 2: Measurement of capability for suppressing formaldehyde emission

Introduction

This Japanese Industrial Standard was established in 2007. The purpose of this revision is to re-establish consistency with a closely related standard, **JIS A 1905-1**, which has been revised to harmonize with the corresponding **ISO Standard** (originally established based on **JIS A 1905-1**) and also to correspond to revisions and establishments of other related standards for ensuring overall consistency. The comparison table between previous and current editions of this Standard on technically significant revisions is given in Annex A.

No corresponding International Standard has been established at this point.

1 Scope

This Standard specifies a general laboratory test method for evaluating the concentration reduction performance of sorptive building materials via sorption or decomposition of formaldehyde in the indoor air of a building using the chamber specified in **JIS A 1901**. The method specified in this Standard employs formaldehyde emission material to determine the sorption flux.

It is applicable to building boards, wall papers, floor materials and coating materials, and not applicable to materials capable of decomposing formaldehyde by catalytic reaction in the presence of ultraviolet and visible rays.

2 Normative references

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

JIS A 1901 *Determination of the emission of volatile organic compounds and aldehydes by building products—Small chamber method*

JIS A 1902-1 *Determination of the emission of volatile organic compounds and aldehydes by building products—Sampling, preparation of test specimens and testing condition—Part 1: Boards, wallpaper and floor materials*

JIS A 1902-2 *Determination of the emission of volatile organic compounds and aldehydes by building products—Sampling, preparation of test specimens and testing condition—Part 2: Adhesives*

JIS A 1902-3 *Determination of the emission of volatile organic compounds and aldehydes by building products—Sampling, preparation of test specimens and testing condition—Part 3: Paints and coating materials*