



JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

---

**JIS A 9504** : 2024

(JTIA/JSA)

**Man made mineral fibre thermal insulation  
materials**

A 9504 : 2024

Date of Establishment: 1952-09-04

Date of Revision: 2024-09-20

Date of Public Notice in Official Gazette: 2024-09-20

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

Technical Committee on Architecture

---

JIS A 9504 : 2024, First English edition published in 2025-07

Translated and published by: Japanese Standards Association  
Mita Avanti, 3-11-28, 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 2025

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

SW

PROTECTED BY COPYRIGHT

## Contents

	Page
Introduction .....	1
1 Scope .....	1
2 Normative references .....	1
3 Terms and definitions .....	2
4 Classification .....	3
5 Quality .....	5
5.1 Characteristics .....	5
5.2 Dimensions .....	6
5.3 Appearance .....	8
6 Tests .....	8
6.1 Dimensions of board insulation, felt, wave insulation, lamella product and blanket .....	8
6.2 Density of board insulation, felt, wave insulation, lamella product and blanket .....	11
6.3 Dimensions, density and squareness of pipe insulation .....	12
6.4 Thermal conductivity .....	12
6.5 Temperature for 10 % shrinkage under heat and compression .....	13
6.6 Average thickness of fibre .....	13
6.7 Shot content .....	13
6.8 Formaldehyde emission characteristics .....	14
6.9 Appearance .....	15
7 Inspection .....	15
7.1 Classification of inspections and inspection items .....	16
7.2 Judgement criteria .....	16
8 Designation of products .....	16
9 Marking .....	17
Annex A (normative)      Measuring methods of dimensions, density and squareness of pipe insulation .....	18
Annex JA (normative)      Test method for determining the temperature for 10 % shrinkage under heat and compression .....	22
Annex JB (informative)      Example of defibration method .....	26
Annex JC (informative)      Comparison table between JIS and corresponding International Standard .....	28

Annex JD (informative)	List of technically significant revisions from the previous edition .....	34
------------------------	---	----

## Foreword

This Japanese Industrial Standard has been 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 Thermal Insulation Association (JTIA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS A 9504 : 2017**), which has been technically revised.

However, **JIS A 9504 : 2017** may be applied in the **JIS** mark certification based on the relevant provisions of Article 30, paragraph (1), etc. of the Industrial Standardization Act until 19 March 2025.

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

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

Blank

# Man made mineral fibre thermal insulation materials

## Introduction

This Japanese Industrial Standard has been prepared based on **ISO 8142** : 1990, Edition 1, with some additions/modifications of the technical contents such that some **JIS** specification contents for wool, board insulation, felt, wave insulation, lamella product and blanket, except pipe insulation, which are not given in the said corresponding International Standard are added.

Annex JA and Annex JB are unique to **JIS** and not given in the corresponding International Standard. The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JC. A list of technically significant revisions from the previous edition with reasons is given in Annex JD.

## 1 Scope

This Standard specifies the requirements for the man-made mineral fibre thermal insulation materials (hereafter referred to as the thermal insulation materials) used for the hot insulation or cold insulation of the equipment in industrial installations such as factories, power plants and incinerators, and air-conditioning and plumbing unit of buildings.

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

ISO 8142 : 1990    *Thermal insulation — Bonded preformed man-made mineral fibre pipe sections — Specification* (MOD)

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

## 2 Normative references

Part or all of the provisions of the following standards, 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 0202    *Thermal insulation — Vocabulary*

**NOTE** Normative reference in the corresponding International Standard: ISO 7345 : 1987    *Thermal insulation — Physical quantities and definitions*

JIS A 1412-1    *Test method for thermal resistance and related properties of thermal insulations — Part 1 : Guarded hot plate apparatus*

**NOTE** Normative reference in the corresponding International Standard: ISO 8302 : 1991    *Thermal insulation — Determination of steady-state thermal resistance and related properties — Guarded hot plate apparatus*