

# JIS

JAPANESE  
INDUSTRIAL  
STANDARD

Translated and Published by  
Japanese Standards Association

---

**JIS H 8260** : 2007

(JTSS/JSA)

**Powders for thermal spraying**

---

**ICS** 25.220.20

**Reference number** : **JIS H 8260 : 2007 (E)**

H 8260 : 2007

Date of Establishment: 2007-12-20

Date of Public Notice in Official Gazette: 2007-12-20

Investigated by: Japanese Industrial Standards Committee

Standards Board

Technical Committee on Non-Ferrous Metals

---

JIS H 8260:2007, First English edition published in 2008-02

Translated and published by: Japanese Standards Association  
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

---

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

© JSA 2008

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

NH/AT

PROTECTED BY COPYRIGHT

## Contents

	Page
Introduction.....	1
1 Scope.....	1
2 Normative references .....	1
3 Terms and definitions .....	1
4 Types and chemical compositions .....	2
5 Analytical test for chemical compositions and measurement of physical properties .....	12
5.1 Test and measurement items of thermal spraying materials.....	12
5.2 Sampling .....	13
5.3 Analytical test for chemical compositions.....	13
5.4 Measurement of particle size .....	13
5.5 Measurement of particle shape .....	14
5.6 Measurement of apparent density .....	14
5.7 Measurement of flowability.....	14
5.8 Measurement of microstructure .....	14
5.9 Measurement and analysis of crystal structure .....	14
5.10 Measurement of fusion temperature .....	15
6 Designation method of thermal spraying material .....	15
7 Delivery condition .....	15
8 Test report .....	15
Annex A (informative) Relationship between particle shape (SEM image) and manufacturing method of powders for thermal spraying .....	16
Annex JA (informative) Comparison table between JIS and corresponding International Standard .....	20

## **Foreword**

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee as the result of proposal for establishment of Japanese Industrial Standard submitted by Japan Thermal Spraying Society (JTSS)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

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

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

# Powders for thermal spraying

## Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **ISO 14232** published in 2000 with some modifications of the technical contents involving the difference in values of the material elements in detail.

The portions given sidelines or dotted underlines are the matters in which the contents of the original International Standard have been modified. A list of modifications with explanations is given in Annex JA.

## 1 Scope

This Standard specifies the chemical compositions and physical properties of powders for thermal spraying (hereafter referred to as “thermal spraying material”).

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

ISO 14232:2000 *Thermal spraying—Powders—Composition and technical supply conditions* (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**.

## 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 H 8200 *Thermal spraying terms*

JIS Z 2500 *Powder metallurgy—Vocabulary*

JIS Z 2502 *Metallic powders—Determination of flowability by means of a calibrated funnel (Hall flowmeter)*

NOTE : Corresponding International Standard: ISO 4490 *Metallic powders—Determination of flow time by means of a calibrated funnel (Hall flowmeter)* (MOD)

JIS Z 2503 *Powders for powder metallurgical purposes—Sampling*

NOTE : Corresponding International Standard: ISO 3954 *Powders for powder metallurgical purposes—Sampling* (IDT)

JIS Z 2504 *Metallic powders—Determination of apparent density—Funnel method*

## 3 Terms and definitions

For the purposes of this Standard, the definitions given in **JIS Z 2503**, **JIS Z 2500** and **JIS H 8200** shall apply.