JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS H 7501 : 2016

(OSTEC/JSA)

Method for evaluation of tensile properties of metallic superplastic materials

ICS 77.040.10

Reference number : JIS H 7501 : 2016 (E)

Date of Establishment: 2002-08-20

Date of Revision: 2016-09-20

Date of Public Notice in Official Gazette: 2016-09-20

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

Technical Committee on Metal and Inorganic Materials

JIS H 7501 : 2016, First English edition published in 2017-01

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.

Printed in Japan HT/HN

Contents

Page

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 Osaka Science & Technology Center (OSTEC)/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 H 7501**: 2002 is replaced with this Standard. **JIS H 7505**: 2004 has been withdrawn and replaced with this Standard.

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.

Method for evaluation of tensile properties of metallic superplastic materials

Introduction

This Japanese Industrial Standard has been prepared based on the second edition of **ISO 20032** published in 2013 with some modifications of the technical contents.

The portions given 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 JA.

1 Scope

This Standard specifies a method for evaluating the tensile properties of metallic superplastic materials which exhibit what is called "Fine-Grained Superplasticity", without significant work-hardening or dynamic microstructure evolution, by means of a tensile test at constant cross-head velocity, for flat-form test pieces, without an extensometer attached.

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

ISO 20032 : 2013 *Method for evaluation of tensile properties of metallic superplastic materials* (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

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 B 7721 *Tension/compression testing machines — Verification and calibration of the force-measuring system*

NOTE : Corresponding International Standard : ISO 7500-1 : 2004 *Metallic materials — Verification of static uniaxial testing machines — Part 1 : Tension/compression testing machines — Verification and calibration of the force-measuring system* (MOD)

JIS C 1602 *Thermocouples*

JIS G 0567 *Method of elevated temperature tensile test for steels and heat-resisting alloys*

NOTE : Corresponding International Standard : ISO 6892-2 : 2011 *Metallic ma-*