JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS H 0511 : 2015

(JTS)

Titanium and titanium alloys — Brinell hardness test for titanium sponge

ICS 77.040.10 ; 77.120.50

Reference number : **JIS H 0511 : 2015 (E)**

Date of Establishment: 1961-03-01

Date of Revision: 2015-12-21

Date of Public Notice in Official Gazette: 2015-12-21

Investigated by: Japanese Industrial Standards Committee

Standards Board for ISO area

Technical Committee on Metal and Inorganic Materials

JIS H 0511 : 2015, First English edition published in 2016-03

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 NH/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 The Japan Titanium Society (JTS) 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 0511**:2007 is 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.

Titanium and titanium alloys — Brinell hardness test for titanium sponge

1 Scope

This Japanese Industrial Standard specifies the methods of Brinell hardness test for titanium sponge. This Standard is usually applicable to the purpose of testing the hardness of the ingot obtained by melting titanium sponge and evaluating the quality of titanium sponge.

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) listed below shall be applied.

JIS B 7724 *Brinell hardness test — Verification of testing machines*

JIS H 1610 *Titanium and titanium alloys — Sampling methods*

JIS H 2151 *Titanium and titanium alloys — Titanium sponge*

JIS K 1105 *Argon*

JIS Z 2243 *Brinell hardness test — Test method*

JIS Z 8402-6 *Accuracy (trueness and precision) of measurement methods and results — Part 6 : Use in practice of accuracy values*

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in **JIS H 2151**, and the following apply.

3.1 arc melting method

melting method in which arc discharge is generated between the target melting material and the electrode torch in the atmosphere of inert gas such as argon gas by using the melting furnace equipped with the non-consumable electrode torch made of tungsten

This is applicable to the preparations of button-shaped sample and cylindrical sample.

3.2 plasma melting method

melting method of the target melting material in the crucible that the argon gas being allowed to flow out from the torch between the crucible and the electrode torch is plasmarized by using the melting furnace equipped with the non-consumable electrode torch made of tungsten or copper