JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS Z 3282 : 2017

(JWES/JSA)

Soft solders—
Chemical compositions and forms

ICS 25.160.50

Reference number : JIS Z 3282 : 2017 (E)

Date of Establishment: 1972-04-01
Date of Revision: 2017-03-21
Date of Public Notice in Official Gazette: 2017-03-21
Investigated by: Japanese Industrial Standards Committee
Standards Board for ISO area
Technical Committee on Metal and Inorganic Materials

JIS Z 3282:2017, First English edition published in 2017-09

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/AT

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 Welding Engineering Society (JWES)/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 Z 3282**:2006 is replaced with this Standard.

However, **JIS Z 3282**:2006 may be applied in the **JIS** mark certification based on the relevant provisions of Article 19 Clause 1, etc. of the Industrial Standardization Law until March 20, 2018.

It should be noted that being in conformance with this Standard may come under the use of the patent rights specified in Annex A.

The relevant holders of the above-mentioned patent rights have indicated an intention of granting license to anyone under the nondiscriminatory and reasonable conditions. Except to the other relevant holders of the patent rights related to this Standard who will not grant their licenses under the same conditions.

It should be noted that following this Standard does not always refer to granting a free license.

There is the possibility that some parts of this Standard may conflict with patent rights other than mentioned above. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying any of such patent rights.

The “patent rights” as mentioned here include patent right, application for a patent after opening to the public or utility model right.

Soft solders—
Chemical compositions and forms

Introduction

This Japanese Industrial Standard has been prepared based on **ISO 9453**:2014, Edition 3, and **IEC 61190-1-3**:2010, Edition 2.1, with some modifications of technical contents to reflect the recent technological advance in Japan related to lead-containing solders and lead-free solders.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standards. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies lead-containing soft solders used in the field of general or electric/electronic industries (hereafter referred to as lead-containing solders) and soft solders not containing lead (hereafter referred to as lead-free solders).

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

ISO 9453:2014 *Soft solder alloys—Chemical compositions and forms*

IEC 61190-1-3:2010 *Attachment materials for electronic assembly—Part 1-3: Requirements for electronic grade solder alloys and fluxed and non-fluxed solid solders for electronic soldering applications* (overall evaluation: 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 H 0321 *General rules for inspection of non-ferrous metal materials*

JIS Z 3001-1 *Welding and allied processes—Vocabulary—Part 1: General*

JIS Z 3001-3 *Welding and allied processes—Vocabulary—Part 3: Soldering and brazing*

JIS Z 3198-1 *Test methods for lead-free solders—Part 1: Methods for measuring of melting temperature ranges*

JIS Z 3284-1 *Solder paste—Part 1: Kinds and quality classification*

JIS Z 3910 *Methods for chemical analysis of solder*