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Solder paste — Part 4: Test methods for wettability, solderball and spread

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

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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 according to the proposal for establishment of Japanese Industrial Standard submitted by The Japan Welding Engineering Society (JWES) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

Consequently **JIS Z 3284**:1994 has been withdrawn and partially replaced with this Standard.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.

JIS Z 3284 series consists of the following 4 parts under the general title "*Solder paste —*":

Part 1: Kinds and quality classification

Part 2: Test methods for solder particle shape, surface condition judgment, and particle size distribution

Part 3: Test methods for printability, viscosity, slump and tackiness

Part 4: Test methods for wettability, solderball and spread

Solder paste — Part 4 : Test methods for wettability, solderball and spread

Introduction

This Japanese Industrial Standard has been prepared based on the first edition of **IEC 61189-5** published in 2006 with some modifications of the technical contents in order to reflect the current situation in Japan.

The portions given sidelines or 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 the flux efficacy and de-wetting test, solderball test, spread test, wetting balance test and displacement detection wetting test of the solder paste for soldering used for the wiring connection, connection of parts, etc. of electric equipment, electronic equipment, communication equipment, etc.

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

IEC 61189-5 : 2006 *Test methods for electrical materials, interconnection structures and assemblies — Part 5 : Test methods for printed board assemblies* (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 C 0099 *Environmental testing : Tests — Test : Test methods for solderability of surface mounting devices (SMD) by wetting balance using lead-free solder paste*

JIS H 3100 *Copper and copper alloy sheets, plates and strips*

JIS K 8034 *Acetone (Reagent)*

JIS K 8180 *Hydrochloric acid (Reagent)*

JIS K 8839 *2-Propanol (Reagent)*

JIS R 6252 *Abrasive papers*