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Edition 1.0 2016-07

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Test method for erosion of wave soldering equipment using molten lead-free solder alloy – Part 2: Erosion test method for metal materials with surface processing

Méthode d'essai de l'érosion de l'équipement de brasage à la vague utilisant un alliage à braser sans plomb fondu – Partie 2: Méthode d'essai d'érosion de matériaux métalliques avec traitement de surface

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International Standard IEC 62739-2 has been prepared by IEC technical committee 91: Electronics assembly technology.

The text of this standard is based on the following documents:

FDIS	Report on voting
91/1365/FDIS	91/1379/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts in the IEC 62739 series, published under the general title *Test method for erosion of wave soldering equipment using molten lead-free solder alloy*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

TEST METHOD FOR EROSION OF WAVE SOLDERING EQUIPMENT USING MOLTEN LEAD-FREE SOLDER ALLOY –

Part 2: Erosion test method for metal materials with surface processing

1 Scope

This part of IEC 62739 provides an evaluating test method for the erosion of the metallic materials with surface processing intended to be used for lead-free wave soldering equipment as a solder bath and other components which are in contact with the molten solder. It aims at prevention of an accident or a fire by predicting a setup and life of a suitable maintenance cycle.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61190-1-3, *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*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
erosion
phenomenon where a base material is dissolved and made thinner by coming into contact with molten solder

[SOURCE: IEC 62739-1:2013, 3.1]

3.2
lead-free solder
alloy that does not contain more than 0,1 % lead (Pb) by weight and used for joining components to substrates or for coating surfaces

[SOURCE: IEC 60194:2015, 75.1904]

3.3
dross
oxide and other contaminants that form on the surface of molten solder

[SOURCE: IEC 60194:2015, 75.0410]