IEC 61189-5-301

Edition 1.0 2021-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Test methods for electrical materials, printed boards and other interconnection structures and assemblies –
Part 5-301: General test methods for materials and assemblies – Soldering paste using fine solder particles

Méthodes d'essai pour les matériaux électriques, les cartes imprimées et autres structures d'interconnexion et ensembles –
Partie 5-301: Méthodes d'essai générales pour les matériaux et les assemblages – Pâte à braser à fines particules de brasage

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The text of this International Standard is based on the following documents:

Draft	Report on voting
91/1655/CDV	91/1698/RVC

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

A list of all parts in the IEC 61189 series, published under the general title *Test methods for electrical materials, printed boards and other interconnection structures and assemblies*, can be found on the IEC website.

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

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TEST METHODS FOR ELECTRICAL MATERIALS, PRINTED BOARDS AND OTHER INTERCONNECTION STRUCTURES AND ASSEMBLIES –

Part 5-301: General test methods for materials and assemblies – Soldering paste using fine solder particles

1 Scope

This part of IEC 61189 specifies methods for testing the characteristics of soldering paste using fine solder particles (hereinafter referred to as solder paste).

This document is applicable to the solder paste using fine solder particle such as type 6, type 7 specified in IEC 61190-1-2 or finer particle sizes.

This type of solder paste is used for connecting wiring and components in high-density printed circuit boards which are used in electronic or communication equipment and such, equipping fine wiring (e.g., minimum conductor widths and minimum conductor gaps of 60 µm or less).

Test methods for the characteristics of solder paste in this document are considering the effect of surface activation force due to the fine sized solder particles which could affect the test result by existing test methods.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61189-5-3:2015, *Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 5-3: General test methods for materials and assemblies: Soldering paste for printed board assemblies*

IEC 61190-1-2:2014, *Attachment materials for electronic assembly – Part 1-2: Requirements for soldering pastes for high-quality interconnects in electronics assembly*

ISO 857-2, *Welding and allied processes – Vocabulary – Part 2: Soldering and brazing processes and related terms*

3 Terms and definitions

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