

INTERNATIONAL STANDARD

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**Test methods for electrical materials, printed board and other interconnection structures and assemblies –
Part 5-504: General test methods for materials and assemblies – Process ionic contamination testing (PICT)**

**Méthodes d'essai pour les matériaux électriques, les cartes imprimées et autres structures d'interconnexion et ensembles –
Partie 5-504: Méthodes d'essai générales pour les matériaux et les ensembles –
Essai de contamination ionique des procédés (PICT)**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**TEST METHODS FOR ELECTRICAL MATERIALS, PRINTED BOARDS
AND OTHER INTERCONNECTION STRUCTURES AND ASSEMBLIES –****Part 5-504: General test methods for materials and assemblies –
Process ionic contamination testing (PICT)**

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International Standard IEC 61189-5-504 has been prepared by IEC technical committee 91: Electronics assembly technology.

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

FDIS	Report on voting
91/1639/FDIS	91/1644/RVD

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

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

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.

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

Part 5-504: General test methods for materials and assemblies – Process ionic contamination testing (PICT)

1 Scope

This part of IEC 61189 is a test method designed to determine the proportion of soluble ionic residues present upon a circuit board, electronic component or assembly. The conductivity of the solution used to dissolve the ionic residues is measured to evaluate the level of ionic residues.

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 60068-1, *Environmental testing – General and guidance*

IEC 60068-2-20, *Environmental testing – Part 2-20: Tests – Test T: Test methods for solderability and resistance to soldering heat of devices with leads*

IEC 60068-2-58, *Environmental testing – Part 2-58: Tests – Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)*

IEC 60079-7, *Explosive atmospheres – Part 7: Equipment protection by increased safety "e"*

IEC 60194, *Printed board design, manufacture and assembly – Terms and definitions*

IEC 61189-5-502, *Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 5-502: General test methods for materials and assemblies – Surface insulation resistance (SIR) testing of assemblies*

IEC 61190-1-3, *Attachment materials for electronic assembly – Part 1-3: Requirements for electronic grade solder alloys and fluxed and non-fluxed solid solder for electronic soldering applications*

IPC-TM-650 method 2.6.3.7, *Surface Insulation Resistance*

IPC 9202, *Material and Process Characterisation / Qualification Test Protocol for Assessing Electrochemical Performance*

IPC 9203, *Users Guide to IPC 9202 and the IPC-B-52 Standard Test Vehicle*