
Preskusne metode za električne materiale, tiskane plošče ter druge povezovalne strukture in sestave - 5-1. del: Splošne preskusne metode za materiale in sestave - Navodilo za sestave plošč tiskanih vezij

Test methods for electrical materials, printed boards and other interconnection structures and assemblies - Part 5-1: General test methods for materials and assemblies - Guidance for printed board assemblies

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Méthodes d'essai pour les matériaux électriques, les cartes imprimées et autres structures d'interconnexion et ensembles - Partie 5-1: Méthodes d'essai générales pour les matériaux et assemblages - Lignes directrices pour les assemblages de cartes à circuit imprimé

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Test methods for electrical materials, printed boards and other
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(IEC 61189-5-1:2016)

Méthodes d'essai pour les matériaux électriques, les cartes
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les matériaux et assemblages - Lignes directrices pour les
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Prüfverfahren für Elektromaterialien, Leiterplatten und
andere Verbindungsstrukturen und Baugruppen - Teil 5-1:
Allgemeine Prüfverfahren für Materialien und Baugruppen -
Leitfaden für Baugruppen von Leiterplatten
(IEC 61189-5-1:2016)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN 61189-5-1:2016**European foreword**

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The following dates are fixed:

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IEC 60068 (series)	NOTE	Harmonized as EN 60068 (series).
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IEC 60068-2-20	NOTE	Harmonized as EN 60068-2-20.
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IEC 61189-5-3:2015	NOTE	Harmonized as EN 61189-5-3:2015.
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IEC 61190-1-3	NOTE	Harmonized as EN 61190-1-3.

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**Test methods for electrical materials, printed boards and other interconnection structures and assemblies –
Part 5-1: General test methods for materials and assemblies – Guidance for printed board assemblies**

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**Méthodes d'essai pour les matériaux électriques, les cartes imprimées et autres structures d'interconnexion et ensembles –
Partie 5-1: Méthodes d'essai générales pour les matériaux et les assemblages –
Lignes directrices pour les assemblages de cartes à circuit imprimé**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 5-1: General test methods for materials and assemblies – Guidance for printed board assemblies

FOREWORD

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International Standard IEC 61189-5-1 has been prepared by IEC technical committee 91: Electronics assembly technology.

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

CDV	Report on voting
91/1273/CDV	91/1354/RVC

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 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 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.

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INTRODUCTION

IEC 61189 relates to test methods for printed boards and printed board assemblies, as well as related materials or component robustness, irrespective of their method of manufacture.

The standard is divided into separate parts, covering information for the designer and the test methodology engineer or technician. Each part has a specific focus. Methods are grouped according to their application and numbered sequentially as they are developed and released.

In some instances test methods developed by other technical committees (for example, TC 104) have been reproduced from existing IEC standards in order to provide the reader with a comprehensive set of test methods. When this situation occurs, it will be noted on the specific test method. If the test method is reproduced with minor revisions, those paragraphs that are different are identified.

This part of IEC 61189 contains test methods for evaluating printed board assemblies as well as materials used in the manufacture of electronic assemblies. The methods are self-contained, with sufficient detail and description so as to achieve uniformity and reproducibility in the procedures and test methodologies.

It was decided by TC 91 that the contents of IEC 61189-5 and IEC 61189-6 be merged into a series of documents in the following way:

IEC 61189-5-1, *Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 5-1: General test methods for materials and assemblies – Guidance for printed board assemblies*

IEC 61189-5-2:2015, *Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 5-2: General test methods for materials and assemblies – Soldering flux for printed board assemblies*

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 61189-5-4:2015, *Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 5-4: General test methods for materials and assemblies – Solder alloys and fluxed and non-fluxed solid wire for printed board assemblies*

IEC 61189-5-501:—, *Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 5-501: General test methods for materials and assemblies – Surface insulation resistance (SIR) testing of solder fluxes*¹

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 – SIR testing of assemblies*¹

IEC 61189-5-503:—, *Test methods for electrical materials, printed boards and other interconnection structures and assemblies – Part 5-503: General test methods for materials and assemblies – Conductive Anodic Filaments (CAF) testing of circuit boards*¹

IEC 61189-5-504:—, *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*¹

¹ Under consideration.