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TECHNICAL REPORT

Printed board assemblies –
Part 7: Technical cleanliness of components and printed board assemblies

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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PRINTED BOARD ASSEMBLIES –

Part 7: Technical cleanliness of components and printed board assemblies

FOREWORD

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IEC/TR 61191-7, which is a technical report, has been prepared by IEC technical committee 91: Electronics assembly technology.

The text of this Technical Report is based on the following documents –

Draft TR	Report on voting
91/1583/DTR	91/1595/RVDTR

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

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

A list of all parts in the IEC 61191 series, published under the general title *Printed board 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 "http//www.webstore.iec.ch" in the data related to the specific document. At this date, the document will be

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- withdrawn,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

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INTRODUCTION

The Technical Report applies to electric, electronic and electromechanical components, circuit boards and electronic assemblies and describes the resulting level of technical cleanliness that can be expected for products that are manufactured with state-of-the-art standard production methods and processes.

The Technical Report is an informative document which serves to illustrate the technically feasible options and provide a basis for customer and supplier agreements. It is not intended to be regarded as a specification or standard. It does not cover the production of electric motors, batteries, cable harnesses and relays.

Its primary focus is on loose or easily detachable particles (labile particles). Film residues, chemical and biological contamination are also briefly covered. It does not deal with the cleanliness of functional fluids and/or gases.

This Technical Report provides information, how the requirements put down in VDA 19.1 and VDA 19.2 could become reasonably applied in electronic industry It provides information about particle generation considering processes and materials, illustrates their impact on performance and reliability and describes suitable countermeasures as well as procedures for risk assessments.

Related standards issued by the automotive industry and the electronic industry are gathered in the bibliography.

The Technical Report has been prepared based on material provided by the working group on component cleanliness of the ZVEI (Zentralverband Elektrotechnik- und Elektronikindustrie e.V., Germany).

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PRINTED BOARD ASSEMBLIES –

Part 7: Technical cleanliness of components and printed board assemblies

1 Scope

This part of IEC 61191 serves as a Technical Report and provides information, how technical cleanliness can be assessed within the electronics assembly industry. Technical cleanliness concerns sources, analysis, reduction and control as well as associated risks of particulate matter, so-called foreign-object debris, on components and electronic assemblies in the electronics industry.

2 Normative references

There are no normative references in this document.