TECHNICAL REPORT

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Semiconductor die products –

Part 3: Recommendations for good practice in handling, packing and storage

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SEMICONDUCTOR DIE PRODUCTS –

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FOREWORD

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IEC 62258-3, which is a technical report, has been prepared by IEC technical committee 47: Semiconductor devices.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
47/1794/DTR	47/1806/RVC

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.

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

IEC 62258, as currently conceived, consists of the following parts, under the general title *Semiconductor die products* [1]

Part 1:	Requirements for procurement and use
Part 2:	Exchange data formats
Part 3:	Recommendations for good practice in handling, packing and storage
Part 4:	Questionnaire for die users and suppliers
Part 5:	Requirements for information concerning electrical simulations
Part 6:	Requirements for information concerning thermal simulations

Further parts may be added as required.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site 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- withdrawn;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.

A bilingual version of this publication may be issued at a later date.

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[1] At the time of writing, IEC 62258-3 is the only part in existence. Other parts are under consideration.

INTRODUCTION

Organizations that helped prepare this technical report included the ESPRIT GOOD-DIE project, DPC, and JEITA.

SEMICONDUCTOR DIE PRODUCTS –

Part 3: Recommendations for good practice in handling, packing and storage

1 Scope and object

This technical report has been developed to facilitate the production, supply and use of semiconductor die products, including:

- wafers,
- singulated bare die,
- die and wafers with attached connection structures, and
- minimally or partially encapsulated die and wafers.

This report contains suggested good practice for the handling, packing and storage of die products.

Success in manufacture of electronic assemblies containing die products is enhanced by attention to handling, storage and environmental conditions. This report provides guidelines taken from industry experience and is especially useful to those integrating die products into assemblies for the first time. It is also intended as an aid to setting up and auditing facilities that handle or use bare die products, from wafer fabrication to final assembly.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references the lasted edition of the referenced document (including any amendments) applies.

IEC 60050 (all parts), *International Electrotechnical Vocabulary*

IEC 60286-3, *Packaging of components for automatic handling – Part 3: Packaging of surface mount components on continuous tapes*

IEC 61340-5-1:1998, *Electrostatics – Part 5-1: Protection of electronic devices from electrostatic phenomena – General requirements*

IEC 61340-5-2:1999, *Electrostatics – Part 5-2: Protection of electronic devices from electrostatic phenomena – User guide*

IEC 62258-1, *Semiconductor die products – Part 1: Requirements for procurement and use* [2]

ISO 14644-1, *Cleanrooms and associated controlled environments – Part 1: Classification of air cleanliness*

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[2] Under consideration.