

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Electrostatics –
Part 5-3: Protection of electronic devices from electrostatic phenomena –
Properties and requirements classification for packaging intended for
electrostatic discharge sensitive devices**

**Électrostatique –
Partie 5-3: Protection des dispositifs électroniques contre les phénomènes
électrostatiques – Classification des propriétés et des exigences relatives à
l'emballage destiné aux dispositifs sensibles aux décharges électrostatiques**



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CONTENTS

FOREWORD.....	4
INTRODUCTION.....	6
1 Scope.....	7
2 Normative references	7
3 Terms, definitions and abbreviations	7
3.1 Terms and definitions.....	7
3.2 Abbreviations.....	9
4 Tailoring.....	9
5 Packaging application requirement.....	9
5.1 General.....	9
5.2 Inside an EPA.....	9
5.3 Outside an EPA.....	9
6 Classification of ESD packaging material properties	10
6.1 General.....	10
6.2 Material resistance properties	10
6.2.1 General	10
6.2.2 Resistance of conductive materials.....	10
6.2.3 Resistance of electrostatic field shielding materials	10
6.2.4 Resistance of dissipative materials.....	11
6.2.5 Resistance of insulating materials.....	11
6.3 Material electrostatic shielding properties.....	11
6.3.1 Electrostatic discharge shielding.....	11
6.3.2 Electrostatic field shielding	11
7 Technical requirements for ESD protective packaging	11
7.1 Packaging and material properties	11
7.2 Packaging marking	13
7.2.1 Classification symbol.....	13
7.2.2 Packaging classification.....	13
7.2.3 Traceability.....	14
Annex A (informative) ESD packaging material guidance	15
A.1 Environment and device sensitivity	15
A.1.1 General	15
A.1.2 Environment	15
A.1.3 Device sensitivity.....	16
A.2 Equipotential bonding	17
A.3 Dissipative material for intimate contact.....	17
A.4 Packaging from incoming material to the point of use.....	17
A.5 Periodic verification	18
A.6 Examples of measurement procedures for qualification and verification of packaging	19
Annex B (informative) Device damage	20
B.1 Damage from ESD	20
B.2 Discharge to a device	20
B.2.1 Human body model (HBM) [2] and isolated conductors	20
B.2.2 Retained charge	20

B.3	Discharge from a device	20
B.3.1	Charged device model (CDM)	20
B.3.2	Tribo-electrification	20
	Bibliography.....	21
	Figure 1 – Example of packaging label (*Primary function code)	13
	Figure A.1 – Examples of EPA configurations	16
	Figure A.2 – Application of ESD protective packaging	18
	Table 1 – Test methods for electrostatic protective packaging	12
	Table 2 – Test methods and requirements for electrostatic discharge shielding packaging	12
	Table 3 – Primary function code/ESD classification symbol.....	14
	Table A.1 – Packaging characteristics for environmental consideration.....	15
	Table A.2 – Examples for qualification and verification of packaging.....	19

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTROSTATICS –

**Part 5-3: Protection of electronic devices from electrostatic phenomena –
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FOREWORD

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International Standard IEC 61340-5-3 has been prepared by IEC technical committee 101: Electrostatics.

This second edition cancels and replaces the first edition published in 2010. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- a) removal of all references to ANSI/ESD STM11.13, replaced by normative reference IEC 61340-4-10;
- b) additional notes added to Table 1;
- c) addition of a new Table 3 related to the "ESD classification symbol" and the "primary function code".

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

CDV	Report on voting
101/428/CDV	101/457/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 61340 series, under the general title *Electrostatics*, 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 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.

INTRODUCTION

Packaging is necessary to protect electrostatic discharge sensitive devices (ESDS) from physical and environmental damage during manufacture, transportation and storage.

Additionally, packaging for ESDS should also prevent damage from static electricity.

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ELECTROSTATICS –

Part 5-3: Protection of electronic devices from electrostatic phenomena – Properties and requirements classification for packaging intended for electrostatic discharge sensitive devices

1 Scope

This part of IEC 61340 defines the ESD protective packaging properties needed to protect electrostatic discharge sensitive devices (ESDS) through all phases of production, rework/maintenance, transport and storage. Test methods are referenced to evaluate packaging and packaging materials for these product and material properties. Performance limits are provided.

This standard does not address protection from electromagnetic interference (EMI), electromagnetic pulsing (EMP) or protection of volatile materials.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 61340-2-3, *Electrostatics – Part 2-3: Methods of test for determining the resistance and resistivity of solid planar materials used to avoid electrostatic charge accumulation*

IEC 61340-4-8, *Electrostatics – Part 4-8: Standard test methods for specific applications – Electrostatic discharge shielding – Bars*

IEC 61340-4-10, *Electrostatics – Part 4-10: Standard test methods for specific applications – Two-point resistance measurement¹*

IEC 60417, *Graphical symbols for use on equipment* (available at <http://www.graphical-symbols.info/equipment>)

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1.1

electrostatic discharge

ESD

rapid transfer of charge between bodies at different electrostatic potentials

Note 1 to entry: This note applies to the French language only.

¹ At the time of writing, it is proposed withdrawing IEC 61340-4-10: 2012 and incorporating the test method into the next edition of IEC 61340-2-3.