IEC 61340-4-3

Edition 2.0 2017-12

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Electrostatics –
Part 4-3: Standard test methods for specific applications – Footwear

Électrostatique –
Partie 4-3: Méthodes d'essai normalisées pour des applications spécifiques – Chaussures

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CONTENTS

FOREWORD 3
INTRODUCTION 5
1 Scope 6
2 Normative references 6
3 Terms and definitions 6
4 Test specimens 7
5 Environment for conditioning and testing 7
5.1 Conditioning and controlled environment for qualification tests 7
5.2 Environment for acceptance tests 7
6 Test report 7
7 Test equipment 8
7.1 Load applied to footwear under test 8
7.2 Conductive electrode 8
7.3 Counter electrode 8
7.4 Insulative support plate 8
7.5 Resistance measurement apparatus 8
7.5.1 General 8
7.5.2 Laboratory evaluations (qualification testing) 8
7.5.3 Acceptance testing 9
7.6 Environmental test chamber 9
8 Test procedure 9
9 Repeatability and reproducibility 10
Bibliography 11

Figure 1 – Form-fitting weight and measuring set-up (schematic) 9

Table 1 – Controlled conditions for electrical measurements 7

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ELECTROSTATICS –

Part 4-3: Standard test methods for specific applications – Footwear

FOREWORD

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International Standard IEC 61340-4-3 has been prepared by IEC technical committee 101: Electrostatics.

This second edition cancels and replaces the first edition published in 2001. This edition constitutes a technical revision.

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

a) classification of footwear as electrostatic conductive or electrostatic dissipative has been removed – classification is not specified;
b) environmental classes for laboratory testing have been removed – one set of conditions for pre-conditioning, conditioning and testing is specified;
c) reference to IEC 61340-2-3 for measuring the resistance of the counter electrode inserted inside footwear has been removed.

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

FDIS	Report on voting
101/544/FDIS	101/550/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 the parts in the IEC 61340 series, published under the general title *Electrostatics*, 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://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

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- replaced by a revised edition, or
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INTRODUCTION

Footwear, especially shoes, has become an important electrostatic control device in all areas, but particularly in electronics manufacturing. Standards exist from various national committees and these have served as guidance in the preparation of this part of IEC 61340 for electrostatic control footwear.

Control of unwanted electrostatic charge is of particular importance where personnel work around electrostatic-sensitive processes, materials or items. In many cases, devices such as wrist straps are employed to provide an electrical bond between a person's skin and a ground connection. Many instances exist in industry where wrist straps or other tethering devices cannot be safely or conveniently applied, but there is still a need to provide a ground connection for personnel. A convenient method to provide a ground connection for personnel is through their footwear while standing or walking on a defined and properly specified electrostatic control floor surface.

The measurement method described in this document can be used to monitor electrical specifications of footwear during manufacture, prior to selection by an end user or periodically during use. The method described involves the use of a specific set of test equipment and instruments. Other equipment and instruments may be used to measure the parameters specified, but in the event of any dispute, the equipment, instruments and measurement method established in this document apply.

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ELECTROSTATICS –

Part 4-3: Standard test methods for specific applications – Footwear

1 Scope

This part of IEC 61340 describes a test method for determining the electrical resistance of footwear (shoes, slippers or booties) used in the control of electrostatic potential on people. This document is suitable for use by the manufacturer of footwear as well as the end user. A method for measuring the electrical resistance of footwear alone is described and serves as a qualification test or an acceptance test for new footwear, or as a periodic test of in-use footwear.

Although this document does not include requirements for personal safety, footwear used within the scope of this document in all places of work is regulated by the relevant local statutory requirements regarding the health and safety of all persons.

Insulating footwear is not included within the scope of this document although the electrical resistance measurement techniques can be applicable.

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 62631-3-1, *Dielectric and resistive properties of solid insulating materials – Part 3-1: Determination of resistive properties (DC methods) – Volume resistance and volume resistivity – General method*

IEC 62631-3-2, *Dielectric and resistive properties of solid insulating materials – Part 3-2: Determination of resistive properties (DC methods) – Surface resistance and surface resistivity*

IEC 62631-3-3, *Dielectric and resistive properties of solid insulating materials – Part 3-3: Determination of resistive properties (DC methods) – Insulation resistance*

3 Terms and definitions

No terms and definitions are listed in this document.

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