ANSI/ESD STM11.12-2015
Revision of ANSI/ESD STM11.12-2007

ESD Association Standard Test Method

For the Protection of Electrostatic Discharge Susceptible Items

Volume Resistance Measurements of Static Dissipative Planar Materials

ANSI/ESD STM11.12-2015

Electrostatic Discharge Association
7900 Turin Road, Bldg 3
Rome, NY 13440-2069

An American National Standard
Approved May 28, 2015

ESD Association Standard Test Method for the Protection of Electrostatic Discharge Susceptible Items –

Volume Resistance Measurement of Static Dissipative Planar Materials

Approved February 10, 2015
EOS/ESD Association, Inc.

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FOREWORD

This standard test method[1] was developed to fulfill a need to measure static dissipative planar materials not provided for by existing ASTM volume resistance measurement methods.

Without regard to a material's method of conduction, this procedure is a resistance measurement through a material's thickness. No effort is made to compensate for different thickness of material or to convert the measurement result to a resistance per unit thickness value.

This document was originally designated ANSI/ESD STM11.12-2000 and approved on February 6, 2000. ANSI/ESD STM11.12-2007 was a reaffirmation of ANSI/ESD STM11.12-2000 and was approved on February 11, 2007. ANSI/ESD STM11.12-2015 is a revision of ANSI/ESD STM11.12-2007 and was approved on February 10, 2015.

At the time ANSI/ESD STM11.12-2015 was prepared, the 11.0 Packaging Subcommittee had the following members:

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The following individuals made significant contributions to ANSI/ESD STM11.12-2015:

Brent Beamer

[1] **ESD Association Standard Test Method (STM):** A definitive procedure for the identification, measurement and evaluation of one or more qualities, characteristics, or properties of a material, product, system, or process that yield a **reproducible test** results.

At the time ANSI/ESD STM11.12-2007 was prepared, the 11.0 Packaging Subcommittee had the following members:

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3M

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Walt Gately Ex-Tech Plastics, Inc.	Ben Baumgartner, TAS Rep ESD West	Rick Knight ITW ECPS
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Stan Weitz Electro-Tech System	Stephen Halperin SH&A	John Kinnear IBM

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ESD Association Standard Test Method for Protection of Electrostatic Discharge Susceptible Items – Volume Resistance Measurement of Static Dissipative Planar Materials

1.0 PURPOSE

This standard test method defines the test procedure, equipment, sample preparation, and conditioning needed to achieve reproducible volume resistance test results on static dissipative planar materials.

2.0 SCOPE

This standard test method defines a direct current measurement to determine the volume resistance of a static dissipative, planar material, without regard to its conduction mechanism.

3.0 REFERENCED PUBLICATIONS

Unless otherwise specified, the following documents of the latest issue, revision or amendment form a part of this standard test method to the extent specified herein:

ANSI/ESD STM11.11, Surface Resistance Measurement of Static Dissipative Planar Materials[2]

ANSI/ESD STM4.1 – Worksurfaces, Resistive Characterization[2]

ASTM D 257, Standard Test Methods for Direct Current (DC) Resistance or Conductance of Insulating Materials[3]

ASTM D 991, Standard Test Method for Rubber Property-Volume Resistance of Electrically Conductive and Antistatic Products[3]

4.0 DEFINITIONS

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ELECTRICAL HAZARD REDUCTION PRACTICES SHALL BE EXERCISED AND PROPER GROUNDING INSTRUCTIONS FOR EQUIPMENT SHOULD BE FOLLOWED.

[2] EOS/ESD Association, Inc., 7900 Turin Road, Bldg. 3, Rome, NY 13440, 315-339-6937, www.esda.org

[3] ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA, 215-299-5400