

ANSI/ESD STM97.1-2015

ESD Association Standard Test Method

ANSI/ESD STM97.1-2015

Revision of ANSI/ESD STM97.1-2006

*For the Protection of Electrostatic
Discharge Susceptible Items*

*Footwear/Flooring System –
Resistance Measurement in
Combination with a Person*



*Electrostatic Discharge Association
7900 Turin Road, Bldg. 3
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*An American National Standard
Approved July 8, 2015*

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

***Footwear/Flooring System –
Resistance Measurement in
Combination with a Person***

Approved July 1, 2015
ESD Association



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(This foreword is not part of ESD Association standard test method ANSI/ESD STM97.1-2015.)

FOREWORD

This standard test method¹ is intended to provide test methods for measuring the resistance of floor materials, footwear and personnel, together as a system. This standard test method covers all floor materials used to control electrostatic discharge (ESD) including floor mats, floor coverings, coatings, paints, and floor finishes, together with footwear.

This standard test method is limited to defining procedures for measuring electrical resistance through personnel in combination with floor materials and footwear. This standard test method provides data that is relevant during qualification testing or for testing on installed or applied material.

Electrical resistance is one property that can be used to evaluate the electrostatic characteristics of floor materials. However, resistance does not fully characterize these materials. An additional property to be considered in the selection and use of floor materials includes charge accumulation. Refer also to ANSI/ESD STM97.2, Footwear/Flooring System - Voltage Measurement in Combination with a Person.

A common source of electrostatic charge in a work environment is the separation of foot or caster from the floor, resulting in the generation of electrostatic charge that can accumulate on personnel and equipment. The effect of this generation and accumulation of electrostatic charge can be minimized with appropriate selection or treatment of the floor material. To effectively control electrostatic discharge on personnel and equipment, floor materials shall be used in combination with ESD controlled footwear or other grounding devices.

A floor material which is conductive enough to discharge an object may also pose a safety hazard. The work performed on the floor material often entails the use of tools and test instruments which operate at voltages high enough to cause electrical shock. The presence of a floor material tested using the methods described in this document will not guarantee personnel safety.

This document was originally designated ESD STM97.1-1999 and approved on February 7, 1999. ANSI/ESD STM97.1-2006 is a reaffirmation and re-designation of ESD STM97.1-1999 and was approved on February 26, 2006. ANSI/ESD STM97.1-2015 is a revision of ANSI/ESD STM97.1-2006 and was approved on September 2, 2012.

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 **reproducible test** results.

At the time ANSI/ESD STM97.1-2015 was prepared the 97.0 Floor Materials and Footwear Subcommittee had the following members:

Dale Parkin, Chair Seagate Technology		
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Ken Dille Red Wing Shoe Co.	Steve Fowler Fowler Associates	Randy Hoffman Texas Instruments
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