

ANSI/ESD STM4.2-2012

ESD Association Standard Test Method

ANSI/ESD STM4.2-2012

Reaffirmation of ANSI/ESD STM4.2-2006

*For the Protection of Electrostatic
Discharge Susceptible Items*

*ESD Protective Worksurfaces –
Charge Dissipation Characteristics*



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7900 Turin Road, Bldg. 3
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*An American National Standard
Approved April 23, 2012*

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

***ESD Protective Worksurfaces –
Charge Dissipation Characteristics***

Approved February 12, 2012
ESD Association



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FOREWORD

The test methods outlined in this standard were developed to further characterize the ability of ESD Control worksurfaces to dissipate static charge from conductive objects placed on them. Although the resistive properties of worksurfaces give the user a "relative" indication of their ability to dissipate charge, other factors such as contact resistance between the object and the worksurface, worksurface hardness and surface finish, and ambient relative humidity also affect their charge dissipation efficiency.

This standard test method¹ provides for a worksurface test apparatus and conductive charged object configuration designed to give a better perspective as to the charge dissipation characteristics of worksurfaces based on the factors mentioned above. It is intended for qualification purposes only and should only be used in a laboratory environment. Specific environments are required for both conditioning and testing of samples.

This document was originally designated ESD STM4.2-1998 and approved on February 8, 1998. ANSI/ESD STM4.2-2006 was a reaffirmation of ESD STM4.2-1998 and was approved on February 26, 2006. ANSI/ESD STM4.2-2012 is a reaffirmation of ANSI/ESD STM4.2-2006 and was approved on February 12, 2012. Three editorial changes were made from the 2006 version: added boilerplate Personnel Safety section; classified Annex A as informative; and classified Annex B as normative.

At the time ANSI/ESD STM4.2-2012 was prepared, the 4.0 Worksurfaces Subcommittee had the following members:

	Dale Parkin, Chair Seagate Technology	
Brent Beamer 3M	Kevin Duncan, TAS Rep Seagate Technology	Robert Vermillion RMV Technology Group, LLC.

At the time ESD STM4.2-1998 was prepared, the 4.0 Worksurfaces Subcommittee had the following members:

	Dale Parkin, Chair IBM	
Brent Beamer Static Control Components	Larry Burich Lockheed-Martin	Larry Green USAF
Tim Jarrett Guidant Corp.	William Klein K&S Laboratories	Ron Schwartz Stanley Storage Systems
	Shane Wooldridge Kewaunee Scientific	

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** result.

The following individuals made significant contributions to ESD STM4.2-1998:

Ben Baumgartner Lockheed-Martin	Dave Deigan AFM Inc.	Steve Gerken USAF
Capt. Victoria Gerken USAF	Ron Gibson Celestica	Jim Horvat USAF
	Ron Johnson Intel	