

ESD TR53-01-06

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ESD Association Technical Report

*for the Protection of Electrostatic
Discharge Susceptible Items*

*Compliance Verification of ESD Protective
Equipment and Materials*



*Electrostatic Discharge Association
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Foreword

This technical report describes the test methods and instrumentation that can be used to periodically verify the performance of ESD protective equipment and materials. After ESD protective equipment and materials are installed and in their actual use locations, these compliance verification test methods are recommended to provide a baseline for comparison with future compliance verification tests. The objective of these test methods is to identify if significant performance changes in ESD equipment and materials have occurred over time.

The wide variety of ESD protective equipment and materials, and the environment in which they are used, may require test setups different from those described in this technical report. Users of this technical report may need to adapt the test method and setups (as required) to produce meaningful data for their own application. Organizations who perform these tests will also need to determine the time interval between compliance verification based on how critical the ESD protective equipment and materials are to their static control program.

All test methods in this document are based on current standards, standard test methods and standard practices currently published by the ESD Association.

This technical report was prepared by the 53.0 Compliance Verification Subcommittee. At that time the 53.0 Compliance Verification Subcommittee had the following members:

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PURPOSE

The purpose of this technical report is to provide periodic verification test methods and troubleshooting guidance for ESD protective equipment and materials to assist the user when complying with the Compliance Verification Plan Requirements of ANSI/ESD S20.20.

SCOPE

This document describes periodic verification testing for the following ESD Protective Equipment and Materials:

- Grounding / Bonding Systems
- Worksurfaces
- Wrist Straps
- Constant Monitors
- Footwear
- Flooring
- Personnel Grounding with Garment
- Garments
- Air Ionizers
- Seating
- Mobile Equipment (Carts)
- Packaging

PERSONNEL SAFETY

The procedures and equipment described in this document may expose personnel to hazardous electrical conditions. Users of this document are responsible for selecting equipment that complies with applicable laws, regulatory codes and both external and internal policy. Users are cautioned that this document cannot replace or supersede any requirements for personnel safety. Ground fault circuit interrupters (GFCI) and other safety protection should be considered wherever personnel might come into contact with electrical sources. Electrical hazard reduction practices should be exercised and proper grounding instructions for equipment must be followed.