

# ESD Socks

## For Use with ESD Footwear

### Description

Ensure that you are electrically connected to ground by wearing conductive ESD socks with your ESD shoes. ESD shoes rely on moisture from the skin to soak into standard socks to make them conductive enough to create a path-to-ground. This process varies between people and weather environments. There may be times when a person is insulated from the ESD shoe and in danger of creating an ESD event. Conductive hotspots are woven into ball and heel of socks to ensure a strong connection to the skin. Available in small, medium and large.

### **Why Use ESD Socks?**

The combination of ESD flooring and footwear can be an effective way to ground personnel to control electrostatic discharges when using a wrist strap is not practical. For this system to be effective, the ESD flooring and footwear must have a low enough resistance to allow the voltage from the operator to flow to ground. There also must be a good contact between the person and the ESD footwear.

While ESD shoes may be made with conductive materials, they require a layer of perspiration in the sock to provide a path-to-ground. This is a concern because there are many variables between people. Per ESD Handbook TR20.20 section 5.3.3.5 Common Testing Problems "Occasionally, footwear may indicate a high resistance...[A contributor being] heavy or insulative socks, or the absence of a sweat layer due to differences in temperature between the inner surfaces of the shoes and the wearer's feet."

You may see inconsistent resistance measurements from person to person, especially during colder months when employees wear heavier socks and sweat less. One person may fail a test at the start of a shift, and pass ten minutes later after a sweat layer is formed.

How much time is wasted waiting for shoes to pass a test? Or worse, how many sensitive items does a person come into contact with before their ESD shoes are truly acting as a path-to-ground?



### Product Specifications

Material: Polyester, Spandex and Conductive Yarn  
Color: White and Gray  
Resistance: Less than  $10^3$  on gray heel and toe hotspots.  
Sizes:  
SC0024: Small - Up to Size 8  
SC0026: Medium - 8-12  
SC0028: Large - 12+

### Product Number

<u>Item Number</u>	<u>Description</u>
SC0024	ESD Sock, Small - Up to Size 8
SC0026	ESD Sock, Medium - 8-12
SC0028	ESD Sock, Large - 12+

This document is prepared for our customers as a service, and is to the best of our knowledge true and accurate. However, it is understood and agreed by the users of this document that we will accept no liability for the conclusions reached. Users of this document may therefore wish to perform additional testing before determining that products mentioned are suitable.



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