

## **Charge Comparison**

Body Voltage Generated on ESD Flooring Materials using Different Types of Footwear

Information in the table below is based on tests performed by an independent lab and show body voltage generation for different types of ESD flooring materials. Tests showed that surface conductivity greatly impacts the performance of ESD epoxy coatings.

MATERIAL	<b>Regular Footware</b>	<b>ESD Heel Straps</b>	<b>Conductive Shoes</b>
	Generation 1	Generation 2	Generation 3
Conductive vinyl interlocking floor Tile A PU surface coating	>4000 volts	827 volts peak	62 volts peak
Conductive vinyl interlocking floor Tile B with no PU coating	>2500 volts	33 volts peak	15 volts peak
Conductive vinyl tile (12" x 12" 3 mm thickness)	>3500 volt	10 volts peak	12 volts peak
Static-dissipative carpet tile squares 500 mm x 500 mm)	< 400 volts	<25 volts	< 25 V peak
Conductive rubber tile (24" x 24" 2 mm thickness)	< 400 volts	<10 volts	< 10 V peak
Static-dissipative epoxy, Generation 2 Buried conductive layer	> 3000 volts	350 volts peak	18 volts peak
Conductive epoxy coating, Generation 2 Buried conductive layer	> 3500 volts	329 volts peak	35 volt peak
Conductive epoxy coating, Generation 3 No bured layer, surface fully conductive	> 3500 volts	23 volts peak	>25V peak

Please note:

Flooring should always be evaluated based on charge generation testing performed on flooring in combination with footwear. ANSI/ESD S20.20 specifies maximum charge generation of 100V.

Tests performed by Fowler Associates, Inc.