

Worksite problems such as call interruptions and equipment failure can be costly and frustrating, since the causes of these problems—and the appropriate solution—aren't always clear. Usually, the culprit is flooring with the wrong specs. Here are some basics to keep you grounded:

What is the issue at hand?

Electricity needs to move, but "static charges" in the workplace don't naturally return to the earth unless they are grounded. Without the proper static-conductive flooring, static charges transfer from people to equipment like circuit boards, servers, and networked computers. The problem is, these devices can't always withstand the electrical surges. And without grounding, the consequences can be disastrous.

What is static electricity and ESD?

Static electricity results from contact and separation between objects. When a person's shoe contacts flooring, the body becomes charged. When the charged person touches other objects, electrostatic discharge (ESD) occurs.

How do you know if static is a problem in the work area?

Most ESD events are invisible. While people can't feel static discharges below 3,500 volts, electronic equipment can be harmed by discharges as low as 10 volts. Without the right flooring, you don't realize there's a problem until it's too late. And to prevent future problems, your static-conductive flooring needs to perform as long as your work area is operational.

What is static-control flooring and why is it so important?

Correctly specified flooring—rubber, tile, carpet, or epoxy—controls static discharges on personnel and equipment. These flooring solutions prevent static discharge from harming sensitive electronics and compromising mission-critical operations. They ensure safe, ongoing operations with no interruption.

What problems are caused by static discharge?

Problems range from inconveniences to crises. These include unintended signals to equipment, data corruption, dropped

calls, damage to electronic components, shutdowns, hearing loss, explosions, and fires.

Where is static-conductive flooring needed?

Zero-tolerance ESD protection is required in all electronics manufacturing and test facilities; these environments also require special shoes and wrist straps. Fault-tolerant static control is also crucial in end-user environments, including mission-critical operations like 9-1-1 call centers, data centers, hospitals, flight control towers, and server rooms.

What is the difference between conductive, dissipative, and standard flooring?

With static conductive floors, charges ground rapidly and safely before they can accumulate.

In contrast, research shows that static dissipative flooring drains charges off people too slowly to be effective. With standard, static-generating flooring, static charges are trapped in people until they are released by touching other objects.

What other technical information is important for you to know?

The technical aspects of this business can be overwhelming. But basic information—on standards, terminology, testing, applications, vendors, etc.—is readily accessible on our web site, which contains a wealth of educational material. For a list of key industry standards and specifications, visit www.esda.org. The more you know about static control, the more confident you'll be about your flooring choice.

Who is involved in flooring choices and installation?

Staticworx works with contractors and your team of architects, engineers, installers, electricians, and facility managers. We provide start-to-finish planning, implementation, and follow-up.

