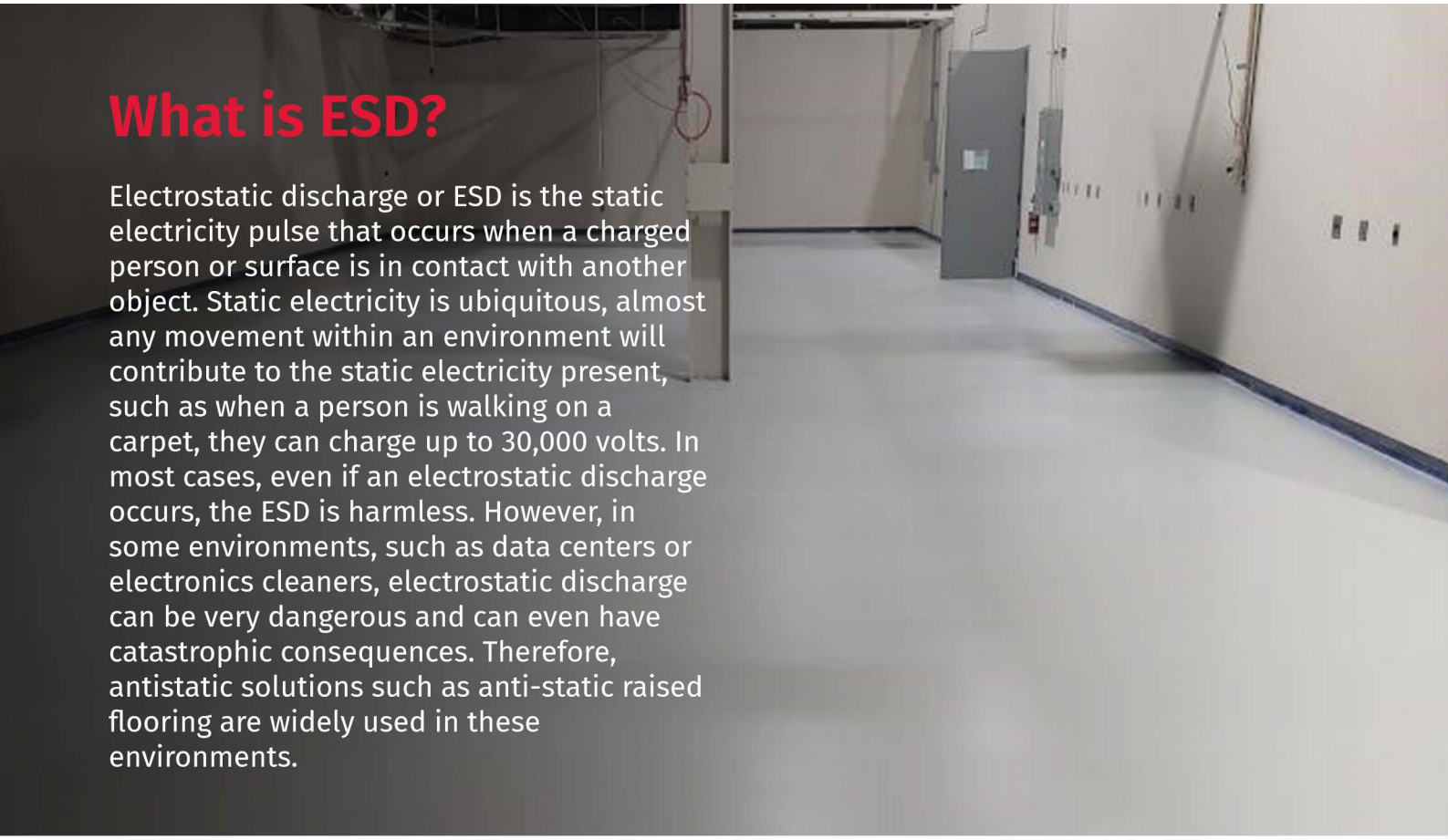
ELECTRO STATIC COATINGS

DEX-O-TEX®

Pharmaceutical industry
Munitions and fine particle production plants
Laser and optical facilities
Hospitals and healthcare centers
Electronics manufacturing
Computer data centers
Server rooms
Chemical plants
Automobile manufacturing
Aerospace and avionics



What is ESD?

Electrostatic discharge or ESD is the static electricity pulse that occurs when a charged person or surface is in contact with another object. Static electricity is ubiquitous, almost any movement within an environment will contribute to the static electricity present, such as when a person is walking on a carpet, they can charge up to 30,000 volts. In most cases, even if an electrostatic discharge occurs, the ESD is harmless. However, in some environments, such as data centers or electronics cleaners, electrostatic discharge can be very dangerous and can even have catastrophic consequences. Therefore, antistatic solutions such as anti-static raised flooring are widely used in these environments.

What is Anti-Static Flooring?

The state in which the production of static electricity is reduced during contact and separation with other materials is referred to as being "antistatic."

Installing anti-static flooring is a crucial first step in ensuring the safety of employees and visitors because it grounds the charge and prevents ESD from building up and discharging into the surroundings. The anti-static floor may be electro statically conductive or static dissipative.

What is Conductive Floor?

25,000 ($2.5e^4$)to 1 million ($1e^6$) ohms

A floor with conductive flooring has a grounding resistance of less than 1.0×10^6 ohms and is intended to prevent, mitigate, dissipate, conduct, remove, or ground excessive static electricity from the body, furniture, moving carts, and equipment.

What is Static Dissipative Floor?

One million ($1e^6$) to one billion ($1e^9$) ohms

Static dissipative flooring is the floor material with a grounding resistance of less than 1×10^9 ohm but greater than 1×10^6 ohm, which is also used for the mitigation of electrostatic discharge (ESD).

Choosing an ESD or CD Floor?

- OHMS Resistance performance requirements
- Floor structure requirements
- Installation methods
- Construction Requirements
- End Use Environments

ANSI / ESD S 20.20

This standard covers the requirements necessary to design, establish, implement, and maintain an electrostatic discharge (ESD) Control Program for activities that manufacture, process, assemble, install, package, label, service, test, inspect, or otherwise handle electrical or electronic components, plus assemblies and equiptment susceptible to damage by electrostatic discharges greater than, or equal to 100 volts human body model (HBM). This standard is also harmonized with IEC 61340-5-.

Electro-Flor 100 ESD

Range: One million ($1e^6$) to one billion ($1e^9$) ohms

Electro-Flor 100 CD

Range: 25,000 ($2.5e^4$)to 1 million ($1e^6$) ohms

Electro Flor N CD

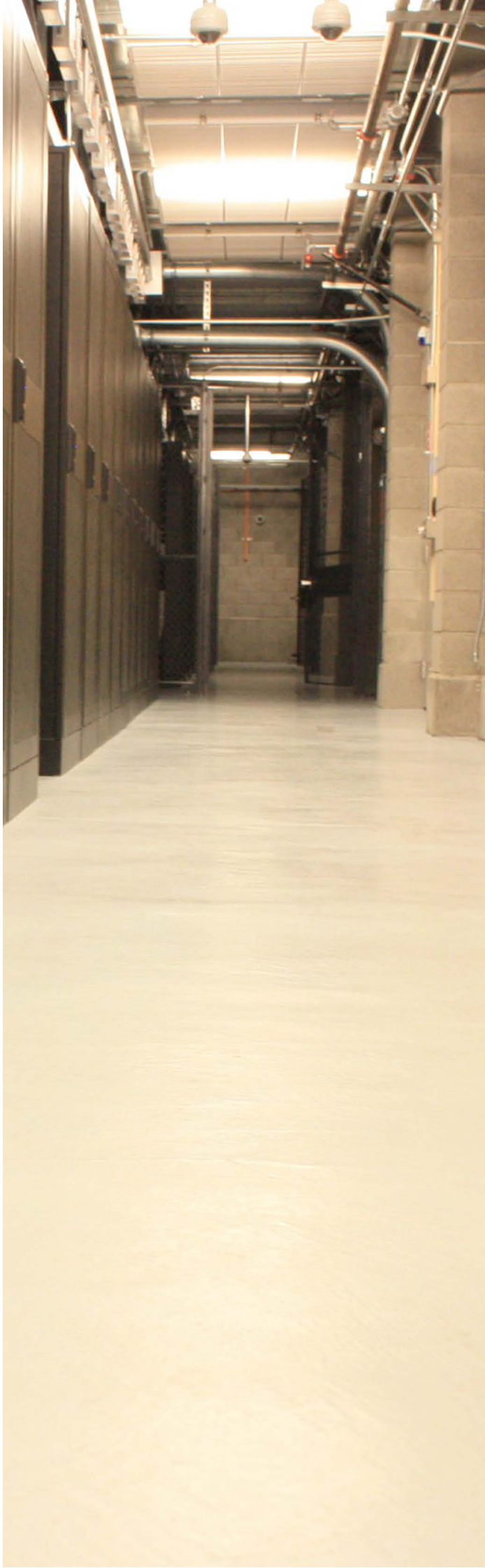
Range: 25,000 ($2.5e^4$)to 1 million ($1e^6$) ohms

Advantages:

- Sanitary
- Excellent Abrasion Resistance
- Chemical Resistance
- Monolithic, Seamless
- More Durable than tile or sheet goods (when exposed to forklift traffic)
- CDPH 1350 Approved for Low Emissions
- Health Product Declaration Certificate
- Dissipates 5,000 Volt charge to zero in 0.01 seconds

Where to Use:

- Electronics Manufacturing
- Server Farms
- Clean Rooms
- Data Processing Centers
- Military / Aerospace
- Laboratories
- AGV Warehouses
- Hazardous Industries
- Munition & Explosive Areas



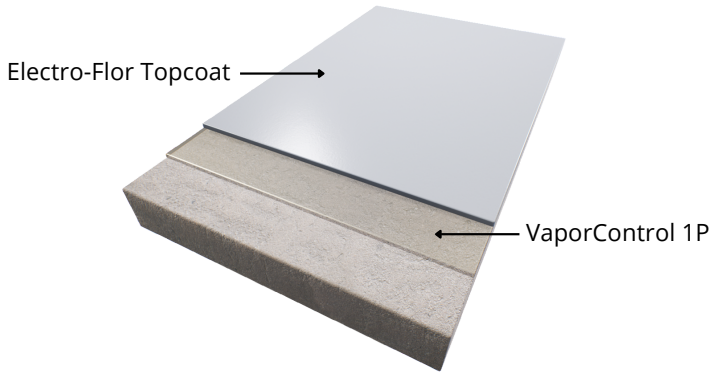
Electro-Flor 100 ESD

Electro Static Dissipative (ESD) Flooring System

Dex-O-Tex Electro-Flor 100 ESD is a fluid-applied, high solids epoxy, monolithic coating, and is electrically active within resistance range requirements for a “static dissipative” flooring system.

The resistance range for Electro-Flor 100 ESD is one million ($1e^6$) to one billion ($1e^9$) ohms, as tested in accordance with ESD Association Standard 7.1.

Typical Thickness: 28 - 48 Mils



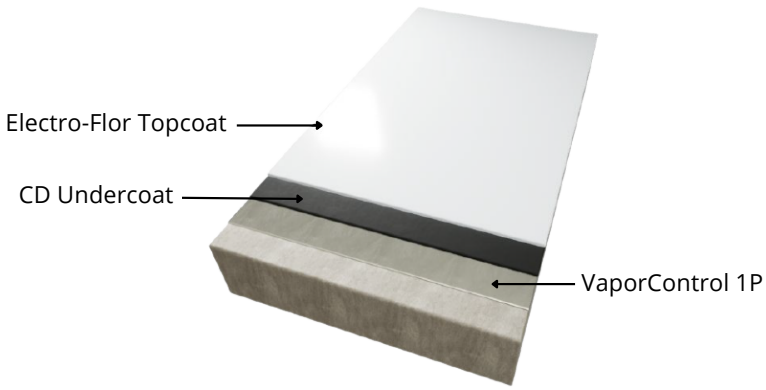
Electro-Flor 100 CD

Protective Conductive (CD) Flooring System

Dex-O-Tex Electro-Flor 100 CD is a fluid applied, high solids, monolithic flooring system with a conductive undercoat.

Conductivity is within the range of 25,000 ($2.5\ e^4$) to 1 million ($1\ e^6$) ohms resistance, as tested in accordance with ESD Association Standard 7.1

Typical Thickness: 32 -36 Mils



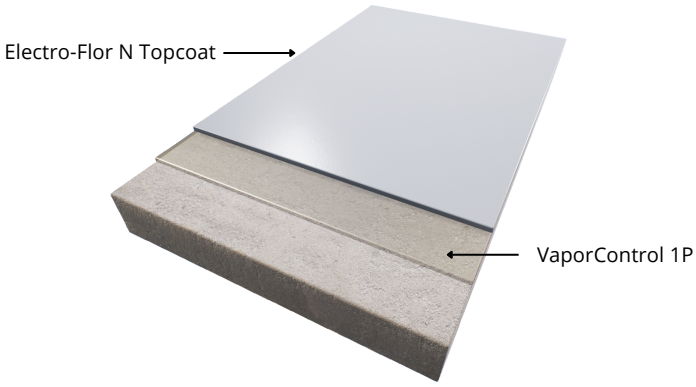
Electro-Flor N 100 ESD

Electro Static Dissipative (ESD) Novolac Flooring System

Dex-O-Tex Electro-Flor N 100 ESD is a fluid-applied, high solids epoxy, monolithic coating, and is electrically active within resistance range requirements for a “static dissipative” flooring system.

The resistance range for Electro-Flor 100 ESD is one million ($1e^6$) to one billion ($1e^9$) ohms, as tested in accordance with ESD Association Standard 7.1.

Typical Thickness: 28 - 48 Mils



Electro Flor N CD

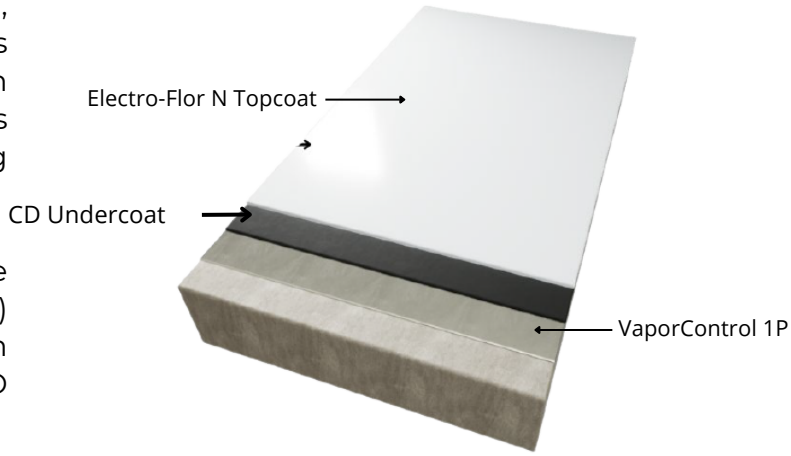
Protective Conductive (CD) Flooring System

Dex-O-Tex Electro-Flor N CD is a fluid applied, monolithic, novalac epoxy flooring, and is electrically active within resistance range requirements for a “conductive” flooring system.

Conductivity is within the range of 25,000 ($2.5\ e^4$) to 1 million ($1\ e^6$) ohms resistance, as tested in accordance with ESD Association Standard 7.1.

Typical Thickness 30 Mils*

*Can be applied over different basecoats to achieve the desired thickness.



Electro-Flor Color Chart

ESD & Conductive

413 Speedway Gray

402 Dark Gray

431 Bright Gray

304 Sandpiper Beige

Consult your Dex-O-Tex Representative for more details.

The actual colors can result in small deviations from the color chart due to the nature of the element that makes this Static Dissipative or Conductive.

Printed color charts approximate actual color. Final color approval should be made from physical sample.

Final color appearance is affected by lighting, surface texture, and method of application.