

# ESD-KOTE

## THERMOSET POWDER COATINGS

ESD-KOTE coatings are engineered to safeguard sensitive electronic devices against electrostatic discharge. By forming a protective barrier that efficiently dissipates static charges, these coatings help maintain the reliability and security of electronic components. Application requires a conductive substrate that is properly grounded. Beyond ESD protection, ESD-KOTE delivers outstanding durability, hardness, and excellent overall physical performance.



## OVERVIEW

# Electrostatic Discharge Thermoset Powder Coatings.

Electrostatic discharge (ESD) issues are commonly encountered in the electronics industry, where products can sustain damage due to electrostatic charges. Even a mere 100 volts can potentially harm an electronic component. To mitigate these risks, it is essential to use electro-dissipative coatings as a protective barrier. ESD-KOTE is a patented thermoset powder coating solution designed to minimize the risk of shock by continuously conducting and

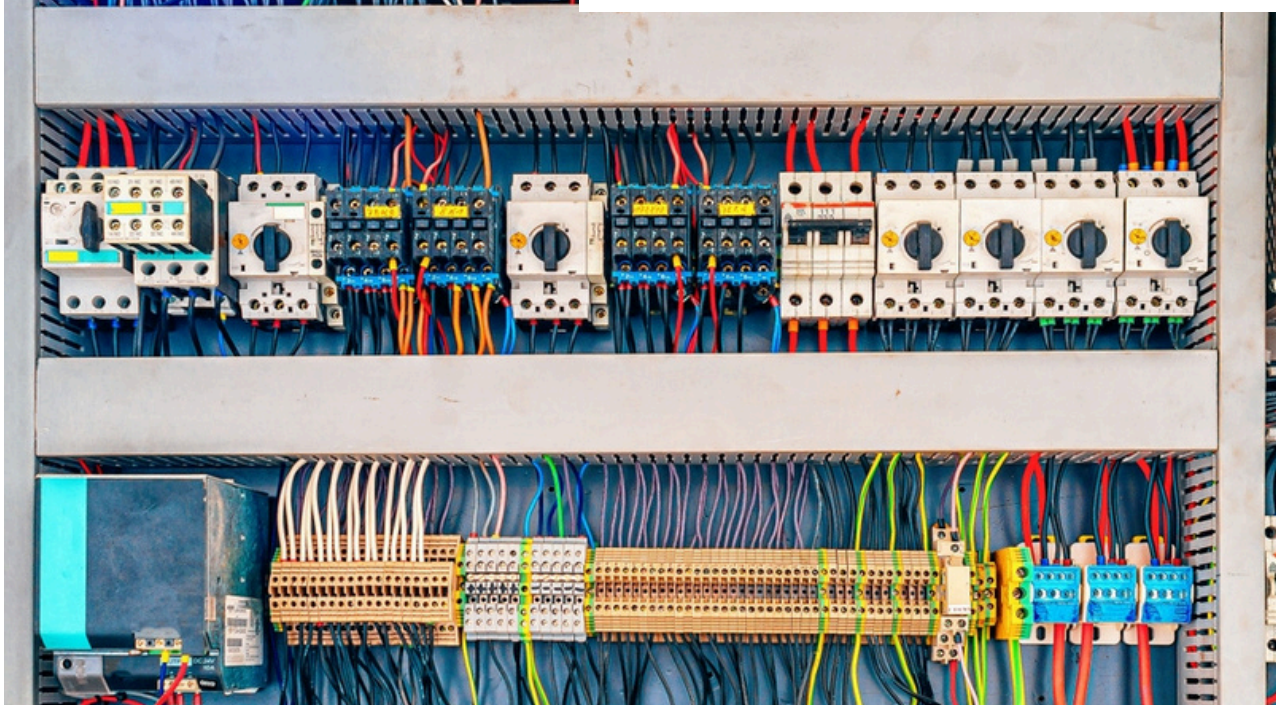
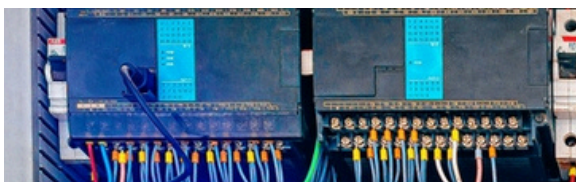
dissipating static electricity on surfaces while slowing the charge transfer rate. ESD-KOTE is created by blending an electrically conductive pigment with a non-conductive resin binder. The binder ensures the paint's cohesion and offers adhesion, while the conductive filler establishes the electrical pathway. This coating effectively channels static electricity to a connected ground, preventing sparks and protecting electronic components during use or storage.

## MAIN FEATURES

- **Static Dissipation** – Prevents static buildup.
- **ESD-Safe Resistivity** – Meets  $10^5$ – $10^9$  ohms range.
- **Durable** – Resists wear and impact.
- **Chemical Resistant** – Handles cleaners and solvents.
- **Long-Lasting Performance** – Maintains ESD properties over time.
- **Finish Options** – Available in smooth or textured.
- **Low-VOC** – Eco-friendly and solvent-free.
- **Color Choices** – Custom colors available.
- **Safe for Sensitive Areas** – Ideal for electronics and cleanrooms.

## TYPICAL APPLICATIONS

- **Electronics Manufacturing** – Server racks, PCB handling trays, circuit board enclosures
- **Data Centers & IT** – Equipment housings, server cabinets, access flooring
- **Cleanrooms & Laboratories** – Workbenches, shelving, carts, and storage systems
- **Aerospace & Defense** – Avionics housings, radar components, control panels
- **Automotive** – EV battery enclosures, electronic modules, diagnostic equipment
- **Telecommunications** – Base station hardware, antenna enclosures, switchgear
- **Medical Devices** – Imaging equipment casings, electronic diagnostic units
- **Industrial Automation** – Control panels, robotic arms, static-sensitive equipment housings
- **Semiconductors** – Wafer carriers, component trays, test chambers
- **Consumer Electronics** – Game consoles, routers, smart home device casings





# OUR SOLUTIONS

We offer specialized Electrostatic Discharge (ESD) thermoset powder coatings designed to protect sensitive equipment and components in environments that are sensitive to static. Our solutions combine effective static control with durable finishes, ideal for applications in electronics, telecommunications, cleanrooms, and industrial settings.

# TECHNICAL PROPERTIES

Essential technical details are outlined below. Full Technical Data Sheet (TDS) available upon request.

GLOSS	5 to 90
FILM THICKNESS	1.5 to 3.0 mils
HARDNESS	>H
SURFACE RESISTIVITY	105 to 109 ohms at 100v
COVERAGE	125 to 145 ft <sup>2</sup> (11.5 – 13.15 m <sup>2</sup> )
BAKING SCHEDULE	4-7 minutes at 400°F (204°C) 6-10 minutes at 375°F (190°C) 8-16 minutes at 350°F (177°C)



## FORMULATING THE RIGHT MIX.

Since 1976, the Protech Group has been developing and manufacturing coatings, paints, and specialty materials. Through quality and innovation, we formulate the right mix to protect and enhance what matters most to our customers. Protech Group products are manufactured in more than 20 sites worldwide. We serve our customers in countless markets and industries, including construction, infrastructure, transportation, consumer goods, and healthcare.



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