

# **CUSTOM CONDUCTIVE FORMULATIONS**

Techmer PM's Electrafil<sup>®</sup> product line includes dissipative, conductive, and electromagnetic shielding compounds that are expertly formulated to protect sensitive devices from electromagnetic (EMI) radiation.



# IF YOU DREAM IT, WE ENABLE IT.

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# ELECTRAFIL®



Electrafil<sup>®</sup> is a cost-effective solution to address the need for electrical conductivity, static charge control, or EMI/RFI shielding. Techmer PM can leverage the benefits of Electrafil in any thermoplastic resin.

Electrostatic discharge (ESD) protection is offered by compounds filled with electrically conductive carbon powders, carbon fibers, stainless steel and other advanced materials. These materials are available in various resins, depending on physical, mechanical, color, and thermal requirements.

Products can be designed to meet a variety of ESD standards.

## **APPLICATIONS**

- Automotive: Fuel delivery systems
- Business Equipment: Document handling
- Data Storage: HDD process
  trays
- Medical: Pipettes, diagnostic, monitoring, test, and measurement devices
- Material Handling: Totes, carts, conveyor systems
- Providing surface conductivity for electroless painting and plating processes



# KEY CHARACTERISTICS

- Conductive thermoplastics exhibit a range of properties, including electrical conductivity, good chemical resistance, excellent toughness, and low wear
- Commonly used in automotive, electrical, and electronic applications. This includes instrument panel bezels and fuel filter housings in automotive products, packaging and shipping containers, business machine covers and housings, among other electric and electronic products.
- May also be used in applications where very high mechanical performance capabilities are needed without regard for electrical properties

## **TYPICAL FILLERS**

- Carbon fiber
- Carbon powder
- Coated fibers
- Stainless steel fiber
- Multi-wall carbon nanotubes
- ICPs

## **BENEFITS**

- Prevention of static charge build
- Mitigate risk and protect devices, and systems from ESD discharge events
- Attenuate electromagnetic energy to achieve electromagnetic compatibility (EMC)

# SURFACE RESISTIVITY (Ω/Sq)





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