

# A Technology Breakthrough in Conductive Thermoplastics for High Performance Shielding



## Conductive Plastic Shielding Solutions

- The first conductive plastic components developed specifically for high performance EMI shielding and grounding applications
- An altogether new approach – not an adaptation of ESD materials
- Dense dispersion of randomly oriented, fully engaged long fibers produces maximum conductivity throughout the molded part
- Proprietary, 3-step technology produces excellent dispersion:
  - unique base material production
  - uniform fiber length compounding
  - specialized molding technology



## Critical Differences

between **PREMIER Conductive Plastic Shielding Solutions** and traditionally compounded or dry blended “conductive plastic” materials:

<b>Traditional Compounding</b>	<b>Short Conductive Fibers</b>	<b>Pelletizing</b> • Fibers Shortened to Pellet Length, about 3–4 mm	<b>Injection Molding</b> • Fiber Breakdown • Incidental Fiber Contact
<b>Traditional Dry Blending</b>	<b>Short Conductive Fibers</b>	<b>Dry Blending</b> • Inconsistent Mixing • Settling	<b>Injection Molding</b> • Fiber Breakdown • Compromised Fiber Contact • Inconsistent Dispersion
<b>PREMIER™ Conductive Plastic Shielding</b>	<b>PREMIER Long Fiber Process</b>	<b>Proprietary Compounding</b> • Ni-C Fibers in Resin • Predetermined Fiber Length	<b>Specialized Injection Molding</b> • Even Dispersion • Maximum Fiber Integrity and Contact

# Redefining Shielding Performance and Cost Efficiency

- Greater design freedom
- Low system cost
  - Shorten design cycle
  - Shorten supply chain
  - Lower assembly cost
  - Lower component cost
- High performance shielding
- Lightweight and strong, with thin wall capability <0.8 mm (0.030 in.)
- Abrasion and corrosion resistant
- Environmentally acceptable
- Globally available

Premier Conductive Plastic Shielding Solutions are an excellent choice when considering cost effective alternatives to electroless plated plastic and vacuum plated plastic housings and spacers.

Premier is also a simple, economic alternative to multiple soldered-on metal cans and stamped or cast metal shields. With one step installation, easy component reworkability and maximum design flexibility, Premier provides value and performance in a single solution.

**Join the major wireless manufacturers choosing PREMIER Conductive Plastic Shielding Solutions for their products.**

## PREMIER™ materials out-perform traditional “conductive plastic” technology

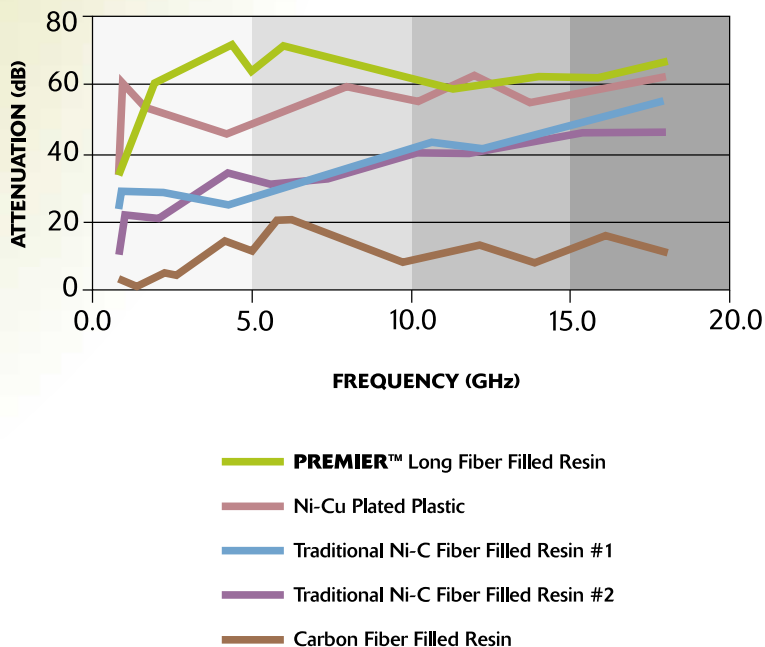
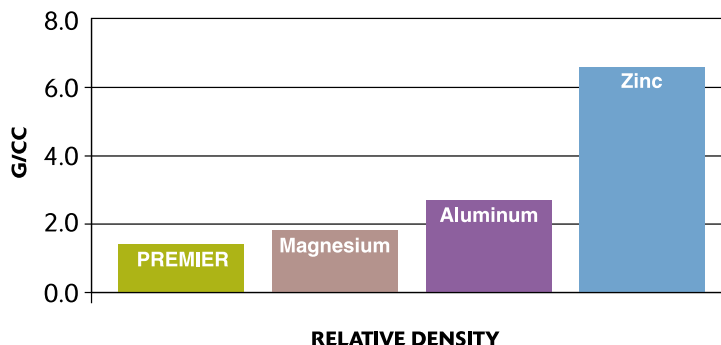


Figure 1: Comparative Shielding Performance (MIL STD 285, modified)

## PREMIER™ Conductive Plastic Solutions should be considered for effective, lightweight replacement of die cast zinc, aluminum and magnesium shields



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