

EMI/RFI Shielding

Why Shielding Coatings

EMI / RFI stands for Electromagnetic Interference (EMI) / Radio Frequency interference (RFI). RFI is a subset of EMI.

All electronic devices create EMI/RFI and all electronic devices are negatively affected by EMI/RFI. As the number of electronic devices in society continues to increase, EMI/RFI sources are becoming more common, and as devices continue to get smaller, their susceptibility to EMI/RFI is increasing. EMI/RFI shielding is therefore a steadily increasing issue in electrical engineering. Most electronic devices can not be sold unless they comply with government (FCC) regulations for electromagnetic compliance (EMC), which limits EMI/RFI emissions and susceptibility.

Metallic enclosures provide natural EMI/RFI shielding; however, most enclosures these days are made of plastic to save money, and non-conductive plastic offers no EMI/RFI protection. Applying MG Chemicals' conductive paint to the inner surface of a plastic electronic enclosure solves this problem easily and economically.

MG Chemicals offers conductive paints utilizing a variety of conductive pigments in a UL approved acrylic binder, each suited to fulfill different customer requirements. Contact us for help in determining which coating is right for you.



Shielding Comparison Table:

Product Code	Carbon (838)	Graphite (839)	Nickel (841)	Silver Coated Copper (843)	Silver (842)
Surface Resistivity (ohm/sq) @ 2 mil	190	28	0.2	0.09	0.05
Color	Dark Grey	Black	Dark Grey	Light Brown	Silver Grey
Constant Service Temperature (°C)	-40 to 120	-40 to 120	-40 to 120	-40 to 120	-40 to 120
Formats Available	Aerosol / Liquid	Liquid	Aerosol / Liquid	Aerosol / Liquid	Liquid
Tack Free	3-5 min	3-5 min	3-5 min	3-5 min	3-5 min
Cure Time @ room Temp.	24 h	24 h	24 h	24 h	24 h
Cure Time @ 65°C	30 min	30 min	30 min	30 min	30 min

For more information on these products, download the TDS at www.mgchemicals.com