

Conductive Spray Paints



Protection against EMI/RFI

MG Chemicals Conductive Spray Paints are acrylic-based conductive paints, packaged in aerosol cans, that are designed for protection against EMI/RFI across a broad frequency spectrum. These easy-to-use 1-part coatings cure quickly and are intended for use on commonly used plastics for PCB enclosures like ABS, Nylon and Polycarbonate. This convenient packaging option allows users to complete proof-of-concept or lower volume runs quickly and economically.

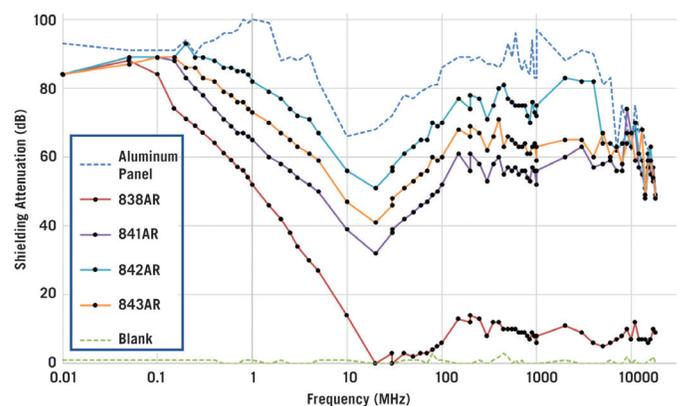
Features & Benefits

- 1-part systems, easy to apply
- 4 options available depending on conductivity requirements
- Excellent adhesion to most plastics
- Does not contain toluene, xylene, or MEK
- Broad frequency range protection

Applications

- Shielding plastic PCB enclosures
- Board-level shielding
- Conductive coating for electro-plating
- Shielding long-range communication devices and satellites

- 838AR-340G** • Carbon conductive paint for low frequency shielding and electrical grounding
- 841AR-340G** • Nickel conductive paint for broad spectrum shielding
- 842AR-140G** • Silver conductive paint for premium EMI protection
- 843AR-340G** • Silver-coated copper conductive paint which balances cost and EMI performance



Conductive Spray Paints



	838AR-340G	841AR-340G	843AR-340G	842AR-140G
UNCURED PROPERTIES				
Conductive filler	Carbon	Nickel	Silver-coated copper	Silver
Format	Aerosol	Aerosol	Aerosol	Aerosol
Color	Black	Dark grey	Light metallic brown	Light grey
Percent solids	15%	57%	31%	61%
Density @ 25 °C [77 °F]	0.84 g/mL	1.34 g/mL	0.99 g/mL	1.38 g/mL
Viscosity @ 25 °C [77 °F]	46 cP	61 cP	87 cP	80 cP
Calculated VOC	587 g/L	470 g/L	404 g/L	361 g/L
Theoretical coverage @ 2 mil (based on 50% transfer efficiency)	1 500 cm ²	2 500 cm ²	3 100 cm ²	680 cm ²
Recoat time	3 min	3 min	3 min	3 min
Cure time @ 22 °C [71.6 °F]	24 h	24 h	24 h	24 h
Cure time @ 65 °C [149 °F]	30 min	30 min	30 min	30 min
CURED PROPERTIES				
Resistivity	0.69 Ω·cm	0.0076 Ω·cm	0.00022 Ω·cm	0.00012 Ω·cm
Surface resistance @ 50 μm	110 Ω/sq	0.60 Ω/sq	0.080 Ω/sq	0.050 Ω/sq
Salt fog resistance @ 35 °C [95 °F], 96 h	Excellent	Excellent	Poor	Excellent
Constant service temperature	-40–120 °C [-40–248 °F]	-40–120 °C [-40–248 °F]	-40–120 °C [-40–248 °F]	-40–120 °C [-40–248 °F]
Adhesion (ABS/PC)	5B	5B	5B	5B
Pencil hardness	H, hard	3H, hard	F, medium	3H, hard
Magnetic class	Diamagnetic	Ferromagnetic	Diamagnetic	Diamagnetic
AVAILABLE PACKAGING				
Net contents	340 g, 442 mL	340 g, 290 mL	140 g, 129 mL	340 g, 400 mL

