

Protection Against EMI/RFI: Durable and Chemically Resistant

MG Chemicals ER series are epoxy conductive paints that are designed for protection against EMI/RFI. They offer superior durability and resistance to solvents compared to other chemistries. These 2-part systems are suitable either in harsh environments with direct chemical exposure or for use on substrates like metal and concrete.

Features & Benefits

- 2-part systems
- Superior adhesion to metals and concrete
- Excellent abrasion resistance
- Enhanced resistance against solvents
- Withstands wave solder temperatures exceeding 260°C

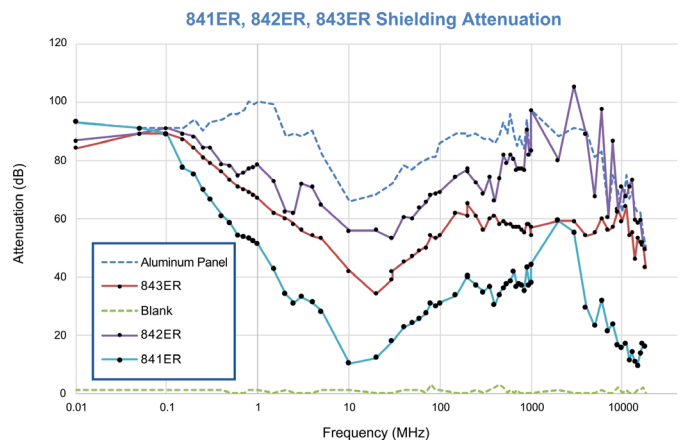
Applications

- Military and commercial electronic enclosures
- Avionic systems
- Shielding paint for flooring
- Conductive coating for electroplating metals
- Shielding in harsh environments like engine hoods

841ER - Nickel conductive paint for electroplating metals

842ER - Silver conductive paint for premium shielding performance

843ER - Silver-coated copper conductive paint which balances cost and EMI performance



Epoxy Conductive Paints



	841ER	842ER	843ER
UNCURED PROPERTIES			
Conductive filler	Nickel	Silver	Silver-coated copper
Format	Liquid	Liquid	Liquid
Color	Grey	Metallic silver	Light metallic brown
Mix ratio by weight	100:25	100:10	100:28
Mix ratio by volume	100:38	100:20	100:36
Percent solids	32%	54%	30%
Density @ 25 °C [77 °F]	1.81 g/mL	1.37 g/mL	1.00 g/mL
Viscosity @ 25 °C [77 °F]	200 cP (Part A) 18 cP (Part B)	60 cP (Part A) 18 cP (Part B)	35 cP (Part A) 9 cP (Part B)
Calculated VOC	1 294 g/L	1 181 g/L	779 g/L
Theoretical coverage @ 2 mil (based on 100% transfer efficiency)	28 000 cm ² /L	25 230 cm ² /L	47 840 cm ² /L
Working time	4 h	4 h	8 h
Recoat time (Plastic)	5 min	5 min	3 min
Cure time @ 22 °C [71.6 °F]	Heat cure only	24 h	Heat cure only
Cure time @ 65 °C [149 °F]	4 h	3 h	4 h
Cure time @ 80 °C [176 °F]	2 h	2 h	2 h
Cure time @ 100 °C [212 °F]	1 h	1 h	N/A
CURED PROPERTIES			
Resistivity	0.03 Ω·cm	0.0002 Ω·cm	0.0018 Ω·cm
Surface resistance @ 50 μm	4.3 Ω/sq	0.13 Ω/sq	0.31 Ω/sq
Salt fog resistance @ 35 °C [95 °F], 96 h	Good	Excellent	Poor
Constant service temperature	-40—150 °C [-40—302 °F]	-40—150 °C [-40—302 °F]	-40—120 °C [-40—248 °F]
Adhesion (ABS/PC)	5B	5B	5B
Pencil hardness	4H, hard	4H, hard	6H, hard
Magnetic class	Ferromagnetic	Diamagnetic	Diamagnetic
AVAILABLE PACKAGING			
Net contents	250 mL (2 metal can kit) 1.17 L (2 metal can kit) 3.25 L (2 metal can kit)	60 mL (2 glass bottle kit) 900 mL (2 metal can kit) 4.24 L (2 metal can kit)	250 mL (2 metal can kit) 810 mL (2 metal can kit) 3.25 L (2 metal can kit)

