

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 and Benefits

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

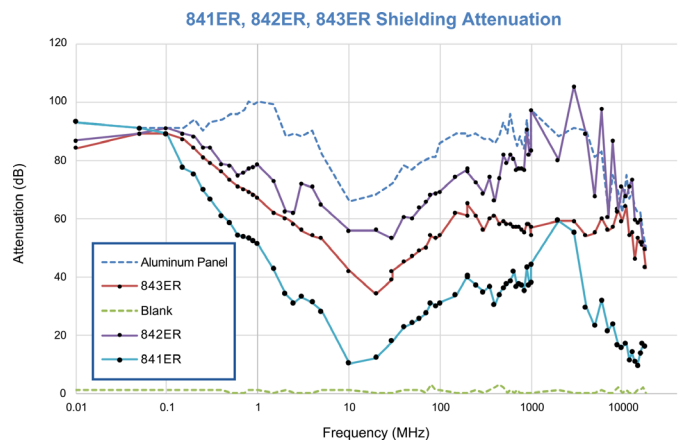
Applications

- 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 Paint



UNCURED PROPERTIES

Conductive filler
 Format
 Color
 Mix ratio by weight
 Mix ratio by volume
 Percent solids
 Density @25 °C [77 °F]
 Viscosity @25 °C [77 °F]
 Calculated VOC
 Working time
 Recoat time (Plastic)
 Cure time @22 °C [71.6 °F]
 Cure time @65 °C [149 °F]
 Cure time @80 °C [176 °F]
 Cure time @100 °C [212 °F]

841ER

Nickel
 Liquid
 Grey
 100:25
 100:38
 32%
 1.81 g/mL
 200 cP (Part A)
 18 cP (Part B)
 1 294 g/L
 4 h
 5 min
 Heat cure only
 4 h
 2 h
 1 h

842ER

Silver
 Liquid
 Metallic silver
 100:10
 100:20
 54%
 1.37 g/mL
 60 cP (Part A)
 18 cP (Part B)
 1 181 g/L
 4 h
 5 min
 24 h
 3 h
 2 h
 1 h

843ER

Silver-coated copper
 Liquid
 Light metallic brown
 100:28
 100:36
 30%
 1.00 g/mL
 35 cP (Part A)
 9 cP (Part B)
 779 g/L
 8 h
 3 min
 Heat cure only
 4 h
 2 h
 N/A

CURED PROPERTIES

Resistivity
 Surface resistance @50 µm
 Salt fog resistance @35 °C [95 °F], 96 h
 Constant service temperature
 Adhesion (ABS/PC)
 Pencil hardness
 Magnetic class

0.03 Ω·cm
 4.3 Ω/sq
 Good
 -40—150 °C
 [-40—302 °F]
 5B
 4H, hard
 Ferromagnetic

0.0002 Ω·cm
 0.13 Ω/sq
 Excellent
 -40—150 °C
 [-40—302 °F]
 5B
 4H, hard
 Diamagnetic

0.0018 Ω·cm
 0.31 Ω/sq
 Poor
 -40—120 °C
 [-40—248 °F]
 5B
 6H, hard
 Diamagnetic

AVAILABLE PACKAGING

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)
 4.25 L (2 metal can kit)

250 mL (2 metal can kit)
 810 mL (2 metal can kit)
 3.25 L (2 metal can kit)

