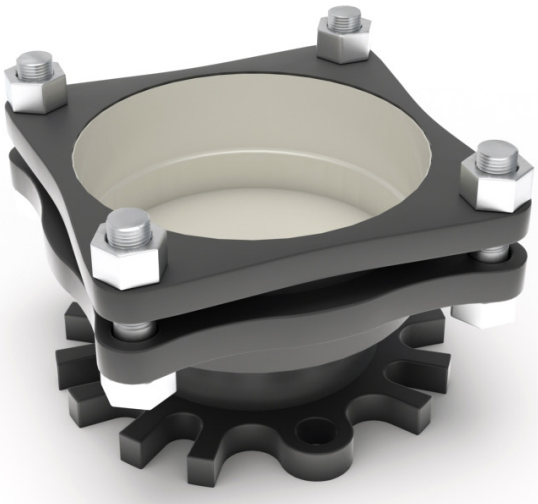
Epoxy Conductive Paints



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

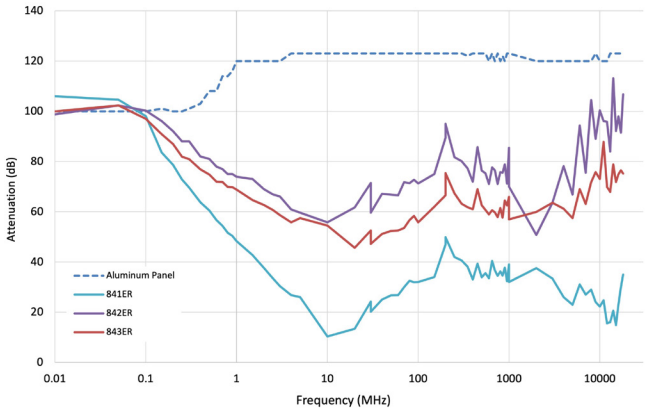
- Military and commercial electronic enclosures
- Avionic systems
- Shielding paint for flooring
- Conductive coating for electroplating metals
- Shielding in harsh environments like engine hoods

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

Shielding Attenuation



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	1.8 g/mL	1.4 g/mL	1.0 g/mL
Viscosity @ 25 °C	200 cP (Part A) 18 cP (Part B)	60 cP (Part A) 22 cP (Part B)	35 cP (Part A) 9.0 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	Heat cure only	24 h	Heat cure only
Cure time @ 65 °C	4 h	3 h	4 h
Cure time @ 80 °C	2 h	2 h	2 h
Cure time @ 100 °C	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, 96 h	Good	Excellent	Poor
Constant service temperature	-40—150 °C	-40—150 °C	-40—120 °C
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)	60 mL (2 glass bottle kit)	250 mL (2 metal can kit)
	1.17 L (2 metal can kit)	900 mL (2 metal can kit)	810 mL (2 metal can kit)
	3.25 L (2 metal can kit)	4.24 L (2 metal can kit)	3.25 L (2 metal can kit)