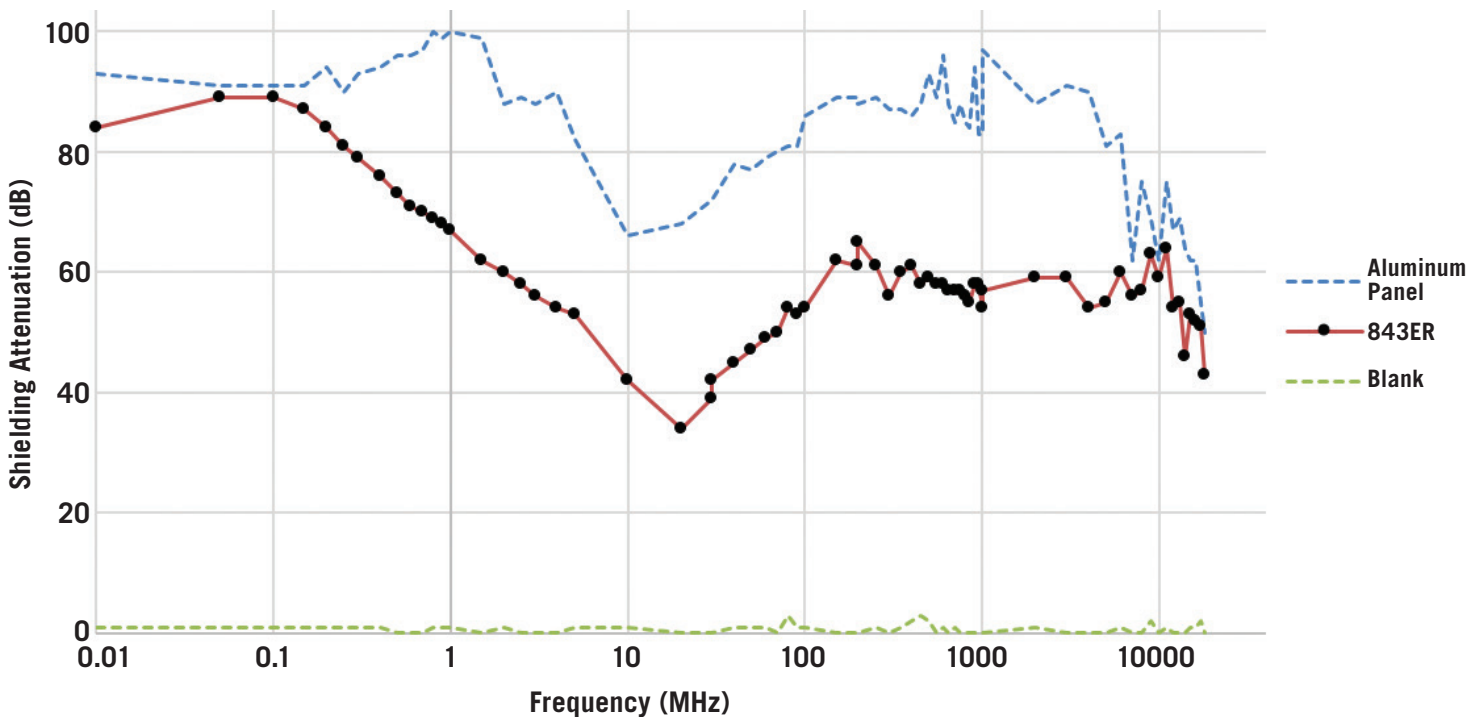


EMI/RFI Shielding — Epoxy Conductive Coatings



- Provides effective EMI/RFI shielding
- Extremely durable: vibration, abrasion, and impact resistant
- Extremely resistant to marring, scratching, and flaking
- Very strong adhesion
- Chemically resistant
- Available in two pigments: nickel and silver coated copper

Epoxy Conductive Coating Shielding Effectiveness



Epoxy Conductive Coating Comparison Chart

Uncured Working Properties	841ER	843ER
Conductive Filler	Ni (nickel)	Ag/Cu (silver coated copper)
Format	Liquid	Liquid
Color	Grey	Metallic brown
Mix ratio by weight	4:1	100:28
Mix ratio by volume	100:38	100:36
Solids Percentage	32%	30%
Density @25 °C [77 °F]	1.64 g/mL	1.0 g/mL
Viscosity @25 °C [77 °F]	200 cP (part A), 18 cP (part B)	35 cP (part A), 9 cP (part B)
VOC Content	49%	76%
Shelf Life	1 y	1 y
Coverage & Application Properties		
Ready to Spray	Yes	Yes
Theoretical HVLP Spray Coverage	≤40 900 cm ² /L	≤31 100 cm ² /L
Working Life @22 °C [72 °F]	4 h	8 h
Re-coat Time @22 °C [72 °F]	5 min	3 min
Ambient Cure Time @22 °C [72 °F]	—	24 h
Elevated Cure Time	30 min @22 °C [72 °F] then 4 h @65 °C [149 °F] then 1 h @22 °C [72 °F]	2 h @80 °C [176 °F] — —
Cured Properties	841ER	843ER
Electrical Properties		
Volume Resistivity	0.1 Ω·cm	0.0018 Ω·cm
Volume Conductivity	11 S/cm	556 S/cm
Surface Resistance @1 coat	72 Ω/sq	0.3 Ω/sq
Surface Resistance @2 coats	21 Ω/sq	0.2 Ω/sq
Attenuation from 0.01 to 18 000 MHz	TDB	60 dB ± 12 dB
Salt Fog Test @ 35 °C [95 °F], 96 h	"	Before: 0.15 Ω/sq After: 0.73 Ω/sq
Thermal Properties		
Constant Service Temperature	-40 to 150 °C [-40 to 302 °F]	-40 to 120 °C [-40 to 248 °F]
Intermittent Temperature Limits	-50 to 165 °C [-58 to 329 °F]	-60 to 130 °C [-76 to 266 °F]
Mechanical Properties		
Adhesion	5B ^{a)}	5B ^{b)}
Pencil Hardness	4H, hard ^{b)}	6H, hard ^{b)}
Magnetic Properties		
Magnetic Class	Ferromagnetic (magnetic)	Diamagnetic (non-magnetic)
Relative Permeability	≥100	<1.0

a) Tested on acrylonitrile butadiene styrene (ABS), polycarbonate (PC), polyvinyl chloride (PVC), glass, and aluminum.

b) Tested on acrylonitrile butadiene styrene (ABS).

Applications and Uses: Our Epoxy Conductive Coatings are suitable for EMI/RFI shielding applications in the military, automotive, aerospace, oil and gas industries. They may also work as conductive bases for electroplating, for creating durable grounded surfaces, or for any process where it is necessary to create a mar-resistant conductive surface.

Super Shield™ Nickel Epoxy Conductive Coating (841ER) provides good shielding, excellent grounding, and good corrosion resistance.

Super Shield™ Silver Coated Copper Epoxy Conductive Coating (843ER) provides excellent EMI/RFI shielding across a broad frequency range.