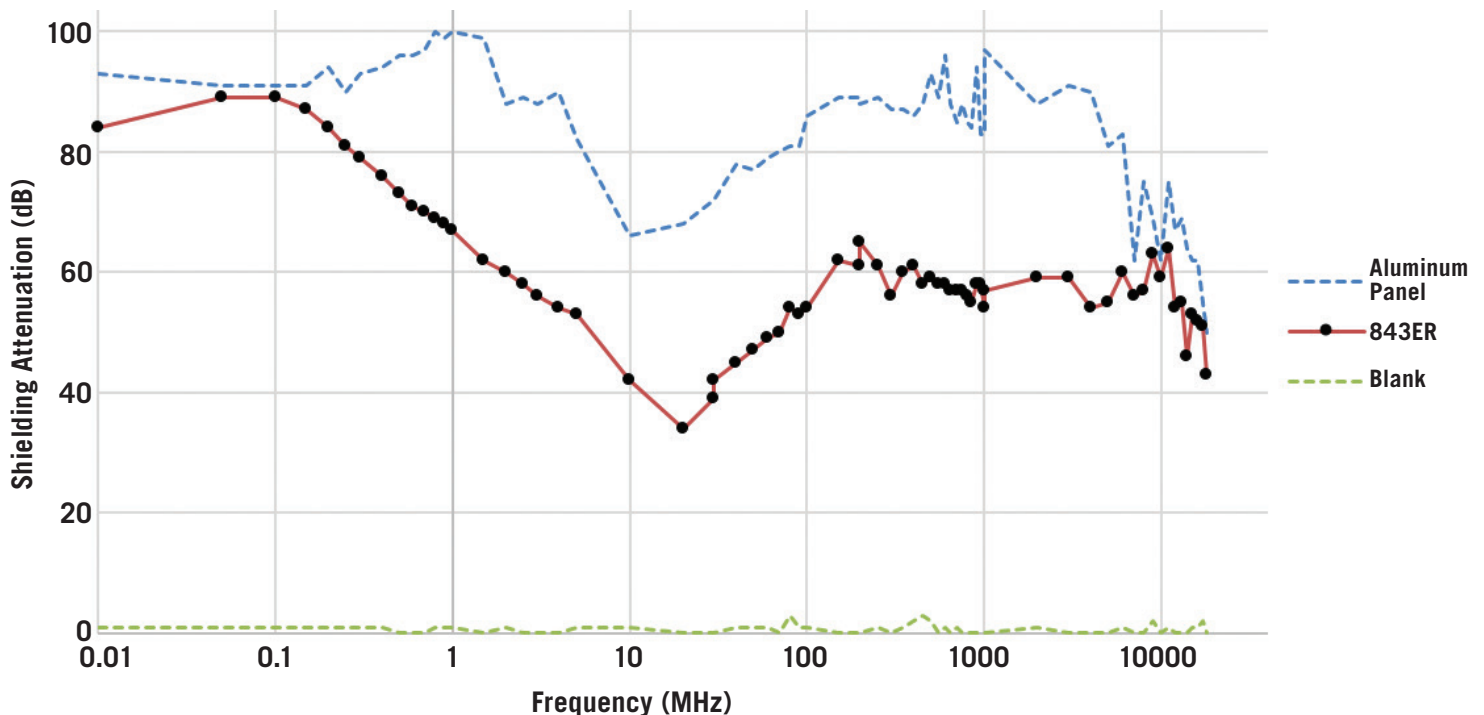


EMI/RFI Shielding — Epoxy Conductive Coatings



- *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.