



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
Recoat 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
@2 coats	21 Ω/sq	0.2 Ω/sq
Attenuation from 0.01 to 18 000 MHz	TBD	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).