



EMI/RFI Shielding Comparison Chart

Coating Chemistry Properties	838	839	841	843	842
Filler Conductor	C (carbon)	C (graphite)	Ni (nickel)	Ag + Cu (silvered copper)	Ag (silver)
Binder	acrylic	acrylic	acrylic	acrylic	acrylic
Paint Type	Lacquer (thermoplastic)	Lacquer (thermoplastic)	Lacquer (thermoplastic)	Lacquer (thermoplastic)	Lacquer (thermoplastic)
Electrical Properties					
Surface resistivity (Ω /sq) at 25 μ m [1 mil] at 50 μ m [2 mil]	<i>Antistatic Grounding</i> 250 Ω /sq 190 Ω /sq	<i>General Use Conductor</i> 47 Ω /sq 28 Ω /sq	<i>EMI Shielding Conductor</i> 0.7 Ω /sq 0.2 Ω /sq	<i>EMI Shielding Conductor</i> 0.19 Ω /sq 0.09 Ω /sq	<i>EMI Shielding Conductor</i> 0.07 Ω /sq 0.05 Ω /sq
Attenuation from 0.01 to 18,000 MHz	not available	not available	50 dB \pm 25 dB	60 dB \pm 18 dB	75 \pm 25 dB
UL Certification File #	—	—	E334302	—	—
Coverage & Application Properties					
Coverage per US gallon per 340 g spray can	— <1490 in ²	<409 ft ² —	<679 ft ² <1,820 in ²	<675 ft ² <1,590 in ²	<763 ft ² —
Dry to Touch	3 to 5 min	3 to 5 min	3 to 5 min	3 to 5 min	3 to 5 min
Recoat time	5 min	5 min	2 min	2 min	2 min
Cure time at room temp. at 65 °C	24 h 15 min	24 h 15 min	24 h 60 min	24 h 60 min	24 h 60 min
Color	Dark Grey	Black	Dark Grey	Light Brown	Silver Grey
Thermal Properties					
Constant service temp (°C) [°F]	(-40 +120) [+23 248]	(-40 +120) [+23 248]	(-40 +120) [+23 248]	(-40 +120) [+23 248]	(-40 +120) [+23 248]
Uncured Paint Properties					
Formats	Aerosol	Liquid	Aerosol; Liquid	Aerosol ; Liquid	Liquid
Solid%	18%	39%	41% ; 65%	41% ; 65%	73%
Density	0.89	0.996 g/mL	1.24 g/mL ; 1.65 g/mL	1.4 g/mL ; 1.7 g/mL	2.15 g/mL
Viscosity Mixture	—	9,500 cP	\leq 3,920 cP	\leq 3,450 cP	\leq 8,000 cP
VOC	15.2%	52%	10% ; 28%	10% ; 27%	21%
Shelf Life (year)	\geq 3 y	\geq 3 y	\geq 3 y	\geq 3 y	\geq 3 y
Magnetic Properties					
Magnetic class	Diamagnetic	Diamagnetic	Ferromagnetic	Diamagnetic	Diamagnetic
Relative Permeability			\geq 100	<1.0	<1.0