



Water-based Conductive Coating Comparison Chart

Uncured Working Properties	841WB	843WB	842WB
Conductive Filler	Ni (nickel)	Ag/Cu (silver coated copper)	Ag (silver)
Format	Liquid	Liquid	Liquid
Color	Grey	Light metallic brown	Silver
Solids Percentage	54%	42%	60%
Density @25 °C [77 °F]	1.8 g/mL	1.3 g/mL	1.5 g/mL
Viscosity @25 °C [77 °F]	143 cP	234 cP	195 cP
VOC Content	145 g/L	51 g/L	53 g/L
Shelf Life	1 y	1 y	1 y
Coverage & Application Properties			
Ready to Spray	Yes	Yes	Yes
Theoretical HVLP Spray Coverage	≤15 200 cm ² /L	≤42 200 cm ² /L	≤69 000 cm ² /L
Recoat Time ^{a)}	30 min	20 min	20 min
Drying Time @25 °C [77 °F]	24 h	24 h	24 h
Drying Time @65 °C [149 °F]	3 h	2.5 h	3 h
Cured Properties	841WB	843WB	842WB
Electrical Properties			
Volume Resistivity	0.027 Ω·cm	0.00068 Ω·cm	0.000075 Ω·cm
Volume Conductivity	37 S/cm	1 470 S/cm	13 300 S/cm
Surface Resistance @1 coat	1.4 Ω/sq	0.21 Ω/sq	0.04 Ω/sq
@2 coats	0.68 Ω/sq	0.11 Ω/sq	0.02 Ω/sq
Attenuation from 0.01 to 18 000 MHz	46 dB ± 16 dB	61 ± 12 dB	65 ± 11 dB
Salt Fog Test @35 °C [95 °F], 96 h ^{b)}	Before 0.4 Ω/sq After 3 Ω/sq	TBD "	Before 0.012 Ω/sq After 0.081 Ω/sq
Thermal Properties			
Constant Service Temperature	-40 to 120 °C [-40 to 248 °F]	-40 to 120 °C [-40 to 248 °F]	-40 to 120 °C [-40 to 248 °F]
Intermittent Temperature Limits	-50 to 125 °C [-58 to 257 °F]	-50 to 125 °C [-58 to 257 °F]	-50 to 125 °C [-58 to 257 °F]
Mechanical Properties			
Adhesion on ABS	5B	5B	5B
Pencil Hardness on ABS	HB, hard	HB, hard	HB, hard
Magnetic Properties			
Magnetic Class	Ferromagnetic (magnetic)	Diamagnetic (non-magnetic)	Diamagnetic (non-magnetic)
Relative Permeability	≥100	<1.0	<1.0

TBD=To be determined

a) Recoat time for plastic. Dry wall recoat times can be found on the TDS's.

b) Tested on acrylonitrile Butadiene Styrene (ABS).