

Electrically Conductive Grease Comparison Chart

	8463	8481	846	847
PROPERTIES				
Conductive filler	Carbon, silver	Carbon, graphite	Carbon	Carbon
Base material	Silicone oil	Synthetic oil	Silicone oil	Synthetic oil
Constant service temperature	-50 to 200 °C [-58 to 392 °F]	-68 to 165 °C [-90 to 329 °F]	-50 to 200 °C [-58 to 392 °F]	-68 to 165 °C [-90 to 329 °F]
Electrical Properties				
Volume resistivity (ρ_v)	N/E ^{a)}	160 $\Omega \cdot \text{cm}$	114 $\Omega \cdot \text{cm}$	23 $\Omega \cdot \text{cm}$
Volume conductivity (σ_v)	N/E ^{a)}	0.006 S/cm	0.009 S/cm	0.04 S/cm
Thermal Properties				
Thermal conductivity @25 °C [77 °F]	0.46 W/(m·K)	0.29 W/(m·K)	N/E	N/E
Grease Properties				
Evaporation loss, 22 h @165 °C [329 °F]	0.5%	2.0%	2.6%	0.3%
Oil separation, 30 h @165 °C [329 °F]	10%	5.0%	0.4%	1.8%
Dropping point	>304 °C [>579 °F]	>300°C [>572 °F]	>304 °C [>579 °F]	>304 °C [>579 °F]
Water washout @38 °C [100 °F]	0.6%	0.9%	1.3%	0.2%
Emcor rust test, distilled water	N/E	0, no corrosion	1	3
Worked penetration, 60 strokes, 1/2 scale	N/E	315	269	174
Physical Properties				
Color	Silver	Black	Black	Black
Odor	Odorless	Odorless	Odorless	Odorless
Density @25 °C [77 °F]	2.35 g/mL	1.01 g/mL	1.05 g/mL	1.07 g/mL
Viscosity	1 550 Pa·s	128 Pa·s	386 Pa·s	N/E
Lubricant	Yes	Yes	Yes	Yes
Bleed resistant	No	Yes	No	Yes
Corrosion resistant	Yes	Yes	Yes	Yes
VOC (Volatile Organic Compound)	31%	4%	0%	0%
Synthetic Oil Properties				
Oil viscosity index	N/Ap	>110 °C [>230 °F]	N/Ap	>110 °C [>230 °F]
Fire point	N/Ap	321 °C [610 °F]	N/Ap	321 °C [610 °F]
Flash point	N/Ap	>290 °C [>554 °F]	N/Ap	>290 °C [>554 °F]

Refer to TDS for more information. N/Ap=Not Applicable, N/E=Not Established.

a) Value depends on pressure.