

Carbon Conductive Assembly Paste

Description

847 is a carbon-filled electrically conductive paste. It improves electrical connections between non-moving parts in the same way a thermal paste improves thermal connections. It will not separate, bleed or migrate. It reduces contact resistance, repels moisture, inhibits corrosion, and prevents static buildup. It is thixotropic and can be used as a gap filler to ensure grounded connections or revitalize corroded sockets.

Use 847 when you want a non-bleeding paste that provides great electrical contact and environmental protection. It is excellent for use on ground connections, battery terminals, bus bars, single pole jacks, slide connectors, HVAC connections, speaker posts, and fluorescent light pins.

Features and Benefits

- *Resistivity of 23 $\Omega \cdot \text{cm}$*
- *Improves electrical connections between irregular, pitted or corroded surfaces*
- *Ensures electrical contact between loose or vibrating parts*
- *Prevents arching, pitting, hotspots and welds*
- *Inhibits corrosion*
- *Fills gaps*
- *Can be used on vertical surfaces*
- *Silicone-free*

Usage Parameters

Properties	Value
Shelf life	5 y

Temperature Ranges

Properties	Value
Constant service temperature	-68 to 165 °C [-90 to 329 °F]
Maximum intermittent temperature	200 °C [392 °F]
Storage temperature limits ^{a)}	-40 to 40 °C [-40 to 104 °F]

a) Cold storage avoids material separation and settling. If storing at room temperature, mix thoroughly to disperse filler before use.

Properties

Electrical Properties	Method	Value
Volume resistivity (ρ_v)	Mil-Std-883J Method 5011.6	23 Ω -cm
Volume conductivity (σ_v)	Mil-Std-883J Method 5011.6	0.04 S/cm
Surface resistivity (ρ_s)	ASTM D257, ASTM D4496	271 Ω /sq
Surface conductivity (σ_s)	ASTM D257, ASTM D4496	0.0037 S/sq
Grease Properties	Method	Value
Evaporation loss, 22 h @165 °C [329 °F]	ASTM D 2595	0.3%
Oil separation, 30 h @165 °C [329 °F]	ASTM D 6184	1.8%
Dropping point	ASTM D 2265	>304 °C [>579 °F]
Water washout @38 °C [100 °F]	ASTM D 1264	0.2%
Worked penetration, 60 strokes, ½ scale	ASTM D 1403	174
Emcor rust test, distilled water	IP 220	3 ^{a)}

a) Corroded areas covering >1% but <5% of the running track surface.

Properties

Physical Properties	Method	Value
Color	Visual	Black
Odor	—	Odorless
Density @25 °C [77 °F]	ASTM D 1475	1.07 g/mL
Viscosity	—	Thixotropic paste
Lubricant	—	Yes
Bleed resistant	—	Yes
Run resistant	—	Yes
Corrosion resistant	—	Yes
VOC (Volatile Organic Compound)	—	0%
Synthetic Oil Properties	Method	Value
Oil viscosity index ^{a)}	ASTM D 2270	>110 °C [>230 °F]
Pour point	—	≥-34 °C [≥-29 °F]
Fire point ^{b)}	ASTM D 92	321 °C [610 °F]
Flash point ^{c)}	ASTM D 92	>290 °C [>554 °F]

Note: Values based on synthetic oil component only.

a) High oil viscosity index of more than 100 indicates a small oil viscosity change with temperature.

b) Temperature at which oil will continue to burn for at least 5 s after ignition with an open flame.

c) Cleveland open cup method.

Storage

Store between -40 and 40 °C [40 and 104 °F] in dry area.

Health, Safety, and Environmental Awareness

Please see the 847 Safety Data Sheet (SDS) for further details on transportation, storage, handling, safety guidelines, and regulatory compliance.

Application Instructions

To apply the grease:

1. Wear protective gloves.
2. Clean and dry the surface being lubricated with a lint-free cloth or brush and a zero-residue cleaning solvent, such as MG 824 Isopropyl Alcohol.
3. Apply a thin, even layer of grease using a spatula or other appropriate applicator.

Attention!

Carbon paste is messy and transfers easily. Be careful not to spread it beyond the intended area.

Packaging and Supporting Products

Cat. No.	Packaging	Net Volume	Net Weight	Packaged Weight
847-25ML	Jar	25 mL [0.84 fl oz]	26.8 g [0.94 oz]	0.04 kg [0.09 lb]
847-1P	Jar	466 mL [15.7 fl oz]	500 g [1.10 lb]	0.56 kg [1.22 lb]
847-1G	Pail	3.78 L [1.00 gal]	4.05 kg [8.93 lb]	4.18 kg [9.21 lb]

Contact M.G. Chemicals if custom packaging or sizes are required.

Technical Support

Please contact us regarding any questions, suggestions for improvements, or problems with this product. Application notes, instructions and FAQs are located at www.mgchemicals.com.

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