

838AR Pen



Carbon Conductive Pen

838AR-P pen dispenses an acrylic lacquer pigmented with conductive carbon. The cured traces are durable and corrosion resistant. They adhere well to plastics and most electronic substrates. The traces are flexible, but the product works best on a smooth, flat, hard surface. The valve tip opens when pressed against the surface, and the flow is controlled by squeezing the barrel.

This pen repairs traces on keyboards, game controllers or remote controls. It is also good for making small connections, such as jumpers, through-holes, bridges, and links. It is great for drawing resistors too, and it can be used to increase the surface area of contacts by painting the area around them.

Use this pen when high conductivity is not required. For applications requiring lower resistance, use the 841AR-P Nickel Conductive Pen or the 842AR-P Silver Conductive Pen.

Features & Benefits

Creates durable, reliable and conductive traces

Typical trace width: 1.5–2.0 mm

Dries in 1 minute at room temperature

Strong corrosion resistance

Does not contain toluene, xylene, or MEK

Also available in liquid and aerosol formats, see separate TDSs

Cure Instructions

Allow to dry at room temperature for 24 hours, or after letting sit for 1 minute, cure the coating in an oven for 30 minutes @ 65 °C.



Available Packaging

Part #	Packaging	Net Vol.	Net Wt.
838AR-P	Pen	5 mL	4.44 g

Storage and Handling

Store between -5 and 27 °C in a dry area, away from sunlight (see SDS).

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Uncured Properties

Chemistry	Acrylic	—
Density	0.9 g/mL	ASTM D1475
Viscosity @ 25 °C	114 cP	Brookfield Engineering labs Inc. IPCTM-65- Method 2.4.24.4
Dry to Touch	1 min	—
Percent Solids	15 %	—
Calculated VOC	519 g/L	—
Approximate Linear Coverage	74 m	Calculated
Shelf Life	3 y	—

Cured Properties

Color	Black	—
Magentic Class	Diamagnetic (non-magnetic)	—
Service Temperature Range	-40–120 °C	—
Resistivity	$6.3 \times 10^{-1} \Omega \cdot \text{cm}$	MIL-STD-883J
Pencil Hardness	H, hard	ISO 15184

Application Instructions

Read the product SDS and Application Guide for more detailed instructions before using this product.

Recommended Preparation

Clean the substrate with Isopropyl Alcohol, MG #824, so the surface is free of oils, dust, and other residues

Pen

1. Shake pen vigorously until the ball moves freely inside.
2. Hold pen at angle and depress tip against surface.
3. Draw pen across surface while gently squeezing barrel.
4. Let dry 1 min before handling or heat cure.
5. Clean tip, replace cap and store tip up after use.

Disclaimer: This information is believed to be accurate. It is intended for professional end-users who have the skills required to evaluate and use the data properly. M.G. Chemicals Ltd. does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.

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