

### **SUPER SHIELD™ Nickel Conductive Spray Paint**

841AR is a conductive paint that consists of a 1-part, solvent-based acrylic lacquer, pigmented with a highly conductive nickel flake. It is smooth, hard, and abrasion resistant. It has a quick dry time, with no heat cure necessary. It adheres strongly to most injection-molded plastics, such as ABS, PBT, PVA and ABS/PC blend. It also provides strong corrosion resistance and is suitable for use in marine environments.

841AR provides a conductive coating for the interior of plastic electronic enclosures that suppresses EMI/RFI emissions. It excels when corrosion resistance is a concern.

#### **Features & Benefits**

UL Recognized (File # E202609)

Provides effective EMI/RFI shielding over a broad frequency range

Strong corrosion resistance

Mild solvent system, safe on polystyrenes

Does not contain toluene, xylene, or MEK

Available in liquid format, see separate TDS

#### **Cure Instructions**

Allow to dry at room temperature for 24 hours, or after letting sit for 3 minutes, cure the paint in an oven for 30 minutes @ 65 °C.



### **Available Packaging**

Part #	<b>Packaging</b>	Net Vol.	Net Wt.
841AR-340G	Aerosol	326 mL	340 g

### **Storage and Handling**

Store between -5 and 27  $^{\circ}\text{C}$  in a dry area, away from sunlight (see SDS).



## **Uncured Properties**

Acrylic	_
1.4 g/mL	ASTM D1475
61 cP	Brookfield Engineering labs Inc. IPCTM-65- Method 2.4.24.4
3 min	_
50 µm (Recommended) 40 µm (Minumum)	_
38 %	_
470 g/L	_
2 500 cm <sup>2</sup> /L	Calculated
3 y	_
	1.4 g/mL 61 cP 3 min 50 µm (Recommended) 40 µm (Minumum) 38 % 470 g/L 2 500 cm²/L

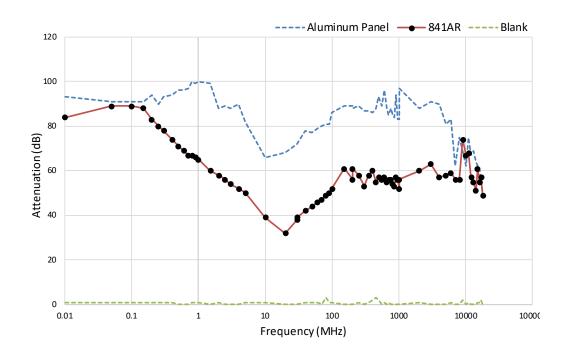
<sup>&</sup>lt;sup>a</sup> Based on 50% transfer efficiency

## **Cured Properties**

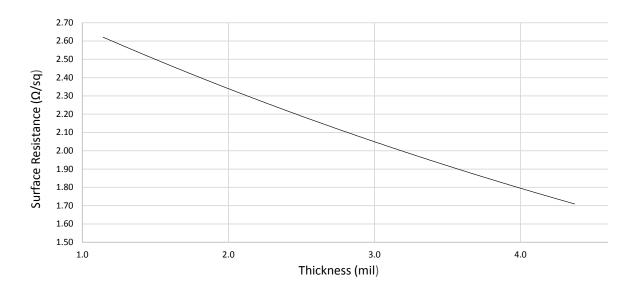
Color	Dark grey	_
Magentic Class	Ferromagnetic (magnetic)	_
Service Temperature Range	-40–120 °C	_
Resistivity	7.6 x 10 <sup>-3</sup> Ω⋅cm	MIL-STD-883J
Surface Resistance @ 50 µm	0.6 Ω/sq	Calculated
Salt Fog @ 35 °C, 96 h	Excellent	ASTM B117
Adhesion	5B (ABS) 0B (Aluminum) 0B (Copper) 5B (Polycarbonate) 5B (Polyamide) 0B (Glass) 5B (PVC) 5B (FR4) 2B (Stainless steel)	ASTM D3359
Pencil Hardness	3H, hard	ISO 15184



## **Shielding Attenuation**



# **Surface Resistance by Paint Thickness**





### **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

#### **Aerosol**

- 1. Shake the can vigorously.
- 2. Spray a test pattern to ensure good flow quality.
- 3. Tilt the board at 45° and spray a thin, even coat from a distance of 20–25 cm (8–10 in). Use spray-and-release strokes with an even motion to avoid paint buildup in one spot. Start and end each stroke off the surface.
- 4. Wait 3 min before applying another coat, to avoid trapping solvent.
- 5. Rotate the board 90° and spray again to ensure good coverage.
- 6. Apply additional coats until desired thickness is achieved (go to step 3).
- 7. Let dry 3 min at room temperature before applying heat cure.
- 8. After use, clear the nozzle by inverting the can and briefly spraying until clear propellant comes out.