# 843AR Aerosol

## SUPER SHIELD™ Silver-coated Copper Conductive Spray Paint




843AR is a conductive paint that consists of a 1-part, solvent-based acrylic lacquer, pigmented with a highly conductive silver-coated copper flake. It is smooth, hard, and abrasion resistant. It is a ready-to-spray system, with no let down necessary. 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 provides excellent shielding levels at high frequencies.

843AR is designed to provide a conductive coating for the interior of plastic electronic enclosures that suppresses EMI/RFI emissions. It excels when higher levels of shielding are required.

## Features & Benefits

UL Recognized (File # E202609)

Provides effective EMI/RFI shielding over a broad frequency range

Mild solvent system, safe on polystyrenes

Does not contain toluene, xylene, or MEK

Also available in liquid formats, see separate TDSs

## 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 # | Packaging | Net Vol. | Net Wt. |
|---|---|---|---|
| 843AR-340G | Aerosol | 400 mL | 340 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 | 1.0 g/mL | ASTM D1475 |
| Viscosity @ 25 ˚C | 87 cP | Brookfield Engineering labs Inc.<br>IPCTM-65- Method 2.4.24.4 |
| Recoat Time | 3 min | — |
| Film Thickness | 50-65 µm (Recommended)<br>30 µm (Minumum) | — |
| Percent Solids | 16 % | — |
| Calculated VOC | 404 g/L | — |
| Theoretical Coverage @ Recommended Thickness [a] | 3 100 $cm^2$ per can | Calculated |
| Shelf Life | 4 y | — |

[a] Based on 50% transfer efficiency

## Cured Properties

| | | |
|---|---|---|
| Color | Metallic brown | — |
| Magentic Class | Diamagnetic (non-magnetic) | — |
| Service Temperature Range | -40–120 °C | — |
| Resistivity | 2.2 x $10^{-4}$ Ω·cm | MIL-STD-883J |
| Surface Resistance @ 50 µm | 0.08 Ω/sq | Calculated |
| Adhesion | 5B (Aluminum)<br>5B (Copper)<br>5B (Polycarbonate)<br>5B (Polyamide)<br>5B (Glass)<br>5B (PVC)<br>5B (FR4)<br>5B (Stainless steel) | ASTM D3359 |
| Pencil Hardness | F, medium | ISO 15184 |



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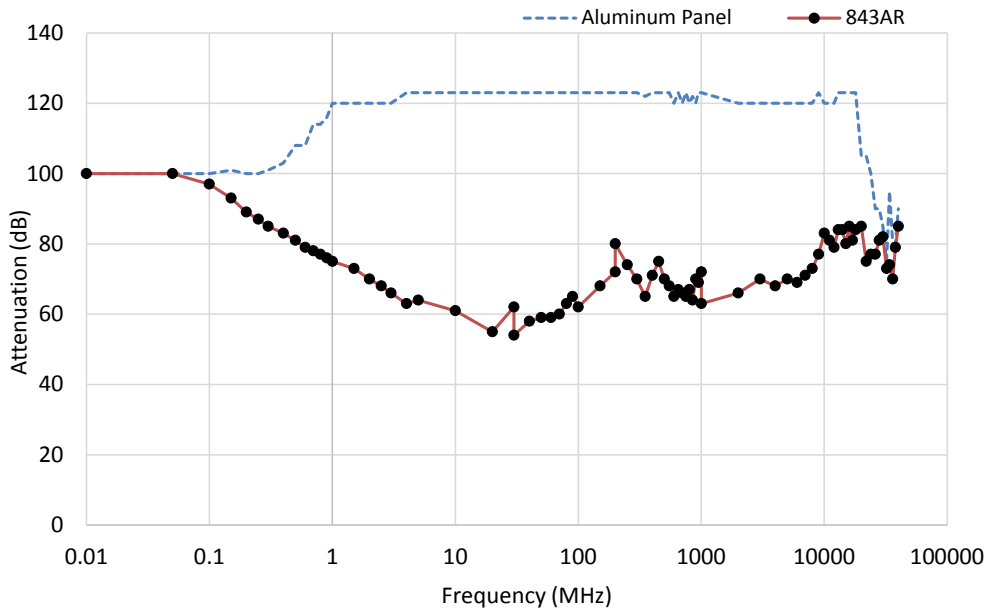
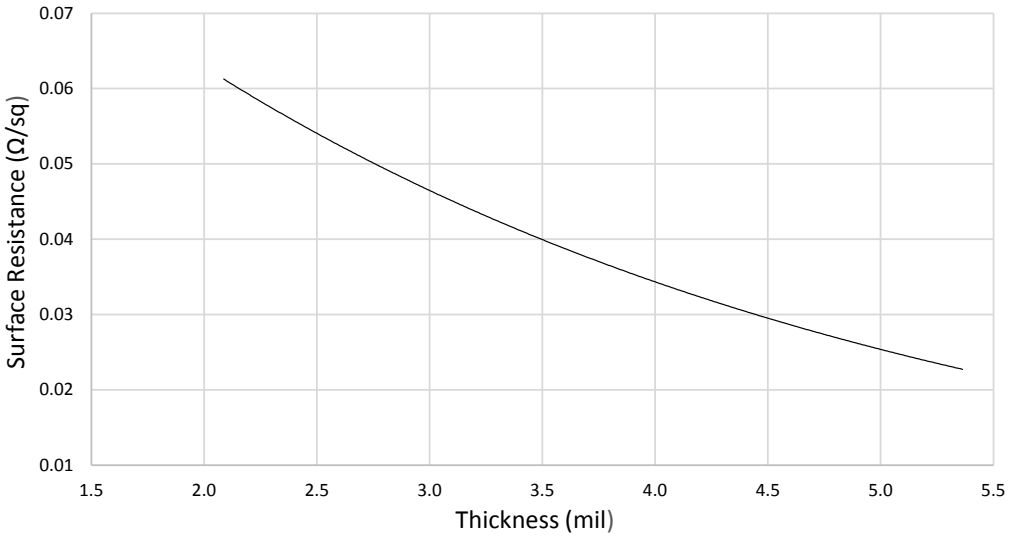
## Shielding Attenuation




## Surface Resistance by Paint Thickness



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## 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.

**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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