

# 838AR Aerosol



## Total Ground™ Carbon Conductive Spray Paint

838AR is an economical conductive paint that consists of a 1-part, solvent-based acrylic lacquer, pigmented with highly conductive carbon powder. It is smooth, durable, 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 and PVA. It provides strong corrosion resistance and is suitable for use in marine environments.

838AR is excellent for creating grounded surfaces and in low frequency RFI shielding applications, such as pickup cavities on electric guitars. It is also perfect for shielding metal detectors and other devices where a metal-filled conductive paint would cause malfunction.



## Features & Benefits

- Provides >50 dB of RFI shielding at frequencies <1 MHz
- Quick dry time, no heat cure required, and easy to apply
- Strong corrosion resistance
- Mild solvent system, safe on polystyrenes
- Does not contain toluene, xylene, or MEK
- Available in liquid format (see separate TDS)

## Available Packaging

Cat. No.	Packaging	Net Vol.	Net Wt.
838AR-340G	Aerosol	442 mL	340 g

## Contact Information

MG Chemicals, 1210 Corporate Drive  
Burlington, Ontario, Canada L7L 5R6

Email: support@mgchemicals.com

Phone: North America: +(1)800-340-0772

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## Cured Properties

Resistivity	6.9 x 10 <sup>-1</sup> Ω·cm
Surface Resistance @ 50 µm	110 Ω/sq
Salt Fog Resistance @ 35 °C, 96 h	Excellent
Service Temperature Range	-40–120 °C

## Usage Parameters

Recoat Time	3 min
Cure Times	24 h @ 22 °C 30 min @ 65 °C
Recommended Film Thickness	50 µm
Minimum Film Thickness	25 µm
Theoretical Coverage @ 2 mil (based on 100% transfer efficiency)	20 016 cm <sup>2</sup>

## Uncured Properties

Viscosity @ 25 °C	46 cP
Density	0.84 g/mL
Percent Solids	7.6 %
Shelf Life	3 y
Calculated VOC	587 g/L

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## Safety Data Sheet

Read the product SDS and Application Guide for more detailed instructions before using this product (downloadable at [www.mgchemicals.com](http://www.mgchemicals.com)).

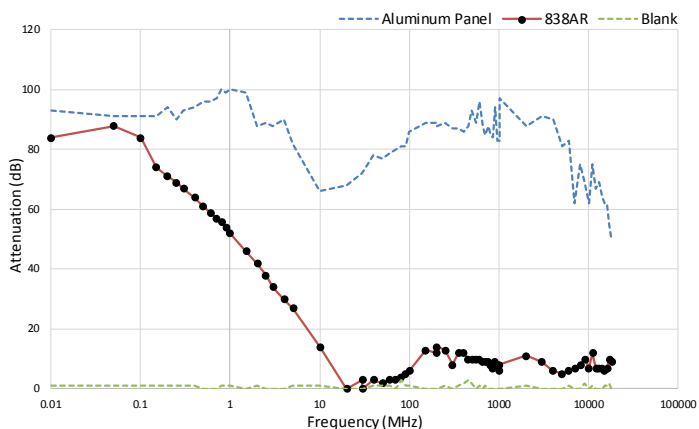
## Recommended Preparation

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

## Application Instructions

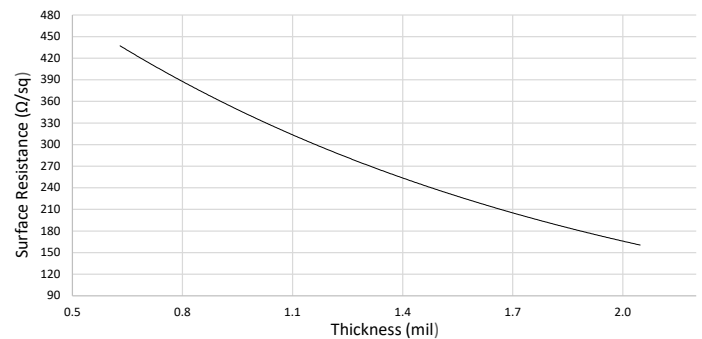
1. Shake the can vigorously.
2. Spray a test pattern to ensure good flow quality.
3. Tilt the board at 45° and spray a thin, even coat from a distance of 20–25 cm (8–10 in). Use spray-and-release strokes with an even motion to avoid paint buildup in one spot. Start and end each stroke off the surface.
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.

## Shielding Attenuation



Test performed with a two-coat thickness.

## Surface Resistance by Paint Thickness



## 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.

## Storage and Handling

Store between -5 and 40 °C in a dry area, away from sunlight (see SDS).

## 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.