

843WB Liquid



Super Shield™ Water Based Silver Coated Copper Conductive Paint

843WB is a 1-part, water-based conductive paint, pigmented with highly conductive silver-coated copper flake. It is easy to use, with no let-down and no heat cure necessary. It adheres strongly to most injection-molded plastics, such as ABS, PBT and PVA. It also bonds well to drywall and can be painted over with common architectural paints.

843WB is designed to reduce EMI/RFI in architectural and electronic applications.



Features and Benefits

- Provides excellent EMI/RFI shielding over a broad range of frequencies
- Non-flammable and no noxious odors
- Ships as a non-DG by air
- Low VOC content

Available Packaging

Cat. No.	Packaging	Net Vol.	Net Wt.
843WB-15ML	Jar	12 mL	15.8 g
843WB-150ML	Bottle	150 mL	198 g
843WB-850ML	Can	850 mL	1.12 kg
843WB-3.78L	Can	3.60 L	4.76 kg

Contact Information

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Cured Properties

Resistivity	$5.3 \times 10^{-4} \Omega \cdot \text{cm}$
Surface Resistance @ 50 μm	0.020 Ω/sq
Service Temperature Range	-40–120 °C

Usage Parameters

Dry To Touch (plastic)	20 min
Dry To Touch (drywall)	5 min
Cure Times	24 h @ 22 °C 2.5 h @ 65 °C
Recommended Film Thickness	50 μm
Theoretical Coverage @ 50 μm	$\leq 30\,500 \text{ cm}^2/\text{L}$

Uncured Properties

Viscosity @ 25 °C	660 cP
Density	1.32 g/mL
Percent Solids	42 %
Shelf Life	2.5 y
Calculated VOC	37 g/L

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Application Instructions

Read the product SDS before using this product (downloadable at www.mgchemicals.com).

Recommended Preparation

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

Drywall—For new drywall, apply directly on top of the drywall primer, after the primer has properly cured. When applying on top of existing paint, first wash the wall with a solution of T.S.P. diluted with water at a 1:10 ratio, to ensure good adhesion.

Paint Roller

This product may be applied with a standard paint roller. Thinning is not required.

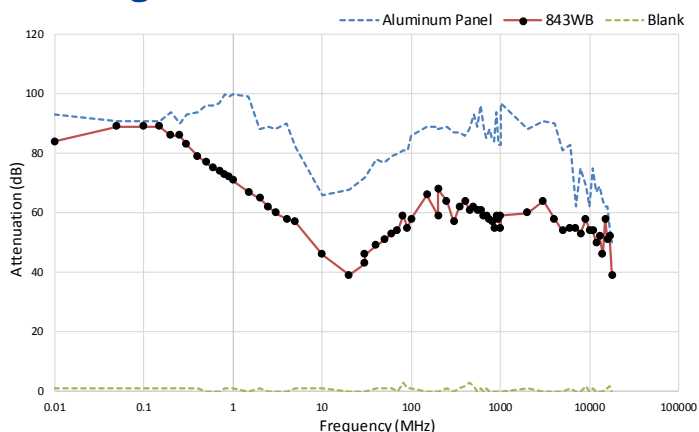
HLVP Spray

Use a standard HVLP (High Volume Low Pressure) fluid nozzle gun with a minimum tip diameter of 0.8–1.0 mm. The settings listed below are recommendations, however performance will vary with different brands:

- Inlet: 20–40 psi
- Air flow: 10–15 SCFM
- Air cap: 8–10 psi

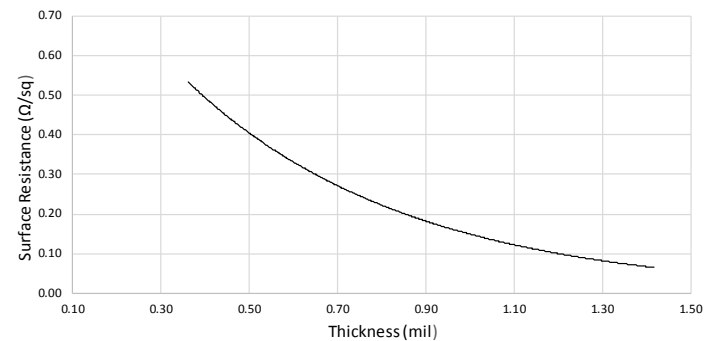
When using a pressure pot and agitator, keep the agitator at low mixing speed with air pressure of 20–50 psi. Use the lowest pressure necessary to keep the particles suspended.

Shielding Attenuation



Test performed with a two-coat thickness.

Surface Resistance by Paint Thickness



Robotic Spray

For higher volume applications, paint can be applied via robotic spray equipment. Use a system with constant fluid recirculation to keep the particles from settling in the lines. A fluid nozzle ranging from 0.5 mm to 1.0 mm diameter and 5–10 psi fluid pressure is recommended depending on nozzle size.

Cure Instructions

Allow to dry at room temperature for 24 hours, or after letting sit for 20 minutes, cure the paint in an oven for 2.5 hours @ 65 °C.

Clean-up

Clean the spray system and equipment with tap water after use.

Storage and Handling

Store between -20 and 27 °C in a dry area, away from sunlight (see SDS).

If exposed to freezing temperatures during storage or transport, keep product at room temperature for at least two days and ensure it is fully homogeneous prior to 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.