842WB Liquid

EMI Conductive Paint

842WB is a 1-part, water-based conductive paint, pigmented with highly conductive silver flake. It is easy to use, with no let-down and no heat cure necessary. It can be applied by spray, brush or roller. 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.

842WB is designed to reduce EMI/RFI interferences in architectural and electronic applications.



Features & 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.
842WB-55ML	Bottle	55 mL	82.4 g

Contact Information

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Cured Properties

Resistivity	7.5×10^{-5}	Ω·cm
Surface Resistance @ 50 µm	0.0020	Ω/sq
Salt fog @ 35 °C [95 °F], 96 h	Excellent	
Service Temperature Range	-40–120	˚C

Usage Parameters

Recoat Time (plastic)	20	min
Recoat Time (drywall)	5	min
Cure Times	24 h @ 22	˚C
	3 h @ 65	˚C
Recommended Film Thickness	25	µm
Minimum Film Thickness	15	µm
Theoretical Coverage @ 2 mil (based on 100% transfer efficiency)	32 665	cm^2/L

Uncured Properties

Viscosity @ 25 ˚C	195	cP
Density	1.50	g/mL
Percent Solids	60	%
Shelf Life	3	y
Calculated VOC	37	g/L

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Application Instructions

Read the product SDS and Application Guide for more detailed instructions 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 and Brush

Thinning is not required. Use a standard paint roller, foam brush or MG #855 horse hair brush.

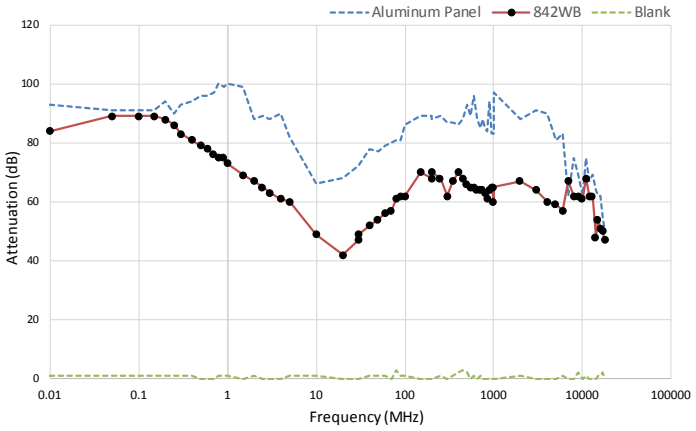
Manual Spray Guns

Use a standard fluid nozzle gun to spray the paint. The settings listed below are recommendations; however, performance will vary with different brands:

	LVMP	HVLP
Nozzle tip diameter	1.2–1.4 mm	1.2–1.4 mm
Inlet pressure	5–15 psi	5–15 psi
Air flow	10–15 SCFM	8.3 SCFM
Air cap	5–10 psi	5–10 psi

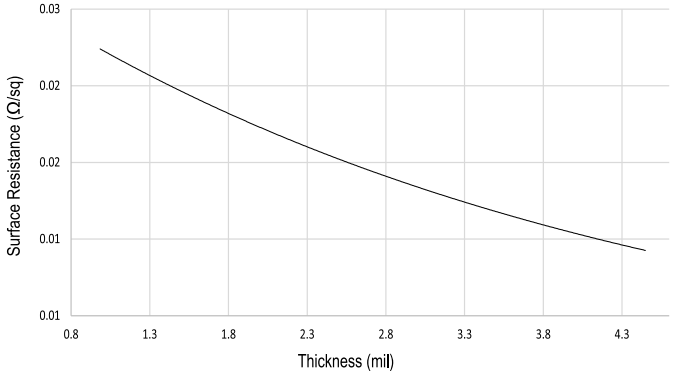
When using a pressure pot and agitator, keep the agitator at low mixing speed with air pressure of 20–50 psi. Use the lowest pressure necessary to keep the particles suspended.

Shielding Attenuation



Test performed with a two-coat thickness.

Surface Resistance by Paint Thickness



Selective Coating

For higher volume applications, paint can be applied via selective coating equipment. Use a system with constant fluid recirculation to keep the particles from settling in the lines. A fluid nozzle ranging from 1.2 mm –1.4 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 3 hours @ 65 ˚C.

Clean-up

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

Storage and Handling

Store between 16 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.