

841WBU



SUPER SHIELD™ Water-based Nickel Conductive Paint

841WBU is a 1-part, water-based conductive paint, pigmented with highly conductive nickel 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.

841WBU is designed to reduce EMI/RFI interferences in architectural, electric musical and electronics applications.

Features & Benefits

EU-compliant version of 841WB

Provides effective 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

Cure Instructions

Allow to cure at room temperature for 24 hours, or cure in an oven at one of these time/temperature options:

Temperature	65 °C	80 °C
Time	3 h	1 h



Available Packaging

Part #	Packaging	Net Vol.	Net Wt.
841WBU-55ML	Bottle	55 mL	99.4 g
841WBU-850ML	Can	850 mL	1.53 kg
841WBU-3.78L	Can	3.60 L	6.50 kg

Storage and Handling

Store between -10 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.

Liquid Properties

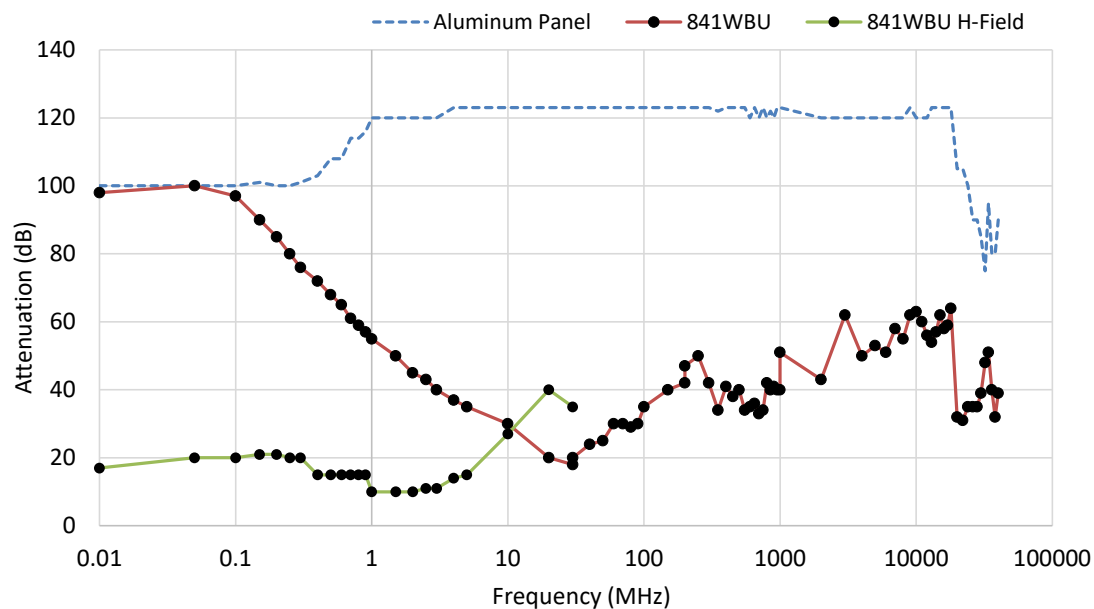
Chemistry	Water-based	—
Density	1.8 g/mL	ASTM D1475
Viscosity @ 25 °C	120 cP	Brookfield Engineering labs Inc. IPCTM-65- Method 2.4.24.4
Recoat Time	6 min (ABS) 5 min (Drywall)	—
Film Thickness	65 µm (Recommended) 50 µm (Minimum)	—
Percent Solids	58 %	—
Calculated VOC	174 g/L	—
Theoretical Coverage @ Recommended Thickness ^a	37 000 cm ² /L	Calculated
Shelf Life	2 y	—

^a Based on 99% transfer efficiency

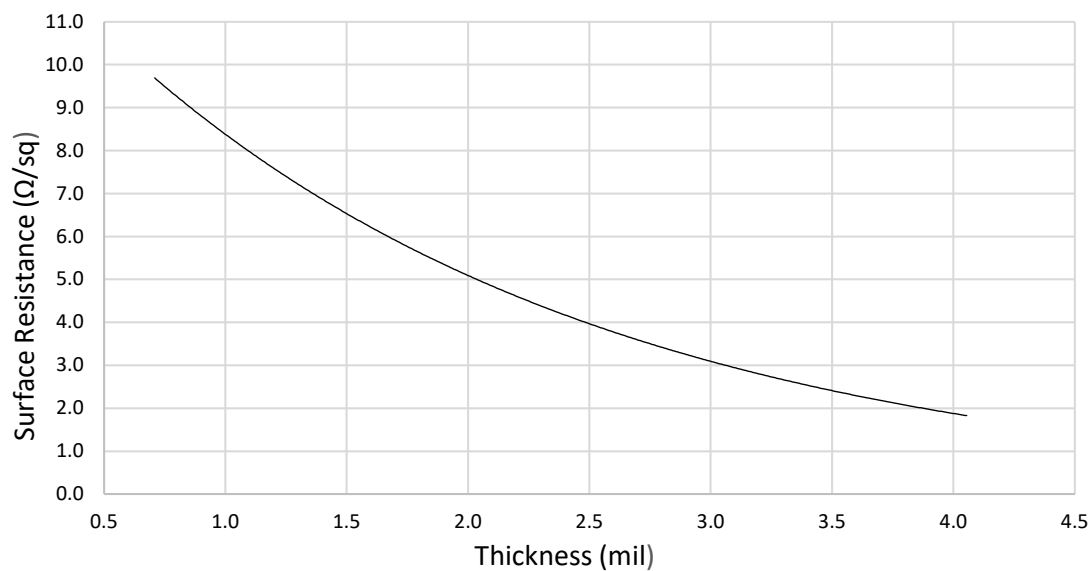
Cured Properties

Color	Grey	—
Magnetic Class	Ferromagnetic (magnetic)	—
Service Temperature Range	-40–120 °C	—
Resistivity	8.4 x 10 ⁻² Ω·cm	MIL-STD-883J
Surface Resistance @ 50 µm	5.9 Ω/sq	Calculated
Adhesion	5B (ABS) 2B (Aluminum) 5B (Copper) 5B (Polycarbonate) 5B (Polyamide) 5B (Glass) 5B (PVC) 5B (FR4) 5B (Stainless steel)	ASTM D3359
Pencil Hardness	2B, soft	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

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.

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.

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.

Clean-up

Clean the spray system and equipment with tap water after 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.