844AR Liquid

ESD Safe Coating for Plastic

844AR is a 1-part, solvent-based, permanent electrostatic dissipative (ESD) coating. It adheres to many conventional plastic substrates and paint systems. The cured coating is flexible, durable, and will not crack, chip or peel. The coating can be cured at room temperature or higher.

844AR is commonly used in electronic assembly lines to protect against electrostatic charge build-up on tools, production conveyor and bumpers, assembly trays, workstation surfaces, and enclosures.



Features & Benefits

Dark grey, uniform and smooth ESD coating

Quick-dry

Strong adhesion with excellent flexibility

Does not contain toluene, xylene, or MEK

Low VOC and HAP free

Also available in aerosol (844AR-340G) format, see separate TDSs

Cure Instructions

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

Temperature	45 °C	65 °C	80 °C
Time	1 h	30 min	10 min

Available Packaging

Part #	Packaging	Net Vol.	Net Wt.
844AR-900ML	Can	850 mL	799 g
844AR-3.78L	Can	3.60 L	3.38 kg

Storage and Handling

Store between -5 and 27 ˚C in a dry area, away from sunlight (see SDS).

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Liquid Properties

Chemistry	Acrylic	—
Density	0.9 g/mL	ASTM D1475
Viscosity @ 25 ˚C	8.6 cP	Brookfield Engineering labs Inc. IPCTM-65- Method 2.4.24.4
Recoat Time	5 min	—
Film Thickness	50 µm (Recommended) 40 µm (Minumum)	—
Percent Solids	17 %	—
Calculated VOC	423 g/L	—
Theoretical Coverage @ Recommended Thickness [a]	20 650 cm^2/L	Calculated
Shelf Life	3 y	—

[a] Based on 100% transfer efficiency

Cured Properties

Color	Dark grey	—
Service Temperature Range	-40–120 °C	—
Surface Resistance @ 50 µm	2.0 x 10^8 Ω/sq	Calculated
Adhesion	5B (ABS) 0B (Aluminum) 0B (Copper) 5B (Polycarbonate) 5B (Polyamide) 3B (Glass) 5B (PVC) 5B (FR4) 0B (Stainless steel)	ASTM D3359
Pencil Hardness	H, hard	ISO 15184

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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 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 diamter	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. Thin the paint to adjust the viscosity to the level appropriate for the valve being used.

Clean-up

Clean spray system and equipment with MEK or acetone, MG # 434.

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.