# 844AR Liquid



# **ESD Safe Coating for Plastic**

844AR is a 1-part, solvent-based, permanent electrostatic dissipative (ESD) coating. It adheres strongly to plastics, paints, metals, and many other surfaces. 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

#### **Available Packaging**

| Cat. No.    | Packaging | Net Vol. | Net Wt. |
|-------------|-----------|----------|---------|
| 844AR-900ML | Can       | 850 mL   | 799 g   |
| 844AR-3.78L | Can       | 3.60 L   | 3.38 kg |

# **Cured Properties**

| Surface Resistance @ 50 µm | 2.0 x 10 <sup>8</sup> Ω/sq |
|----------------------------|----------------------------|
| Service Temperature Range  | -40–120 °C                 |

#### **Usage Parameters**

| Recoat Time                  | 5 min                     |
|------------------------------|---------------------------|
| Cure Times                   | 24 h @ 22  °C             |
|                              | 1 h @ 45 °C               |
|                              | 30 min @ 65 °C            |
|                              | 10 min @ 80 °C            |
| Recommended Film Thickness   | 50 µm                     |
| Minimum Film Thickness       | 40 µm                     |
| Theoretical Coverage @ 2 mil | 26 800 cm <sup>2</sup> /L |

# **Contact Information**

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# **Uncured Properties**

| Viscosity @ 25 °C | 8.6 cP    |
|-------------------|-----------|
| Density           | 0.94 g/mL |
| Percent Solids    | 17 %      |
| Shelf Life        | 2 y       |
| Calculated VOC    | 423 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**

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

#### **Brush**

Thinning is not required for most brush applications. Use a 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.

#### **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.

# **Cure Instructions**

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

| Tempera | ature 45 °C | 65 °C  | 3° 08  |
|---------|-------------|--------|--------|
| Time    | 1 h         | 30 min | 10 min |

#### **Clean-up**

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

#### **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.