

842ARL Liquid



Silver Conductive Paint

842ARL is a 1-part silver acrylic paint that cures at room temperature and provides exceptional shielding from electromagnetic interference across a wide spectral range. This coating uses a highly engineered silver flake that enables exceptional shielding even at low film thicknesses, helping to extend coverage and lower costs. The cured film is highly flexible and has a pleasing, lustrous esthetic. It can be applied by either spray or brush.

The broadband protection afforded by silver acrylic paint make it attractive for use in industries such as automotive, aerospace, communications, and military. Its low film build also makes it a suitable option for package level shielding, replacing expensive methods like canning or stamping.



Features & Benefits

- Superior conductivity
- Adheres strongly to plastics, metals and glass
- Conductive at low film thickness
- Strong corrosion resistance
- HAPs-free formula

Available Packaging

| Cat. No. | Packaging | Net Vol. | Net Wt. |
|--------------|-----------|----------|---------|
| 842ARL-900ML | Can | 850 mL | 1.11 kg |

Contact Information

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Cured Properties

| | |
|---------------------------|---|
| Resistivity | $7.5 \times 10^{-5} \Omega \cdot \text{cm}$ |
| Service Temperature Range | -40–120 °C |

Usage Parameters

| | |
|--|--------------------------------|
| Recoat Time | 3 min |
| Cure Times | 24 h @ 22 °C 30 min @ 65 °C |
| Recommended Film Thickness | 25 μm |
| Minimum Film Thickness | 8 μm |
| Theoretical Coverage @ 2 mil (based on 99% transfer efficiency) | 21 000 cm^2/L |

Uncured Properties

| | |
|-------------------|----------|
| Viscosity @ 25 °C | 16 cP |
| Density | 1.3 g/mL |
| Percent Solids | 39 % |
| Shelf Life | 3 y |
| Calculated VOC | 268 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 diluted paint. The settings listed below are recommendations; however, performance will vary with different brands:

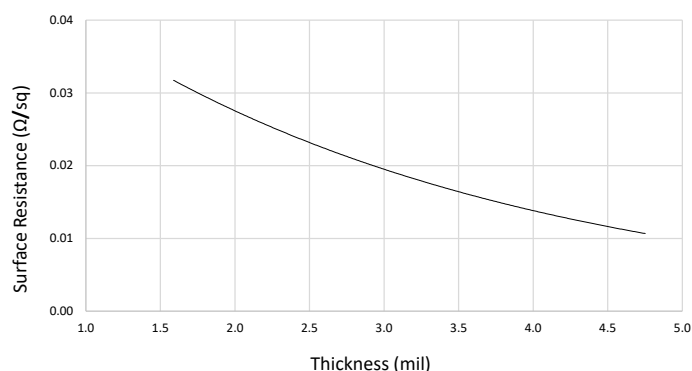
| | LVMP | HVLP |
|---------------------|------------|------------|
| Nozzle tip diameter | 1.2–1.4 mm | 1.2–1.4 mm |
| Inlet pressure | 5–15 psi | 5–15 psi |
| Air flow | 10–15 SCFM | 8.3 SCFM |
| Air cap | 5–10 psi | 5–10 psi |

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.

Surface Resistance by Paint Thickness



Cure Instructions

Allow to dry at room temperature for 24 hours, or after letting sit for 3 minutes, cure the paint in an oven for 30 minutes @ 65 °C.

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.