Product Data Sheet

Distributed for Acheson Colloids By:
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Catalog Numbers:

60814 (1 gallon)

608145G (5 gallons)

Electrodag® 6050

Silver-Plated Copper Coating

Description:

Electrodag 6050 is a ready-to-spray EMIIRFI shield coating system specially formulated for low ohms at thin film builds on plastic electronic equipment housings. Electrodag 6050 reduces cost and increases productivity with more parts per mask wash cycle. It exhibits excellent environmental aging stability with superior scratch/mar resistance while providing an aesthetically pleasing coating appearance with excellent long-term shielding and grounding properties.

Features:

- **Very** smooth, Ra ≤ 2.5 µ
- Excellent Taber wear and Gardner mar resistance characteristics
- Stable electrical properties after heat cycle and humidity (-40°F/-40°C to 160°F/71°C; 120°F/49°C and 95% RH)
- Soft settling, easy mixing, easy handling, air or force dries
- Meets UL Specification 746-C -- Recognized for excellent adhesion to most plastics commonly used in electronic equipment housings
- Coats vertical and horizontal surfaces well, yielding low corner-to-corner ohm readings
- Overspray easily removable
- Bright appearance
- **Contains no methyl alcohol**

Typical Properties: (as supplied)

Pigment	: silver-plated copper
Binder	: acrylic
Weight solids	: 31%
Diluent	: none -- ready to spray
Density	: 8.75 lb/gal
Flash point	: 24°F (-4°C)
Theoretical coverage	: 235 sq ft/gal/mil
Shelf life	: 24 months from date of shipment under original seal

Typical Properties: (as sprayed)

VOC	: 725 g/l (6.04 lb/gal)
Vapor pressure	: 45.2 mm Hg @ 68°F (20°C)
Photochemical reactivity	: none
Drying time	: 5 minutes air dry to touch/10 minutes to handle and 20 minutes @ 140°-160°F (60°-71 °C) or 2 hours air dry

Typical Properties: (when dried)

Sheet resistance	: < 0.120 ohm/sq/mil
Attenuation	: > 75 db
Maximum service temp.	: 200°F (93°C)

Method of Use:

Mixing and Dilution
Electrodag 6050 is easily mixed on a paint shaker or by stirring before use. Check to be sure all solids are in suspension prior to use. No dilution is necessary to spray with HVLP spray guns. Product can be thinned with MEK if desired for conventional spray gun application.

Application Method
Conventional propeller-agitated pressure pot spray systems can be used for production. Small prototype/sample runs can be sprayed with well-mixed product, using suction cup spray equipment. Highest efficiency has been achieved using high volume, low pressure, recirculating HLVP-type spray guns due to minimization of overspray losses. Electrodag 6050 robot application is optimized with recirculation of the paint from pot through the gun and back via a pump delivery system.

A nominal 1.0-1.5 mil dry film coating thickness is recommended for good shielding performance. However, a thinner coating may be acceptable, depending on the shielding requirements of the device being protected. Avoid dry spray for maximum adhesion and conductivity.

During humid days, the addition of no more than 6 fluid ounces per gallon of diacetone alcohol or butyl alcohol to Electrodag 6050 will eliminate blushing. The blushing is characterized by a white tint to the dried surface.

Drying
Electrodag 6050 dries to touch in about 5 minutes; to handle in approximately10 minutes, depending on ambient temperature. It may be force dried 20 minutes at 140° to 160°F (60° to 71°C) with excellent results and slightly lower ohm readings than air dry values.

Quality Control:

Measure resistance after coating is dry. Digital ohmmeter measurements using the same type of test probes at constant spacing avoids confusion and is highly recommended.

Mask Cleaning:

Masks can be cleaned with solvent or solventless mask washers. Overspray can be removed from plastics with 40%/60% acetone/IPA wipe.

Application Assistance:

For additional application assistance on production start-up with Electrodag 6050, contact an Acheson Application Specialist, Acheson Colloids Company, P.O. Box 611747, Port Huron, Michigan 48061 -1747, (810) 984-5581.

Precautions:

Flammable. Before using this or any chemical product, please consult the material safety data sheet for proper handling procedures.

1 gallon (8.75 pounds)
5 gallon (44 pounds)

Note:

Electrodag is a registered trademark of Acheson Industries, Inc.

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