

Product Data Sheet



Acheson Colloids Company

**Electrodag[®]
550**

**Easy-Mixing, Stable
Highly Conductive
Nickel Coating**

This is one of a series of Electrodag coatings designed to provide assistance in achieving electromagnetic compatibility.

Description:

Electrodag 550 is an extremely conductive and stable nickel acrylic lacquer coating that provides excellent long-term shielding against radiated EMI.

Features:

- Smooth
- Easy mixing
- Stable electrical properties post heat cycling and humidity (-40°F/-40°C to 160°F/71 QC; 120°F/49°C and 95% RH)
- Burnish resistant (electrical resistance minimally affected by wear)
- Easy processing--air dries
- Overcoatable by decorative top coatings with minimum affect on shielding and decorative coating properties
- Economical
- Compatible with plastics commonly used in electronic equipment cabinetry
- Easy handling/consistent properties
- Overspray removable without stain
- UL recognized

Typical Properties: (as supplied)

Pigment	: nickel
Binder	: acrylic
Pigment solids	: 59.5%
Diluent	: Acheson solvent blend SB-1, SB-8, or SB-10 depending on substrate
Density	: 13.5 lb/gal
Flash point	: 45°F (7.2°C)
Theoretical coverage	: 405 sq ft/gal @? 1 mil
Volume percent solids	: 25.3%
Shelf life	: 12 months under original seal
VOC	: 656 g/l (5.46 lb/gal) 5

Typical Properties: (when dried)

Sheet resistance	: < 0.5 ohm/sq/mil
Attenuation	: 60-65 dB @? 2 mils per ASTM ES 7-83
Pencil hardness	: > 9H
Maximum service temperature	: 300°F (149°C)

Information presented in this product data sheet is considered reliable, but conditions and methods of use, which are beyond our control, may modify results. Before adopting our products for commercial use, the user should confirm their suitability. In no case should recommendations or suggestions for the use of our products be understood to sanction violation of any patent.

Method of Use:	Surface Preparation Surface should be clean and dry. Mixing and Dilution Thoroughly mix Electrodag 550 on a paint shaker before thinning. (Note: Since Electrodag 550 is a slow/soft settling material, mixing time when compared to conventional nickel coatings, can be substantially reduced.) For proper dilution, use a ratio of 1:0.8 (product to solvent by volume). Application Electrodag 550 should be spray applied using conventional propeller-agitated pressure pot spray systems. Small prototype runs may be sprayed with well mixed product, using suction cup spray equipment. A nominal 2.0 to 2.5 mil 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 550 will eliminate blushing. The blushing is characterized by a white tint to the dried surface. Drying Electrodag 550 dries to touch in about 5 minutes; to handle in approximately 30 minutes, depending on ambient temperature.
Quality Control:	Measure resistance after coating is dry. Digital ohmmeter measurements using industry standard test probes at constant spacing and pressure avoids confusion and is highly recommended.
Mask Cleaning:	For high volume production where masks are often used to prevent coating certain areas, the masks can be cleaned with lacquer thinner or ketone solvents.
Application Assistance:	For additional information on production start-up with Electrodag 550, contact an Acheson Application Specialist, Acheson Colloids Company, P.O. Box 611747, Port Huron, Michigan 48061 -1747, (810) 984-5581.
Precautions:	Flammable. Harmful if swallowed, inhaled, or absorbed through skin. May cause eye irritation. Wash thoroughly after handling. Keep away from heat, sparks, and open flame. Keep container tightly closed when not in use. Use with adequate ventilation. Avoid breathing vapor. (See Acheson Material Safety Data Sheet for proper first aid instructions.)
Container Sizes:	1 gallon (13 pounds) 5 gallon (65 pounds)
Note:	Electrodag is a registered trademark of Acheson Industries, Inc. The data contained on this sheet represents typical properties and is not to be used as a basis for specification. Contact Acheson Colloids Company, P.O. Box 611747, Port Huron, Michigan 48061-1747, (810) 984-5581, when writing product specifications.
