

Fast Drying Silver Suspension, 30gm

Product No. 16040-30

Description:

Fast Drying Silver Suspension has been specifically designed to give increased coverage while maintaining a very high conductivity. Thus it is a very economic means of achieving excellent shielding against radiated electromagnetic interference (EMI). It maintains its low resistance even after exposure to heat, cold, humidity and salt spray. It is an air drying system that requires no primer or top coat. It is easily applied by spray or brush and is compatible with plastics commonly used for electronic equipment enclosures. This very fine flake silver is suspended in methyl iso-butylketone and forms a thin, smooth, highly conductive silver film which is both adherent and flexible.

Typical Applications:

- Specimen preparation for SEM and EM applications
- Charge bleed
- Plating nonconductors
- Static Bleed paths
- Shielding on plastic enclosures of electronic equipment.

Typical Properties (as supplied):

Pigment	: Silver
Binder	: Thermoplastic resin
Carrier	: methyl iso-butylketone
Diluent	: Product No. 16048 Silver Paint Diluent
Alternate Diluent	: MEK/Diacetone alcohol (2 : 1 by weight)
Solids content	: 57.5 - 59.0%
Viscosity (Brookfield 20°C, 20 rpm)	: 250 - 500 mPa.s
Flashpoint	: 14°C
Density	: ca. 1630 kg/m ³
Theoretical Coverage	: ca. 9 m ² /kg at 10 µm coating thickness
Shelf life	: 18 months from date of qualification under original seal

Physical Properties (as cured):

(on Lexan panels, dried 30 min./70°C)

Color	: Silver
Sheet resistance	: <0.015 ohms/sq/mil (25µm)
Attenuation	: 60 dB at 25 µm coating thickness at 1000 MHz
Service temperature	: 220°F (105°C)

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TED PELLA. INC.

Microscopy Products for Science and Industry

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Method of Use:

Surface preparation

Make sure substrate is clean (free from dirt and grease) and dry.

Mixing and Dilution

Thoroughly homogenize before use. Check to make sure there are no unmixed solids at the bottom of the container. Use Fast Drying Silver Suspension neat for brush application. For spray application dilute the product at a ratio of 2 : 1 by weight product to diluent. Use a blend of MEK/Diacetone alcohol (2 : 1 by weight) for dilution. If the evaporation speed of this mixture is too low, reduce the amount of DAA.

Application

Brush on for applications on small areas. A conventional paddle-agitated pressure tank system should be used when applying Fast Drying Silver Suspension by spray. It is recommended to maintain a spray pressure of 2 to 2.5 bar and to use a spray gun with a nozzle diameter varying from 1 to 1.5 mm. Small prototype runs may be sprayed with well mixed product, using suction cup spray equipment. A 10 to 15 μm coating thickness is recommended for good EMI shielding performance. Avoid "dry spraying", for maximum adhesion and conductivity.

Drying

This product dries to touch in about 10 minutes and can be handled after a further 10 minutes approximately, depending on ambient temperature. Good coating properties will be achieved after 4 - 8 hours air drying (depending on coating thickness and temperature). For production runs, conventional forced drying methods (30 min./70- 80°C) may be used for faster processing. Forced drying of the coating will noticeably improve conductivity.

Cleaning

For high volume production where masks are used, they can be cleaned with ester (butylacetate, ethylacetate) or ketone (MIBK, MEK) solvents. Spray and mixing equipment can be cleaned with the same solvents.

Storage:

Store the product at temperatures between 41 and 86°F (5 and 30°C).

Health & Safety:

See separate Material Safety Data Sheet.

THE PRODUCTS DISCLOSED HEREIN ARE SOLD WITHOUT ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

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