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ELECTRODAG 1415

AGG3648, AGG3649 & AGG3692

Description

Electrodag 1415M is the latest in a series of coatings which provide Electromagnetic Compatibility (EMC) and it 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.

Typical Applicants

Plastic enclosures of mobile telephones; laptop and notebook personal computers; industrial, military, scientific and medical equipment.

Typical Properties (of a wet product)

Pigment	Silver
Binder	Thermoplastic resin
Solids content	57.5 – 59.0%
Viscosity (Brookfield 20ºC, 20 rpm)	250 – 500 mPa.s
Flashpoint	14ºC
Density	ca. 1630 kg/m^3
Theoretical coverage	ca. 9m^2/kg at 10µm coating thickness
Diluent	2 part solvent (electrodag) 1 part diluent
Shelf life	18 months from date of qualification under original seal

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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 Electrodag 1415M before use. Check to make sure there are no unmixed solids at the bottom of the container.

Use Electrodag 1415M 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.
A conventional paddle-agitated pressure tank system should be used when applying Electrodag 1415M 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 1.5mm. Small prototype runs may be sprayed with well mixed product, using suction cup spray equipment. A 10 to 15µm 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

Typical Properties (on Lexan panels dried 30 min./70ºC)

Sheet resistance	< 0.015 Ohm/square at 25µm coating thickness
Attenuation	60 dB at 25µm coating thickness at 1000MHz
Max. service temperature:	105°C

Storage

Store the product at temperatures between 5 and 30°C.

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Health & Safety

See separate Material Safety Data Sheet

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 preparation of specifications.