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Conductive Graphite Isopropanol Based

AGG3418

'Isopropanol based graphite resistive and dry film lubricant coating

Description: Conductive Graphite an easy-to-apply low conductance coating designed to provide conductivity, and excellent release properties to many nonconductive substrates, including most plastics.

It has been specified throughout the SEM industry as a conductive path from sample to SEM mount where Silver paint is not suitable for this application. Conductive Graphite is also a specially processed colloidal graphite dry film lubricant. It air dries rapidly at room temperature and adheres tenaciously to most substrates with minimum surface preparation. The thinness of the coating, coupled with high lubricity, provides clean, long-wearing lubrication without redesign of component dimensions.

Specific advantages and benefits offered by Conductive Graphite include

- Conductive without interfering metal EDX peaks
- Good electrical properties
- High lubricity
- Environmental friendly No ozone-depleting chemicals
- Very stable dispersion
- Easy to handle
- Air drying
- Very good impregnation properties
- Opaque at very thin layers
- High solids content
- Applicable on various substrates
- Excellent coverage of all woven and nonwoven materials
- Sub micron particles

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Typical Applications

Electrical

- Specimen preparation for SEM and EM applications
- Charge bleed
- Plating nonconductors
- Static bleed paths
- Shielding
- Impregnation or coating of gaskets for anti-adherent and anti-static properties

Lubricating, Parting and Optical

- Vacuum lubricant
- Dry lubrication of moving parts in electronic assemblies
- Anti-seize on siding surfaces
- Mold Release
- Photographic and lithographic opaque

Physical Properties (as supplied)

Colour	Black
Pigment	Colloidal Graphite 20 ±0.2% by weight 10% by volume
Binder	Thermoplastic resin
Carrier/diluent	Isopropanol
Consistency	Thixotropic gel
Density	0.90 kg/l
Flashpoint	11°C (52°F)
VOC	710 g/l (5.9 lb/gal)
Theoretical coverage	9.3 m2/kg @ 25µm (340 ft2/gal @ 1 mil)
Shelf Life	12 months from date of shipping under original seal

Typical Properties (as cured)

Colour	Matte Black
Maximum service temperature – continuous*	204°C (400°F)
Sheet Resistance	< 2400 ohms/sq @ 25µm (1 mil) dry film thickness
Coefficient of Friction	0.15 (Static)

*Service temperature under vacuum conditions is significantly higher.

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Method of Use: Surface Preparation

Substrates to be coated must be clean and dry. A solvent wipe with air dry is sufficient for smooth surfaces. For porous surfaces, use the same procedure followed by heating to drive off entrapped contaminants, solvents or moisture

Application

Conductive Graphite May be applied by brush in its undiluted form. Diluted Conductive Graphite may be applied by flow, spray, brush, dip, or sponge methods. The optimum viscosity for each method is best established by pretesting.

Curing

The coating air dries to touch in 5 minutes and is ready for use in 30 minutes. Following the air dry, bake for 5 minutes at 75°C (167°F) to achieve optimum coating qualities in a shorter curing cycle.

Handling

Conductive Graphite can be stored at temperatures between 5° and 40°C (41 and 104°F). Conductive Graphite should be stored in a cool place and should not be allowed to freeze. Containers should be tightly re-sealed after use in order to prevent solvent evaporation.

Precautions

See Material Safety Data Sheet for proper first aid instructions.

Container Size

30 gm net weight

Note

Conductive Graphite does not contain any ozone-depleting chemicals.