Technical Data Sheet

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Silfluo LC-FC260

Advanced Fluorinated Electronic Coating

Description:

The LC-FC260 Series is an advanced, fast-drying fluorinated electronic coating agent distinguished by its unique built-in yellow visual indicator.

Formulated with a premium fluoropolymer dissolved in a non-flammable, odorless fluorinated solvent, it deposits an ultra-thin, nano-scale protective film with excellent adhesion to a wide variety of substrates. The distinct clear yellow tint is specifically designed to enable immediate and effortless visual inspection of the coated areas, ensuring perfect coverage without the need for specialized UV equipment.

Engineered for high-reliability electronics, it delivers robust protection for PCBAs, FPCAs, and sensitive components against water, moisture, damp-heat conditions, acidic sweat, and corrosive gases. Furthermore, it serves as a highly effective epilame (anti-migration barrier) for precision instruments and micro-motors, while maintaining an outstanding eco-friendly profile with Zero Ozone Depletion Potential (ODP) and full RoHS compliance.

Typical Technical Properties:

Active Ingredient:	Premium Fluoropolymer
Appearance:	Clear yellow liquid
Carrier Solvent:	Fluorinated solvent
Solid Content (%):	2%, 5%, 10% (Customizable upon request)
Odor:	Odorless
Flash Point:	None
Boiling Point (° C) :	50 - 68

Cured Film Properties (By Grade)

Property	LC-FC260-2	LC-FC260-5	LC-FC260-10
Solid Content:	2.0%	5.0%	10.0%
Cured Film Color:	Yellow	Yellow	Yellow
Light Transmittance:	⩾ 90%	⩾ 90%	⩾ 90%
Single-Coat Dry Film Thickness:	1.0 - 1.5 μm	1.0 - 2.5 μm	2.0 - 3.5 μm
Tack-Free Time (Ambient)	30s	1min	2min
Static Water Contact Angle	⩾ 110°	⩾ 110°	⩾ 110°
Static n-Hexadecane Contact Angle	⩾ 75°	⩾ 75°	⩾ 75°
Surface Free Energy (mN/m)	10 - 12	10 - 12	10 - 12
Color Retention Time	At least 30 days	At least 30 days	At least 30 days
Adhesion (ASTM D3359)	5B	5B	5B
Glass Transition Temperature (Tg)	10 - 15° C	10 - 15° C	10 - 15° C

Thermal Stability (1% weight loss)	~ 250° C	~ 250° C	~ 250° C
Dielectric Constant:	3.1	3.1	3.1
Volume Resistivity:	$>10^{14}\Omega\cdot m$	$>10^{14}\Omega\cdot m$	$>10^{14}\Omega\cdot m$
Surface Resistivity:	$>10^{14}\Omega\cdot m$	$>10^{14}\Omega\cdot m$	$>10^{14}\Omega\cdot m$

Features

1. Built-in Yellow Visual Indicator: Features a distinct, clear yellow tint that enables immediate and effortless visual inspection of coating coverage without the need for specialized UV equipment.
2. Ultra-thin, Nano-Scale Conformal Coating: Forms a highly reliable protective film without compromising electrical connectivity.
3. Superior Repellency & Resistance: Delivers robust protection against water, moisture, damp-heat conditions, salt spray, and acidic sweat.
4. Excellent Adhesion: Forms a highly durable and secure bond to a wide variety of electronic substrates.
5. Rapid Room-Temperature Cure: Fast-drying formulation designed to optimize high-throughput manufacturing.
6. Outstanding EHS Profile: Non-flammable, non-hazardous, Zero ODP (Ozone Depletion Potential), and fully RoHS compliant.

Coating Process

Suitable for spray coating, dip coating, roll coating, and blade coating.

Applications

1. Visual Inspection Zones: Ideal for critical protective areas where the presence and integrity of the coating must be quickly verified by visual inspection.
2. PCBA & FPCA Shielding: Safeguards sensitive printed circuit boards and electronic components from aggressive condensation, dust, industrial oils, solvents, and corrosive gases.
3. Precision Anti-Migration (Epilame): Acts as a critical barrier to prevent the creeping of lubricating oils in micro-motors and precision mechanical assemblies (e.g., high-end watches and optical cameras).
4. HDD Component Protection: Effectively shields Magnetoresistive (MR) heads in hard disk drives from lubricant transfer and particulate contamination.
5. Component Sealing: Reliable environmental sealing for precision micro-parts.

Packing

In 100g, 500g, 1kg, 25kg.

Safety and Storage

Keep in a cool, dry, and well-ventilated environment, strictly avoiding direct sunlight, heat, and ignition sources. The shelf life is 24 months from the date of manufacture when stored in original unopened containers. Classified as a non-hazardous substance for transport and handling. Storage beyond the shelf life does not necessarily

mean the product is unusable; however, the properties required for the intended use must be thoroughly checked for quality assurance reasons prior to application.