Technical Data Sheet

www.silfluosilicone.com

Silfluo CC8102

Acrylic Conformal Coating

Description

Silfluo CC8102 is a premium, single-component, modified acrylic conformal coating engineered for rapid drying and versatile application. Upon curing, it forms a dense, durable, and highly protective film that shields printed circuit boards (PCBs) and sensitive electronic components from harsh environmental stress. The formulation incorporates a built-in fluorescent UV tracer, making it highly visible under black light to facilitate easy automated or manual quality inspection.

Application

1. Electronic Circuit Protection: Delivers exceptional resistance against moisture, salt spray, mildew, corrosive gases, and long-term aging.
2. Industry Specific: Highly recommended for ensuring the reliability of PCBs in smart metering, household consumer appliances, and automotive electronics.

Feature

- Eco-Friendly Formulation: Single-component system formulated with low-toxicity, eco-friendly solvents.
- Fast Processing: Extremely rapid tack-free time (5 minutes) significantly increases production throughput.
- Excellent Wettability: Ensures seamless flow and compatibility across various PCB substrates and soldering points. Available for spray, dip, or brush applications.
- Extreme Thermal Stability: Maintains protective integrity in continuous operating temperatures from -40°C to +120°C.
- Highly Reworkable: The cured film can be easily removed or touched up using our dedicated Silfluo rework solvent, allowing for seamless component repair or replacement.

Typical Uncured Liquid Properties:

Color	Colorless to light yellow liquid
Viscosity(mPa.s)	52
Specific gravity	0.83
Tack-Free Time (23℃, 80μm thickness)	5min

Cured Film Profile & Electrical Properties:

Full cure time(80μm thickness)	24 hours @ Room Temp 2 hours @ 70℃
Hardness(Shore A)	60
Adhesion (Cross-Cut Test)	Class 0 (Excellent / No detachment)

Elongation at Break(%)	20
Volume resistivity (ohm-cm)	8.5×10^{15}
Dielectric strength (KV/mm)	30
Surface resistance (ohm)	4.3×10^{14}
Using temperature (°C)	-40~120

Standard conditions: temperature 23±2°C, relative humidity 50±5%RH.

Application Guidelines

1. Surface Preparation: The PCB surface must be thoroughly cleaned and fully dried. Ensure the removal of all flux residues, dust, grease, and other contaminants to achieve optimal coating adhesion and performance.
2. Preparation: Shake or agitate the container thoroughly before use to ensure the UV tracer is evenly distributed.
3. Application: When applying to PCBs, maintain the boards in a horizontal position during coating and the initial flash-off period to ensure a uniform, even film thickness.
4. Inspection & Rework: Inspect coverage using a standard UV light. If rework is required, use the designated Silfluo Conformal Coating Remover.

Safety & Handling Precautions

Safety: Once fully cured, the coating is completely safe and non-toxic. However, the uncured liquid contains solvents. Avoid direct skin contact and prolonged inhalation of vapors. If splashed into the eyes, flush immediately with copious amounts of clean water and seek medical attention. Always refer to the Material Safety Data Sheet (MSDS) before use.

Packaging & Storage

Packaging: Available in 1kg and 5kg containers. (Customized industrial packaging available upon request).
Storage: Store in a cool, dry, and well-ventilated environment. Strictly avoid direct sunlight and ignition sources. Maintain storage temperatures between 5°C and 28°C.
Shelf Life: 12 months in original, unopened packaging.