Technical Data Sheet

www.silfluosilicone.com

Silfluo CC7900-150

UV/Moisture Dual-Cure Conformal Coating

Description

Silfluo CC7900-150 is a premium, single-component, solvent-free conformal coating engineered with an advanced UV/Moisture dual-curing mechanism. It is designed to cure rapidly under UV light, while a secondary moisture-cure mechanism ensures complete crosslinking in shadowed areas where UV light cannot penetrate. Upon curing, it forms a highly dense and robust protective film over printed circuit boards (PCBs), electronic components, and solder joints. It features low odor, fast curing, and contains a fluorescent tracer for easy visual inspection under UV black light.

Application

1. Electronic Circuit Protection: Provides outstanding water/moisture resistance, anti-fungal (mold) protection, corrosion resistance, and long-term aging durability.
2. Industry Specific: Ideal for PCB protection in smart meters, household consumer appliances, and automotive electronics.

Feature

- Eco-Friendly Formulation: Single-component and entirely solvent-free.
- Fluorescent Tracer: Built-in UV indicator ensures reliable automated or manual inspection.
- Superior Barrier: Delivers excellent salt-spray resistance and robust protection against moisture and condensation.
- Excellent Wettability: Ensures seamless flow and coverage across various PCB substrates and materials.
- Highly Reworkable: The cured film can be easily removed or touched up for component repair.

Typical Uncured Liquid Properties:

Base Material	Polyurethane acrylate
Color	Colorless to pale yellow liquid
Viscosity(mPa.s)	150
Specific gravity (@23℃)	1.10
Surface dry energy (mJ/cm2)	1000

Cured Film Profile & Electrical Properties:

Adhesion (Cross-Cut Test)	Class 0 (Excellent)
Hardness(Shore A)	60
Tensile Strength(MPa)	3.57

Elongation At Break(%)	199
Volume resistivity (ohm-cm)	3.7×10^{14}
Dielectric constant (1MHz)	3.2
Dielectric strength (KV/mm)	23
Surface resistance (ohm)	4.3×10^{14}
Flame retardant grade (UL 94)	V0
Operating temperature (℃)	-60~135

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

Application & Curing Guidelines

1. Light & Moisture Sensitive: Keep the container tightly closed and handle the product in a dry environment. Strictly minimize exposure to sunlight, UV light, and strong indoor lighting during storage and use.
2. Surface Preparation: Clean the substrate thoroughly to remove dust, oil/grease, fingerprints, and other contaminants to achieve optimal adhesion.
3. Application Methods: Compatible with manual brushing, automated selective spray coating, and dipping. If the material is agitated, allow it to stand until air bubbles dissipate before use.
4. Curing Process:
   - UV Cure: Speed depends on UV intensity, wavelength, film thickness, and distance. Typically, coating becomes tack-free immediately after sufficient UV exposure.
   - Moisture Cure (Shadowed Areas): For areas UV light cannot reach, moisture cure will proceed automatically. Room-temperature cure takes ~3 days for basic cure, and 7–14 days to reach ultimate properties.
5. Cleanup: Uncured material can be removed using suitable organic solvents (e.g., IPA, MEK).

Safety, Packaging & Storage

Packaging: Available in 1kg opaque containers.

Safety Precautions: Avoid skin contact with the uncured material. In case of eye contact, rinse immediately with plenty of water and seek medical attention.

Storage Conditions: Store tightly sealed in a cool, dry, and dark place. Maintain storage temperatures strictly between 8°C and 25°C.

Shelf Life: 6 months in original, unopened packaging.