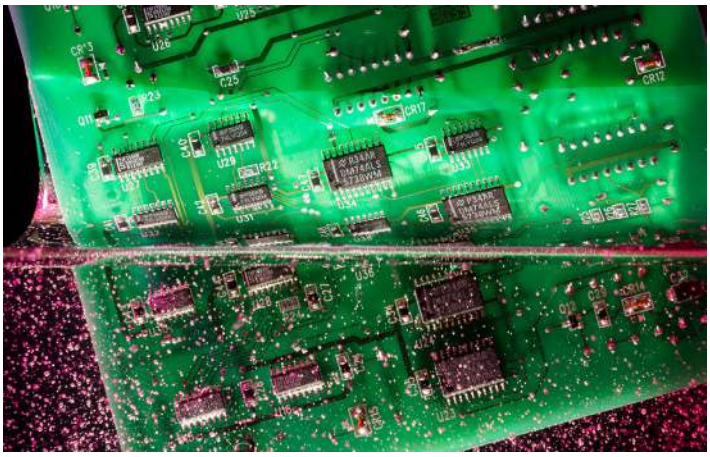
Fine-L-Kote™ SRV Silicone Coating

Product# 2127

Product Description

Fine-L-Kote™ SRV is a one-part, clear conformal coating with a moisture and abrasion resistant surface after cure.

Silicone conformal coatings are the most universal coating, offering protection for a wide variety of environments. This coating offers a resilient, stress reducing protection, while containing reduced VOC content. Utilizing a moisture/humidity-based curing mechanism, this coating cures quickly at ambient conditions.



Features / Benefits

- Low VOC solvent-borne resin coating
- Cures to a tough, elastoplastic, resilient, abrasion resistant surface
- Exceptional dirt, dust, and soil repellency -- surfaces remain clean longer
- Extends component life by protecting against adverse environments, with exceptional resistance to moisture, salt, fungus, corrosive vapors, and severe environments
- Outstanding insulation properties help with circuit insulation characteristics
- Excellent flexibility minimizes and absorbs thermal and mechanical stress
- Engineered to withstand heat generated by electronic circuitry as well as climatic temperature extremes
- Superior transparency
- Room temperature cure, no ovens required
- Optional mild heat acceleration (after solvent flash-off) can speed in-line processing
- UV indicator allows for manual or automated inspection
- UL 94 V-0 flammability rating

Specifications

- IPC-CC-830B
- UL94 flammability rating V-0
- MIL-STD 810G salt spray test
- MS941-04 salt spray test

Applications

- Data Communications
- Instrumentation
- Automotive Manufacturing
- Marine Manufacturing
- Process Control

Typical Properties

Physical state	One-part liquid
Color (cured)	Translucent (clear)
Solubility in water	Insoluble
Flash point (Closed cup)	10°F (-12.2°C)
UV indicator	Yes
RoHS Compliant	Yes
Shelf life	12 mo. from production date

Fine-L-Kote SRV – Standard Viscosity

Coverage (1 mil dry film)	723 ft² per gallon
Viscosity (cP)	82 +/-20
Specific gravity (water = 1) @68°F	0.85
Solids / NVC (%)	45 +/-5
VOC	Carb – 25.2% SCAQMD – 415 g/L Federal – 13.2% MIR – 0.16

Fine-L-Kote SRV 950 – High Viscosity

Coverage (1 mil dry film)	1285 ft² per gallon
Viscosity (cP)	950 +/-100
Specific gravity (water = 1) @68°F	0.95
Solids / NVC (%)	85 +/-5
VOC	Carb – 4.7% SCAQMD – 152 g/L Federal – 3.8% MIR – 0.04

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Performance and Application Data

Tack-Free Time – Accelerated RH	10 Min.@ 140°F / 60°C, 33%
Tack-Free Time – Ambient	30 Min.
Full Cure† Time - Accelerated	2 Step: 30 Min.@ 90°F / 32°C then 100 Min.@199°F / 93°C
Full Cure† Time - Ambient	24 hrs @77°F / 25°C, 30-60% RH
Operating Temp Range*	-76° to 392°F / -60° to 200°C
Hardness (shore A)	90
Dielectric Strength* - volts/mil - kV/mm	>720 >28
Volume Resistivity (ohm – cm)*	>1.4 x 10^{12}
Dielectric Constant at 100 hz* Dielectric Constant at 100 kHz* (ASTM D150)	3.75 3.85
Dissipation Factor at 100 hz* 100 Hz to 100 kHz at 100 kHz* (ASTM D150)	1.017 0.719
Hardness Shore D*	88

**Properties for cured resin only.*
†Full physical and electrical properties obtained after 7 days.

Agency Qualifications	meets IPC-CC-830B
Moisture Resistance	Excellent
Soil resistance	Excellent
Removability	Excellent
Ease of Repair	Excellent
Flexibility	Excellent
Adhesion	Excellent
Abrasion Resistance	Fair
Solvent Resistance	Good

Compatibility

Fine-L-Kote™ SRV is generally compatible with most materials found on printed circuit boards. As with any chemical product, product/component compatibility must be determined on a non-critical area prior to use.

Usage Instructions

For industrial use only. Read SDS carefully prior to use.

Application Methods:

- *Spray*
- *Dip*
- *Brush*
- *Flow*
- *Automated pattern coating*

Spray Application: Apply top to bottom, allowing coating to flow evenly around components. Rotate PCB 90º and repeat application. Rotate and apply coating two additional times, then allow board to cure. If additional thickness is desired, apply additional coatings. When using liquid spray with automatic dispensing equipment, adjustments may be required in application rate and viscosity.

Dip Application: Using automatic equipment or hand immersion technique, slowly immerse PCB into the coating and remove slowly. Use an average rate of approximately 1 foot per minute. After allowing the board to cure, process may be repeated to achieve desired thickness.

Brush Application: Evenly apply coating to areas desired at thickness required. Allow time for curing before reapplying to achieve a thick coating. Use WonderMASK to protect components during conformal coating process. After application, cured Fine-L-Kote™ may be removed using Techspray Conformal Coating Removal Pen (2510-N or 2510-P).

Processing / Curing

Time to reach a tack-free state can be accelerated with heat. Allow time for the solvent to evaporate before increasing temperatures in an oven. If coating blisters or bubbles, increase time at room temperature for the solvent to flash off before placing PCB into the oven.

Pot Life and Cure Rate

The pot life Fine-L-Kote SRV depends on the application method. To extend pot life, reduce exposure to moisture by using dry air or dry nitrogen blanketing.

Adhesion

Fine-L-Kote SRV is formulated to provide adhesion to most common PCB and component materials. Before applying Fine-L-Kote™ conformal coatings, clean circuit boards to remove contamination and allow to dry. Cleaning may be performed with Techspray G3, E-LINE™ and Precision-V flux removers.

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Repairability

When assembling PCB's, it may be necessary to rework or repair damaged boards. Fine-L-Kote™ SRV has good reparability because it can be removed by scraping or cutting, or by using solvents or stripping agents. To replace one component, the coating can be burnt through by applying a soldering iron on the coated solder joint. Use proper ventilation / fume extraction. After repair is complete, clean area using a Techspray solvent cleaner, allow to dry, and then recoat.

Environmental Impact Data

CFC 0.0%
HCFC 0.0%
Cl. Solv. 0.0%
HFC 0.0%
ODP 0.00

CFC, HCFC, CL. SOLV., and HFC numbers shown are the content by weight. Ozone depletion potential (ODP) is determined in accordance with the Montreal Protocol and U.S. Clean Air Act of 1990. The ODP of this product is 0.0. It is the sum of the ODP of the substances that may contribute to the depletion of stratospheric ozone, based upon the weight of each substance in the product's formulation.

Environmental Policy

Techspray® is committed to developing products to ensure a safer and cleaner environment. We will continue to meet and sustain the regulations of all federal, state and local government agencies.

Packaging and Availability

Fine-L-Kote SRV – Standard Viscosity

2127-P	1 pint / 0.47L liquid
2127-G	1 gallon / 3.8L liquid
2127-5G	5 gallon / 18.9L liquid
2127-54G	54 gallon / 204L liquid

Fine-L-Kote SRV 950 – High Viscosity

2127-P950	1 pint / 0.47L liquid
2127-G950	1 gallon / 3.8L liquid
2127-5G950	5 gallon / 18.9L liquid
2127-54G950	54 gallon / 204L liquid

Resources

Techspray® products are supported by global sales, technical and customer services resources.

For additional technical information on this product or other Techspray® products in the United States, call the technical sales department at 800-858-4043, email tsales@techspray.com or visit our web site at: www.techspray.com.

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