

## 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

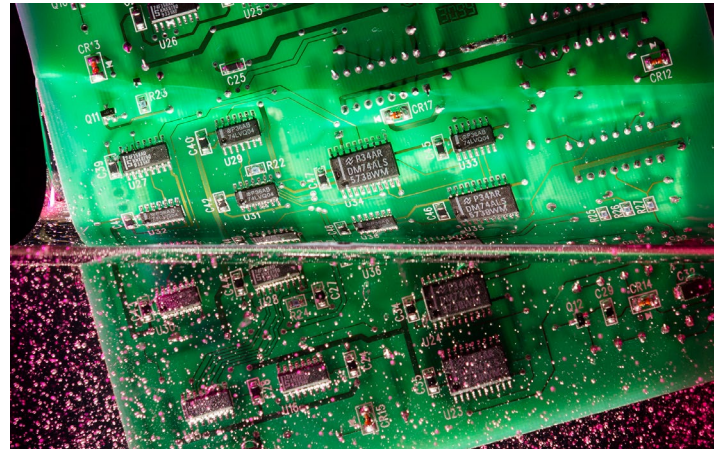
- Low VOC solvent-borne resin coating
- Cures to a tough, elastoplastic, resilient, abrasion resistant surface
- Exceptional dirt, dust, and soil repellency -- surfaces remain clean longer
- Extends component life by protecting against adverse environments, with exceptional resistance to moisture, salt, 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

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

#### Fine-L-Kote SRV – Standard Viscosity

|   |   |
|---|---|
| <b>Coverage (1 mil dry film)</b>          | 723 ft <sup>2</sup> per gallon                                    |
| <b>Viscosity (cP)</b>                     | 82 +/-20  |
| <b>Specific gravity (water = 1) @68°F</b> | 0.85  |
| <b>Solids / NVC (%)</b>                   | 45 +/-5   |
| <b>VOC</b>                                | Carb – 25.2%<br>SCAQMD – 415 g/L<br>Federal – 13.2%<br>MIR – 0.16 |

#### Fine-L-Kote SRV 950 – High Viscosity

|   |   |
|---|---|
| <b>Coverage (1 mil dry film)</b>          | 1285 ft <sup>2</sup> per gallon                                 |
| <b>Viscosity (cP)</b>                     | 950 +/-100  |
| <b>Specific gravity (water = 1) @68°F</b> | 0.95  |
| <b>Solids / NVC (%)</b>                   | 85 +/-5   |
| <b>VOC</b>                                | Carb – 4.7%<br>SCAQMD – 152 g/L<br>Federal – 3.8%<br>MIR – 0.04 |

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### Performance and Application Data

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

## Fine-L-Kote™ SRV Silicone Coating Product# 2127

### 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

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

#### Fine-L-Kote SRV 950 – High Viscosity

|                    |                         |
|--------------------|-------------------------|
| <b>2127-P950</b>   | 1 pint / 0.47L liquid   |
| <b>2127-G950</b>   | 1 gallon / 3.8L liquid  |
| <b>2127-5G950</b>  | 5 gallon / 18.9L liquid |
| <b>2127-54G950</b> | 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](mailto:tsales@techspray.com) or visit our web site at: [www.techspray.com](http://www.techspray.com).

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