

# FINE-L-KOTE LED

2120

## Product Description

---

Fine-L-Kote™ LED is specifically designed and formulated for light emitting diode applications, where a completely transparent silicone coating is required to provide a tough, protective coating. Fine-L-Kote™ LED provides maximum flexibility for extreme temperatures on the flex and rigid circuitry found on LED displays. Cured coatings are hydrolytically stable and retain their physical electrical properties after high temperature and humidity exposure. Fine-L-Kote™ LED will not stress delicate circuit components, and meets the performance parameters (without UV traceability) of MIL-I-46058C, Type SR.

### Features / Benefits

- Silicone coating transparent to visible wavelengths, will not block or change light intensity or wavelength
- Extends component life by protecting against adverse environments
- Good insulation properties help with circuit insulation characteristics, excellent flexibility minimizes thermal stress
- Resists moisture, salt, fungus, corrosive vapors, and severe environments
- Engineered to withstand heat generated by electronic circuitry as well as climatic temperature extremes
- Compliant to IPC-CC-830A
- Room temperature cure
- RoHS compliant

### Applications

- LED Displays and controls
- Data Communications
- Instrumentation
- Automotive Manufacturing
- Marine Manufacturing
- Process Control

## Performance

---

- Moisture Resistance..... Excellent
- Removability..... Excellent
- Ease of Repair..... Excellent
- Flexibility..... Excellent
- Adhesion..... Excellent
- Abrasion Resistance..... Fair
- Solvent Resistance..... Good

## Compatibility

---

Fine-L-Kote™ LED 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.

## Typical Product Data and Physical Properties

---

<b>Usable Temp. Range of Cured Coatings</b>	(-85°F to 390°F) (-65°C to 200°C)
<b>Tack Free Time</b>	15 min.
<b>Curing Conditions: Full Cure (@ 80% R.H.)</b>	24 Hours @ 77°F (25°C) or 8 Hours @ 170° (77°C)
<b>Specific Gravity (Water=1) @ 68°F</b>	0.93
<b>Viscosity (cps @ 77°F)</b>	65 ± 5 cps
<b>Flash Point (TCC)</b>	53°F
<b>Volume Resistivity (ohm/cm)</b>	1.5 x 10 <sup>16</sup>
<b>Dielectric Breakdown (volts/mil)</b>	1100
<b>Thermal Conductivity (Cal-cm/sec-cm<sup>2</sup>-°C)</b>	2.9 x 10 <sup>-4</sup>
<b>Coefficient of Thermal Expansion (in/in/°C)</b>	2.1 x 10 <sup>-4</sup>
<b>VOC* Content:</b>	
<b>CARB</b>	56.3%
<b>SCAQMD</b>	570 g/L
<b>Federal</b>	56.3%
<b>RoHS Compliant</b>	Yes

## Usage Instructions

---

For industrial use only. Read MSDS carefully prior to use. 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 defluxers.

### 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).

**Environmental Impact Data**

ENVIRONMENTAL IMPACT DATA			
CFC	0.0%	VOC	56.3%
HCFC	0.0%	HFC	0.0%
Cl. Solv.	0.0%	ODP	0.00

CFC, HCFC, CL. SOLV., VOC, 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.

**Packaging and Availability**

Fine-L-Kote LED is available in the following sizes:

2120-P.....1 Pint Liquid  
 2120-G.....1 Gallon Liquid  
 2120-5G.....5 Gallon Liquid

**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.

**Resources**

Techspray® products are supported by a 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).

**North America**

Techspray  
 8125 Cobb Center Drive  
 Kennesaw, GA 3052  
 800-858-4043  
 email: [tsales@techspray.com](mailto:tsales@techspray.com)

**Europe**

ITW Contamination Control BV  
 Saffierlaan 5  
 2132 VZ Hoofddorp  
 The Netherlands  
 +31 88 1307 400  
 email: [info@itw-cc.com](mailto:info@itw-cc.com)

**Countries Outside US**

Call to locate a distributor  
 in your country.

Important Notice to Purchaser/User: The information in this publication is based on tests that we believe are reliable. The results may vary due to differences in tests type and conditions. We recommend that each user evaluate the product to determine its suitability for the intended application. Conditions of use are outside our control and vary widely. Techspray's only obligation and your only solution is replacement of product that is shown to be defective when you receive it. In no case will Techspray® be liable for any special, incidental, or consequential damages based on breach of warranty, negligence or any other theory.