Fine-L-Kote LED2 Silicone Coating

Product# 2125

Product Description

Fine-L-Kote™ LED2 is specifically designed and formulated for light emitting diode applications, where a completely transparent coating is required to provide a tough, extremely flexible protective coating. Fine-L-Kote LED2 provides highest flexibility for extreme temperatures on the flex and rigid circuitry found on LED displays, and provides an outstanding non-stick surface for soil repellency. Cured coatings are hydrolytically stable and retain their physical electrical properties after high temperature and humidity exposure, without interfering with light wavelength or intensity. Fine-L-Kote LED2 will not stress delicate circuit components.

Features / Benefits

- Transparent to visible wavelengths, will not block or change light intensity or wavelength
- Exceptional dirt, dust, and soil repellency; surfaces remain clean longer
- 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
- Meets IPC-CC-830B, Type SR without UV traceability
- UL94 V0 flammability rating
- Room temperature moisture cure, can be heat accelerated
- RoHS compliant

Specifications

- IPC-CC-830B (w/o UV)
- UL94 flammability rating V-0
- MIL-STD 810G salt spray test
- IESNA LM-79-2008
- ANSI NEMA ANSLG C78.377:2015

Applications

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

Typical Product Data and Physical Properties

Physical state	Liquid
Flash point (Closed cup)	26°F (-3.3°C)
Specific gravity (water = 1) @68°F	0.83
VOC	Carb – 11.7% SCAQMD – 108 g/L Federal – 11.7%
RoHS Compliant	Yes
Shelf life	12 mo. from production date

Performance and Application Data

Coverage (1 mil dry film)	1 gal liquid = 723 ft^2 (67 m^2)
Tack Free Time (min)	30
Full Cure† Time - Accelerated	8 hrs @ 170°F / 77°C
Full Cure† Time – 2-step	30 Min.@ 90°F / 32°C 100 Min.@199°F / 93°C
Full Cure† Time - Ambient	72 hrs @77°F / 25°C, 30-60% RH
Viscosity (cps)	66-76
Solids	43%
Hardness (shore A)	86
UV Indicator	no
Operating Temp Range*	-76° to 392°F (-60° to 200°C)
Volume Resistivity (ohm – cm)*	>1.4 x 10^{12}
Dielectric Strength (volts/mil)*	>720
Dielectric Constant, 100 Hz to 100 kHz (ASTM D150)*	3.75, 3.85
Dissipation Factor, 100 Hz to 100 kHz (ASTM D150)*	1.017, 0.719

**Properties for cured resin only.*

†Full physical and electrical properties obtained after 7 days.

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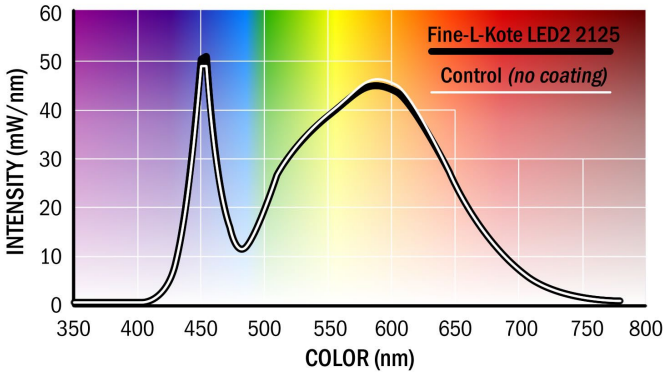
Optical Clarity Validation



3rd party testing by Intertek, standards IESNA LM-79-2008 and ANSI NEMA ANSLG C78.377:2015.

Compatibility

Fine-L-Kote™ LED2 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

Moisture Resistance	Excellent
Soil resistance	Excellent
Removability	Excellent
Ease of Repair	Excellent
Flexibility	Excellent
Adhesion	Excellent
Abrasion Resistance	Fair
Solvent Resistance	Good

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 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).

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Packaging and Availability

2125-5G	5 Gallon Liquid

Environmental Impact Data

CFC 0.0%
HCFC 0.0%
Cl. Solv. 0.0%
VOC..... 11.7%
HFC 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.

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 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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