Konform® LED

Product# CTLED1, CTLED5

Product Description

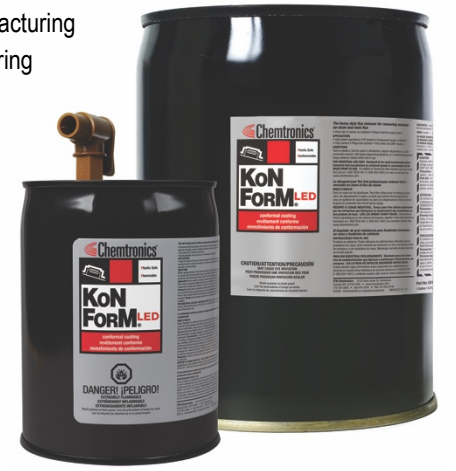
Konform LED is specifically designed and formulated for light emitting diode applications, where a completely transparent silicone coating is required to provide a tough, protective coating. Konform LED provides maximum flexibility for extreme temperatures on the flex and rigid circuitry found on LED displays. Cured coatings are hydrolytically stable and retain their physical electrical properties after high temperature and humidity exposure. Konform® LED will not stress delicate circuit components.

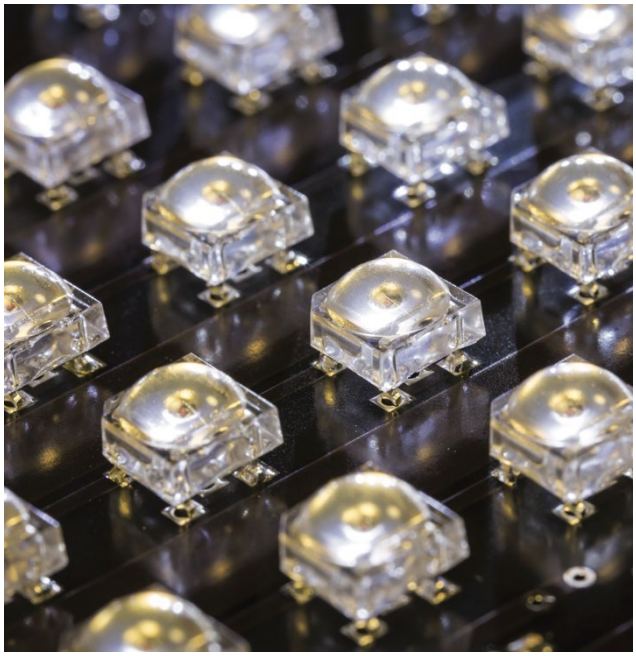
- Silicone coating transparent to visible wavelengths, will not block or change light intensity or wavelength
- Extends component life by protecting against adverse environments
- Good insulation properties help with circuit insulation characteristics, excellent flexibility minimizes thermal stress
- 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 and UL 94 V-0
- Room temperature cure
- RoHS compliant

Typical Applications

Konform LED is ideal for applications in:

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





Typical Product Data and Physical Properties

Usable Temp. Range of Cured Coatings	-85°F to 390°F (-65°C to 200°C)
Tack Free Time	15 min.
Curing Conditions: Full Cure (@80% R.H.)	24 Hours @ 77°F (25°C) 8 Hours @ 170°F (77°C)
Coverage (1 mil dry film)	1 gal liquid = 753 ft^2 ($70m^2$)
Specific Gravity (water = 1@ 68ºF)	0.93
Viscosity (cps @ 77ºF)	65± 5 cps
Flash Point (TCC)	53°F / 11.7ºC
Volume Resistivity (ohm/cm)	1.5×10^{16}
Dielectric Breakdown (volts/mil)	1100
Thermal Conductivity (Cal-cm/sec-cm^2-ºC)	2.9×10^{-4}
Coefficient of Thermal Expansion (in/in/ºC)	2.1×10^{-4}
VOC Content:	
Carb	56.3%
SCAQMD	570 g/L
Federal	56.3%
Shelflife	1 year from production date after opening
RoHS Compliant	Yes

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Compatibility

Konform 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.

Performance

Moisture 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 SDS carefully prior to use.

Before applying Konform LED conformal coatings, clean circuit boards to remove contamination and allow to dry. Cleaning may be performed with Chemtronics Flux-Off products.

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 APPLICATIONS: Evenly apply coating to areas desired at thickness required. Allow time for curing before reapplying to achieve a thick coating. Use Chemask to protect components during conformal coating process.

REMOVAL: After application, cured Konform LED may be removed by soaking in Chemtronics Electro-Wash Two Step.

Availability

CTLED1	1 Gal / 3.7 L Liquid
CTLED5	5 Gal / 19 L Liquid

Environmental Impact Data

CFC	0.0%
HCFC	0.0%
CL Solv.	0.0%
VOC	56.3 %
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.

Technical and Application Assistance

Chemtronics provides a technical hotline to answer your technical and application related questions.
The toll free number is: 1-800-TECH-401.

Note:

This information is believed to be accurate. It is intended for professional end users having the skills to evaluate and use the data properly. CHEMTRONICS does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.