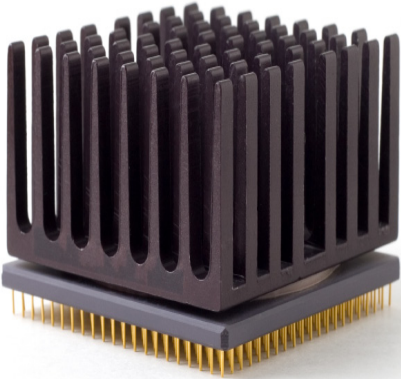


CSL850 | Heat Sink Silicone Compound



Benefits

- Electrically insulating
- Thermally conductive
- Non-corrosive
- Resists moisture and temperature extremes
- Reworkable

Thermal Management in Electrical and Electronics

The trend towards miniaturization of systems and increased circuit density sees electronics devices, modules and systems generating increasingly larger amounts of heat. Dissipation of the excess heat is critical to the operational lifetime and reliability of the electronics. One method of removing the excess energy is the use of mechanical means such as heat sinks and fans; another is the use of heat dissipating materials to couple the electronics and heat sinks or fan sinks, as well as to couple interfaces with lids, baseplates and heat spreaders.

Why do silicone compounds excel in thermal management applications?

Silicone possesses inherent physical properties that make it an excellent choice for thermal management. Non-curing compounds in particular:

- require no mixing or curing
- can be applied with simple dispensing or printing processes
- allow for very thin bond lines using minimal pressures
- achieve intimate surface contact resulting in low interfacial resistance
- allow for rework
- are non-corrosive
- are electrically insulating
- are thermally conductive
- have wide operating temperature range

CSL850 100% Heat Sink Compound

CSL850 Heat Sink Compound is a non-curing, water resistant paste which is heavily filled with conductive metal oxides. This compound will not dry out, harden or melt in exposure to temperatures up to 250°C (482°F).

CSL850 features high thermal conductivity, low bleed, and allows for easy rework.

CSL850 maintains a positive heat sink seal that facilitates heat transfer from the device, to the heat sink, thereby increasing overall efficiency of the device.

CSL850 is primarily used for heat management in electrical/electronic component manufacturing.

... CSL850 Product Characteristics ↘



www.cslsilicones.com

CSL850 | Heat Sink Silicone Compound



Typical Applications

- CPU's and microprocessors
- Power semiconductors and modules
- Sensors
- Power supplies
- High speed mass storage drives
- Motor controls
- High voltage transformers
- Automotive mechatronics

Features

- Non-curing compound
- High thermal conductivity
- High dielectric strength
- Low bleed
- Easy rework



CSL Silicones Inc.
144 Woodlawn Rd. W.
Guelph, ON Canada N1H 1B5
+1 519.836.9044
+1 800.265.2753
www.cslsilicones.com

CSL850 Intended Uses

CSL850 is generally used to thermally couple electrical/ electronic devices to heat sinks. Typical applications include thermal coupling electrical/electronic devices to heat sinks; often used along with mechanical fasteners to prevent movement. It is applied to the base and mounting studs of transistors, diodes and silicon controlled rectifiers. It can also be used as a non-flammable coating for flyback transformer connections and similar applications.

CSL850 Typical Properties[‡]

Cure System	Non-curing
Dielectric Strength ³ ASTM D149 [V/mil]	600
Volume Resistivity ³ ASTM D257 [ohm.cm]	3.0 x 10 ¹⁵
Thermal Conductivity ³ [W/mk]	0.69

[‡]Data is subject to change without notice. These values are not intended for use in preparing specifications. For more complete information, please refer to the current Technical Data Sheets for these products.

NOTES

- 1 Minimum extrusion rate @ 25°C (90psi, 3.2mm orifice)
- 2 Standard Conditions are 25°C (77°F) and 50% relative humidity
- 3 Cured for 7 days at Standard Conditions²

CSL850 Availability

Colors[¥]



White 001

[¥]The color chips are only representations of actual colors and should not be considered an exact color match to finished product.

CSL850 is available in white.

Packaging

CSL850 is available in 1 US gallon cans, 5 US gallon pails, and 200 liter drums.

Shelf Life and Storage

CSL850 has a shelf life of sixty months from date of manufacture when stored in the original unopened container in dry, shaded conditions, away from sources of heat or ignition, and stored at or below 90°F (32°C).