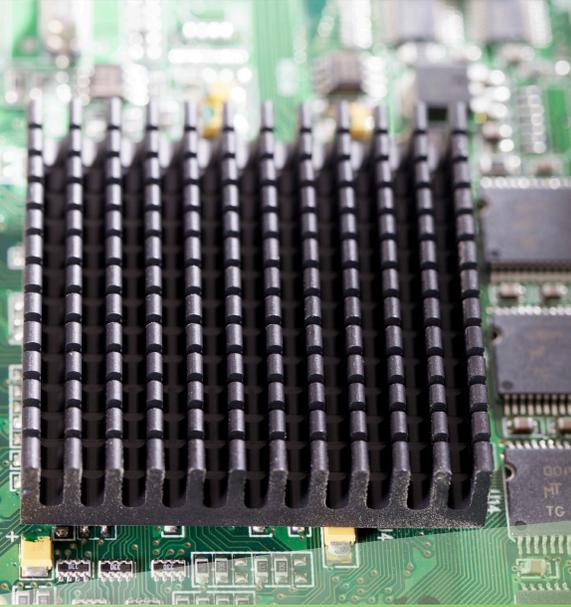


CSL519 | Heat Conductive Silicone Sealant



Benefits

- Electrically insulating
- Thermally conductive
- Low surface tension
- Non-corrosive
- Resists moisture, vibration, and temperature extremes



www.cslsilicones.com

Thermally Conductive Sealants

With the increase in processing power and the trend toward smaller, more compact electronic modules, the need for thermal management is growing.

Long-term, reliable protection of sensitive circuits and components is important in many of today's delicate and demanding electronic applications.

Thermally conductive silicones function as heat transfer media, durable dielectric insulators, barriers against environmental contaminants, and as stress-relieving shock and vibration absorbers over a wide temperature and humidity range.

Why do silicones excel in thermal management applications?

Silicone sealants possess inherent physical properties that make them an excellent choice for thermal management; silicones:

- are electrically insulating
- are thermally conductive
- have a low surface tension that enables them to wet most surfaces, creating better interface and lowering the thermal contact resistance between the substrate and the material
- are resistant to moisture and vibration and have good chemical stability
- are non-corrosive
- sustain physical and electrical properties over a wide range of operating temperatures

CSL519 100% Silicone Heat Conductive Sealant

CSL519 is a one part, moisture cure, room-temperature vulcanizing (RTV) electronic grade 100% silicone sealant.

CSL519 is designed for use in corrosion-sensitive electronic equipment with no adverse effects.

CSL519 possesses good thermal conductivity and high dielectric strength for maximum protection for electronics.

CSL519 cures to form a tough, high modulus rubber with long-term flexibility and durability.

CSL519 cures fully in place and will not bleed or migrate into other components.

CSL519 remains flexible from -40°C to 200°C (-40°F to 392°F).

CSL519 is primarily used for heat management in electrical and electronic component manufacturing.

CSL519 | Heat Conductive Silicone Sealant



Typical Applications

- Thermocouple Wells
- Solar panels
- Heat exchangers
- Thermo-electric coolers
- Thermal coupling and sealing in appliances

Features

- **Neutral cure formulation will not corrode copper, brass or silver**
- Thermally conductive
- High dielectric strength
- Low stress
- Will not bleed or migrate
- Self-priming adhesion



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CSL519 Intended Uses

CSL519 is generally used for thermal management of electrical and electronic devices. It can be used as an effective thermal coupler for any heat sink device where efficient cooling and electrical isolation is required. It can also be used where a seal against moisture must be made.

CSL519 Typical Properties[‡]

Cure System	One part RTV/Oxime
Flowability	Non-flow
Extrusion Rate ¹ [g/min]	100
Cure Time at Standard Conditions ² [hours]	24
Tensile Strength ³ ASTM D412 [psi]	250
Hardness ³ ASTM D2240 [points]	40 Shore A
Elongation at Break ³ ASTM D412	350%
Dielectric Strength ³ ASTM D149 [V/mil]	385
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

CSL519 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.

CSL519 is available in white.

Packaging

CSL519 is available in 300mL (10.2 fl. oz.) cartridges, 19L (5 US gallon) pails and 189L (50 US gallon) drums.

Shelf Life and Storage

CSL519 has a shelf life of six 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).