CSL520 | Encapsulating Silicone Sealant

Benefits

- Non-corrosive
- Resists moisture, vibration, and temperature extremes
- Excellent dielectric properties
- Repairable

csl silicones inc.

www.cslsilicones.com

Encapsulating and Potting Sealants

Encapsulants (or pottants) are used to completely embed and protect electronic circuitry.

By completely isolating the circuits, elastomeric encapsulants provide superior protection from the harmful effects of chemical attack, humidity, extreme temperatures, moisture ingress and other contaminants. They also provide electrical insulation for high voltages. Finally they protect the circuit and interconnections from mechanical shock, thermal shock, and vibration especially in modules sensitive to mechanical stress.

Why do silicones excel in encapsulating/ potting applications?

Silicone sealants possess inherent physical properties that make them an excellent choice for encapsulating or potting; silicone sealants:

- are easy to use and repair
- have excellent electrical properties
- are electrically insulating
- can be thermally conductive
- are flexible
- resist ultra-violet rays, ozone and weathering
- are non-corrosive and have low toxicity
- are chemically resistant
- absorb mechanical shock and vibration
- are resistant to humidity, moisture and are water repellent
- have wide operating temperature range

CSL520 100% Silicone Encapsulating and Potting Sealant

CSL520 is a two-part, RTV (Room Temperature Vulcanizing) electronic grade silicone sealant/adhesive.

CSL520 can be used in corrosion-sensitive electronic equipment with no adverse effects.

CSL520 remains flexible from -40˚C to 200˚C (-40˚F to 392˚F).

CSL520 is recognized under the Components Program of Underwriters Laboratories Inc.®

CSL520 silicone potting and encapsulating sealant is a pourable base which, with the addition of a catalyst becomes a firm, flexible sealant when cured at room temperature.

CSL520 is easily mixed and poured without preheating, cures in any thickness without heat and is easy to repair.

... CSL520 Product Characteristics ↳

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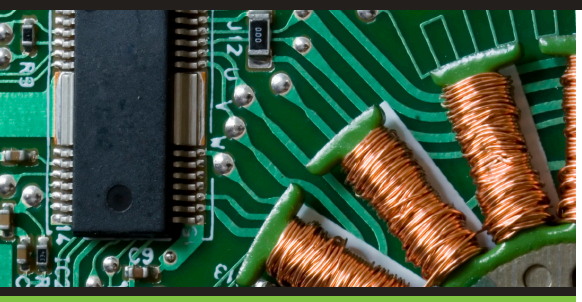

Typical Applications

- Encapsulating and potting for a broad range of electronic modules
- High voltage electrical equipment
- Power modules

Features

- **Recognized under the Components Program of Underwriters Laboratories Inc.®**
- **Neutral cure formulation will not corrode copper, brass or silver**
- **Cures to any thickness without heat and in confinement**
- **No shrinkage**

CSL520 Intended Uses

CSL520 can be used as a durable, general purpose encapsulant in a wide range of electrical and electronic applications.

Various combinations of base and catalyst allow a wide range of working times and cure rates that satisfy a wide range of potting and encapsulating needs.

CSL520 Typical Properties‡

Cure System	Two part RTV
Flowability	Pourable Liquid
Cure Time at Standard Conditions[1] [hours]	Dependent on catalyst loading
Tensile Strength[2] ASTM D412 [psi]	350
Hardness[2] ASTM D2240 [points]	45 Shore A
Elongation at Break[2] ASTM D412	150%
Dielectric Strength[2] ASTM D149 [V/mil]	721.6 (284.1 kV/cm)
Volume Resisitivity[2] ASTM D257 [ohm.cm]	$>1.5 \times 10^{12}$

‡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 Standard Conditions are 25˚C (77˚F) and 50% relative humidity
2 Cured for 7 days at Standard Conditions[1]

CSL520 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.

CSL520 is available in white.

Custom colors may be available upon request.

Packaging

CSL520 is available in a kit; the base is available in 3.8L (1 US gallon) cans, 19L (5 US gallon) pails and 189L (50 US gallon) drums.

Shelf Life and Storage

CSL520 and Catalyst A has a shelf life of twelve 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).

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