# CSL557/CSL558/CSL559 Flame Retardant Silicone Sealant

## Benefits

- Flame retardant and unaffected by extreme temperatures
- Resists moisture, vibration, mechanical and thermal shock
- Non-corrosive

csl silicones inc.

www.cslsilicones.com

## Flame Retardant Sealants

Silicone sealants can be used in a variety of electrical and electronic, and industrial applications.

General sealing provides protection from moisture, contaminants, chemicals, as well as mechanical and thermal shock.

Flame retardant sealants reduce flammability and delay combustion. They are particularly effective for electronic, appliance, transportation and aeronautical applications where resistance to burning is a requirement.

## Why do silicones excel in high heat electronics applications?

Silicone elastomers can be formulated to meet many of the physical properties required of high sealants; silicone sealants:

- remain permanently flexible in extreme conditions
- have excellent thermal stability
- can be flame retardant and remain unaffected by a direct flame application
- are non-corrosive and have low toxicity
- possess enhanced chemical and oil resistance
- are resistant to humidity, moisture and contaminants
- absorb mechanical and thermal shock and vibration
- have excellent electrical properties
- resist ultra-violet rays, ozone and weathering
- useful in a variety of application methods

## CSL557 (Grey)/CSL558 (Black)/CSL559 (White)

## 100% Silicone Flame Retardant Sealant

Is a one-part, moisture curing, room-temperature vulcanizing 100% silicone sealant of high strength, adhesion and durometer and exhibits excellent scratch resistance and durability.

Has UL®94 V-0 rating.

Does not generate acetic acid or other corrosive by-products during cure, making it ideal for use in corrosion-sensitive electronic equipment with no adverse effects.

Has a wide heat stability range from -40˚C to 250˚C (-40˚F to 482˚F).

Has excellent resistance to weathering including ozone, ultraviolet radiation and airborne chemicals.

Provides excellent resistance to vibration and shock and severe weathering conditions.

... Product Characteristics

# CSL557/CSL558/CSL559 Flame Retardant Silicone Sealant

## Typical Applications

- Solar panels
- Electronic, appliance, transportation, and aeronautical applications where resistance to burning is a requirement

## Features

- **Neutral cure formulation**
- **Superior flame retardancy**
- **UL® 94-V0 rating**
- **Adheres to most substrates without primer**
- **Excellent electrical insulation properties**
- **High strength and durability**
- **Scratch resistant**


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## Intended Uses

CSL557 (Grey)/CSL558 (Black)/ CSL559 (White) can be used in electronic, appliance, transportation and in industries where resistance to burning is a significant design requirement. The non-corrosive curing system makes it ideally suited for protecting, sealing and insulating corrosion sensitive electrical and electronic materials.

## Typical Properties‡

| Cure System | One part RTV/Oxime |
|---|---|
| Extrusion Rate[1] [g/min] | 100 |
| Cure Time at Standard Conditions[2] [hours] | 24 |
| Tensile Strength[3] ASTM D412 [psi] | 500 |
| Hardness[3] ASTM D2240 [points] | 69 Shore A |
| Elongation at Break[3] ASTM D412 | 170% |
| Tear Resistance[3] (ASTM D624, Die B) [ppi] | 50 |
| Dielectric Strength[3] ASTM D149 [V/mil] | 802.13 (315.8 kV/cm) |
| Volume Resisitivity[3] ASTM D257 [ohm.cm] | $>1.2 \times 10^{12}$ |

‡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 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 Conditions[2]

## Color Availability

### CSL557 (Grey)

### CSL558 (Black)

### CSL559 (White)

### Packaging

CSL557/CSL558/CSL559 are available in in 300mL (10.2 fl. oz.) cartridges, 19L (5 US gallon) pails and 189L (50 US gallon) drums.

### Shelf Life and Storage

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).