

CSL-559 Technical Data Sheet

Flame Retardant Silicone Sealant/Adhesive

1. PRODUCT NAME

CSL-559 Flame Retardant Silicone Sealant/ Adhesive

2. FEATURES

- Neutral cure formulation
- Superior flame retardancy
- UL® 94-V0 rating
- Adheres to most substrates without primer
- Excellent electrical insulation properties

3. PRODUCT DESCRIPTION

CSL-559 is a one-part moisture cure, RTV (room temperature vulcanizing) silicone/ adhesive which cures to form a tough, permanently flexible rubber. The non-corrosive curing systems makes it ideally suited for protecting, sealing and insulating corrosion sensitive electrical and electronic materials.

CSL-559 has excellent resistance to weathering including ozone, ultraviolet radiation and airborne chemicals. After cure, the heat stability range is from -40°C to 260° C (-40°F to 500°F) and the sealant/adhesive

can be applied to surfaces from -18°C to 50° C (0°F to 120°F).

CSL-559 can be used in electronic, appliance, transportation, and in other industries where resistance to burning is a significant design requirement.

4. INSTALLATION

CSL-559 is ready to use and requires no mixing or additives. Curing begins as soon as the sealant is exposed to air. At conditions of 25°C (77°F) and 50% relative humidity, a bead of sealant 3 mm (1/8") will skin over in 7 minutes and fully cure in 24 hours, attaining full physical properties in 7 days. Higher humidity accelerates cure. Cure time will also vary with the degree of confinement. Tooling, if necessary, should be done before skin-over takes place.

5. COLORS

CSL-559 is available in white only.

Typical Properties

These values are not intended for use in preparing specifications

Uncured	
Type	100% silicone, one-part RTV
Appearance	Smooth, white paste
Specific Gravity	1.50
Slump/Sag	Nil
Extrusion Rate (3.2mm (1/8") orifice, 90psi)	100 g/min.
Application Temperature Range	-18°C to 50°C (0°F to 120°F)
Cure System	Neutral, Moisture Cure
Skin-Over Time at Standard Conditions*	5 - 7 min.
Cure Time at Standard Conditions*	24 hr.
Cured	
At Standard Conditions* for 7 Days	
Durometer Hardness (ASTM D2240, Shore A)	69 points
Tensile Strength (ASTM D412)	35 kg/cm ² (500 psi)
Elongation at Break (ASTM D412)	170%
Tear Resistance (ASTM D624, Die B)	8.8 kN/m (50 ppi)
Thermal Expansion Coefficient (0°C to 100°C / 32°F to 212°F)	9.3 x 10 ⁻⁴ cm/°C
Useable Temperature Range	-40°C to 260°C (-40°F to 500°F)
Dielectric Strength (ASTM D149)	550 V/mil (217kV/cm)
Volume Resistivity (ASTM D257)	1.5 x 10 ¹⁵ ohm.cm
Dissipation Factor, 100 Hz to 100 kHz (ASTM D150)	0.0015
Dielectric Constant, 100 Hz to 100 kHz (ASTM D150)	2.80

*Standard Conditions are 25°C (77°F) and 50% relative humidity

6. PACKAGING

CSL-559 is available in 300 ml (10.2 fl. oz.) caulking cartridges, 19L (5 US gallon) pails and 189L (50 US gallon) drums.

7. STORAGE

CSL-559 when stored in original unopened container at or below 32°C (90°F) has a one year shelf life from the date of manufacture. Most products however, will last longer if stored in cool dry conditions.

8. SAFETY PRECAUTIONS

CSL-559 uses a neutral cure system, so no acetic acid or objectionable by-products are evolved during cure. Adequate ventilation should be provided with extensive use of this sealant. On direct contact, uncured sealant may irritate eyes. Flush well with water and call a physician. Avoid prolonged contact with skin. See Material Safety Data Sheet available on this product. **KEEP OUT OF REACH OF CHILDREN.**

9. WARRANTY

CSL Silicones Inc. warrants that its products will meet its specifications. CSL shall in no event be liable for incidental or consequential damages. Except as expressly stipulated, CSL's liability, expressed or implied, is limited to the stated selling price of any defective goods.

Data is subject to change without notice and it is therefore recommended that this information not be used for specification writing. For additional information on specific applications, contact the manufacturer.

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