



Industrial &
Transportation

Silicone Sealant / Adhesives



Professional's Choice

Le choix des professionnels



CSL Industrial & Transportation Silicones

Why choose CSL 100% silicone sealants for Industrial and Transportation applications?

CSL's outstanding portfolio of 100% silicone sealant/adhesives cover a spectrum of industrial and transportation applications, from recreational vehicle roof sealing to high heat form-in-place gasketing.

CSL Industrial and Transportation sealants comprise one-part, moisture cure, RTV (room temperature vulcanizing) silicones formulated for use on a variety of substrates. They offer outstanding resistance to all weathering environments, shock and vibration, salt water, oils, and airborne chemicals.

High temperature products are rated for use from -60°C to 315°C/-76°F to 600°F with intermittent exposure up to 371°C/700 °F (CSL523).

FEATURES OF CSL SILICONES

- Are UL Ecologo certified for reduced environmental impact.
- Stable dielectrically, even at high frequencies and wide temperature ranges.
- Will withstand harsh processing environments and challenging operating conditions. Do not contain heavy metals or unwanted chemicals.
- Perform reliably across extreme temperature ranges and are more resistant to thermal shock than other materials
- Possess excellent flow properties and are faster, easier, and more economical to process.
- Resists weather, UV rays, heat and moisture.
- Are excellent for sound and vibration damping capabilities.



The Professional's Choice Every Time!

CSL PORTFOLIO HIGHLIGHTS

- High Strength Silicone Sealant/Adhesive
- Form-in-Place Gasketing Sealants
- High Temperature Sealants
- Silicone Grease Compound/Lubricants

BENEFITS OF CSL SILICONES

- Easy Application
- Strength
- Performance
- Flexibility
- Versatility





SILICONE GREASE COMPOUND

CSL841

CSL841 is a non-curing, general purpose, dielectric silicone grease compound for indoor or outdoor applications.

Features:

- Water repellent
- Resists oxidation
- Temperature range of -60 °C to 200 °C (-76 °F to 392 °F)
- Non-corrosive and non-toxic

Ideally Suited for:

- **General Purpose:** waterproofing, corrosion protection, mold release, insulating, or as a lubricant for plastic, rubber and metal.
- **Automotive:** battery terminal connections, spark plug ends and caps.
- **Electrical:** provides moisture resistance on electrical wiring, acts as a lubricant for power cable connections and as an oxide inhibitor on electrical contacts.

GASKETING SEALANTS

Multi-Purpose Industrial Silicone Sealant/Adhesive (Non-flow)

CSL502A

CSL502A is an excellent multi-purpose sealant/adhesive for industrial applications. It is non-flow and ideal for applications where high levels of protection, adhesion, elasticity and longevity are desired.

Typical Uses:

Form-in-place gaskets for junction box covers, adhering appliance trim and sealing appliance parts, letters and signs, sealing joints in ductwork, truck trailers, cabs, marine portholes and cabins.

Specifications:

Recognized under the Components Program of Underwriters Laboratories Inc.®

- UL File No. E109726:
 - Plastics - Component (QMFZ2.E109726)
 - Plastics Certified for Canada - Component (QMFZ8.E109726).
- Approved by US Department of Agriculture (USDA) for use in meat and poultry plants (indirect food contact. CSL502A clear, white, and aluminum).
- Approved by Canadian Food Inspection Agency (CFIA) for use in meat and poultry plants (indirect food contact. CSL502A clear, white, and aluminum).

CSL535

CSL535 is a neutral cure, general purpose form-in-place gasketing sealant/adhesive used in a wide range of industrial applications. It cures to form a tough, high modulus rubber with long-term flexibility and durability. The non-slump characteristics of CSL535 allow application to vertical or horizontal surface without flowing or sagging.

Typical Uses:

- Form-in-place gaskets in harsh environments such as engine compartments, transmissions, water pumps, rear axles and oil pans.
- Automotive assembly, sealing filters, oil-sumps, radiators, headlamps, sunroofs, ventilation flaps, weather strips, windscreens, electronics and sensors.
- Can also be used for sealing LNG, LPG and NG pipeline flanges and valves.

Specifications:

- Recognized under the Components Program of Underwriters Laboratories Inc.®
- US Department of Agriculture approved for use in meat and poultry plants (indirect food contact).



HIGH STRENGTH SILICONE SEALANT

CSL501

Designed for applications where high tensile strength is a design requirement. CSL501 cures to a strong, silicone rubber that maintains long term durability and flexibility. Excellent adhesion to glass, wood, and belt fabrics.

Typical Uses:

Silicone coating on conveyor belts where silicone release properties are required. Silicone is resistant to many greases, oils and chemicals; withstands temperatures of -60 °C to 200 °C (-76 °F to 392 °F).



SELF LEVELING FORM-IN-PLACE GASKETING SEALANTS

Self-Leveling Industrial & Transportation Silicone Sealant/Adhesive

CSL515

CSL515 is designed as an OEM or aftermarket product for the Recreational Vehicle (RV) industry. The product is also suitable for other vehicular applications or general industry use where a self-leveling sealant/adhesive is required. Effectively fills small spaces and is easy to use and repair. It has a low modulus & high elasticity and it forms a permanently flexible bond or seal.

Typical Uses:

- Bonding automotive trim, headlight assemblies, plastic vent pipes, and fiber optic lighting.
- General sealing and gasketing.

Self-Leveling Industrial Silicone Sealant/Adhesive

CSL536

CSL536 is primarily used in industrial applications where a free-flowing, self-leveling silicone sealant is required. Self-leveling allows substantial savings in labor cost over the use of regular sealants due to the elimination of tooling. Strong, low modulus for long term durability and flexibility.

Typical Uses:

- Suitable for general purpose gasketing in applications such as sealing pipeline flanges and valves.

Low Viscosity Self-leveling Form-in-Place Gasketing Silicone Sealant/Adhesive

CSL537

CSL537 is designed for general industrial use where a self-leveling sealant/adhesive of a lower viscosity is required or in applications where a free-flowing, self-leveling silicone sealant is specified.

Typical Uses:

- General industrial use.

HIGH TEMPERATURE SEALANTS / FORM-IN-PLACE GASKET MAKERS

Hi-Temp Silicone Form-in-Place Gasket Maker (Non-flow)

CSL503(Red) / CSL504(Black)

CSL503/504 is a non-flow industrial gasket maker and sealant/adhesive designed to provide reliable form-in-place gaskets for mechanical assemblies in high temperature environments. It is designed to maintain maximum performance in a continuous temperature environment of up to 315°C (600°F) & intermittent exposure up to 343°C (650°F).

Typical Uses:

- Water pump & compressor gaskets.
- Appliance gaskets.
- Ductwork sealer/adhesive.
- Electrical insulation.
- Air conditioner & humidifier gaskets.
- Fireplace seals.
- High temperature spacers.
- Sealing panels.
- Oven doors.

Self-Leveling Hi-Temp Silicone Form-in-Place Gasket Maker

CSL513

CSL513 is a self leveling industrial purpose gasket maker and sealant/adhesive designed to provide reliable form-in-place gaskets for mechanical assemblies in high temperature environments. It is designed to maintain maximum performance where operating temperatures of 315°C (600°F) are constant, intermittently up to 343°C (650°F).

Typical Uses:

- Replaces almost any cut gasket and can be used to coat pre-cut gaskets to increase reliability.
- Water pump and compressor gaskets.
- Appliance gaskets.
- Conveyor belts.
- Electrical insulation.
- Air conditioner and humidifier gaskets.
- Electric iron gaskets.
- Encapsulation.

Hi-Temp Silicone/Form-in-Place Gasket Maker

CSL533

CSL533 is a neutral cure silicone used in a wide variety of high temperature automotive and industrial applications requiring high adhesion. It replaces almost any cut gasket by making reliable form-in-place gaskets that resist cracking, shrinking caused by thermal cycling. It is specifically formulated to be used where operating temperatures up to 315°C (600°F) are maintained, and up to 343°C (650°F) intermittent exposure.

Typical Uses:

- Automotive applications include: sealing valve covers, axle housings, water and oil pump seals, thermostat housings, timing chain covers, fuel pumps to blocks, and solenoid covers.
- Industrial applications include pump and compressor gaskets, appliance door gaskets, humidifier gaskets, air conditioner gaskets, repairing torn silicone rubber sheets, ductwork gaskets, dust collection components, and wire and cable insulation.

Hi-Temp High Strength Silicone Sealant/Adhesive

CSL523

CSL523 is a neutral cure, form-in-place gasketing silicone for very high temperature applications of up to 315°C (600°F) and **intermittent exposure of extreme temperatures up to 371°C (700°F)**. CSL523 has superior resistance to oils used in mechanical and automotive systems and is particularly effective for applications requiring high strength.

Typical Uses:

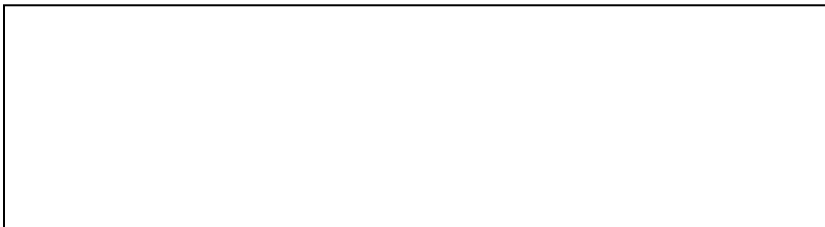
- General high temperature sealing and gasketing.
- Variety of automotive sealing and gasketing.
- Photovoltaics and solar panel assembly.



Product	CSL501	CSL502A	CSL535	CSL515	CSL536	CSL537	CSL503	CSL504	CSL513	CSL533	CSL523	Product	CSL841
	High Strength Sealant	Multi-Purpose Industrial Silicone Sealant/Adhesive		Self Leveling Form-in Place Gasketing Sealants			High Temperature Sealants / Gasket Maker						Non-curing Grease Compound
Cure system	One part RTV/Acetoxy	One part RTV/Acetoxy	One part RTV/Oxime	One part RTV/Oxime			One part RTV/Acetoxy			One part RTV/Oxime		Cure System	Non-cure
Flowability	Non-flow 0.1"/min slump	Non-flow	Non-flow	Flowable / Self-Leveling	Flowable / Self-Leveling	Flowable / Self-Leveling	Non-flow	Non-flow	Flowable / Self-Leveling	Non-flow	Non-flow	Flowability	Non-flow Paste
Specific Gravity	1.16	1.02	1.03	1.11	1.39	1.06	1.16	1.14	1.04	1.15	1.13	Specific Gravity	1.03
Extrusion Rate 3.2mm (1/8") orifice, 90 psi		250 g/min	150 g/min				150 g/min	350 g/min		400 g/min	350 g/min	Unworked Penetration, 1/10mm (ASTMD217)	234
Skin Over Time (min)	8 min	10-20 min	5-10 min	15-30 min	30 min	75 min	10-20 min	10-20 min	15 min	5-10 min	10 min	Worked Penetration, 1/10mm (ASTM D217) 60 strokes / 200 strokes	245 247
Useable Temperature Range	-60°C to 200°C (-76°F to 392°F)	-60°C to 200°C (-76°F to 392°F)		-60°C to 200°C (-76°F to 392°F)			-60°C to 315°C (-76°F to 600°F) intermittent exposure up to 343°C (650°F)				-60°C to 315°C (-76°F to 600°F) intermittent exposure up to 371°C (700°F)	Oil Separation: (ASTM D1742) Bleed after 24 hrs at 100°C Bleed after 24 hrs at 200°C	0.84 %wt 3.14 %wt
Elongation at Break* ASTM D412	360%	350%	400%	600%	350%	200%	350%	300%	300%	400%	400%	Evaporation: (ASTM D972) Bleed after 24 hrs at 100°C Bleed after 24 hrs at 200°C	0.84 %wt 3.14 %wt
Tensile Strength* ASTM D412	721 psi (50.6 kg/cm ²)	200 psi (14 kg/cm ²)	250 psi (17.6 kg/cm ²)	200 psi (14 kg/cm ²)	190 psi (13.4 kg/cm ²)	100 psi (7 kg/cm ²)	300 psi (21.1 kg/cm ²)	290 psi (20.4 kg/cm ²)	150 psi (10.6 kg/cm ²)	270 psi (19 kg/cm ²)	462 psi (32.4 kg/cm ²)	Dielectric Strength (ASTM D149)	96.01 V/mil (3.78 kV/mm)
Hardness* ASTM D2240	45 points Shore A	25 points Shore A	27 points Shore A	15 points Shore A	30 points Shore A	19 points Shore A	32 points Shore A	30 points Shore A	22 points Shore A	29 points Shore A	36 points Shore A	Dissipation Factor, 100 Hz (ASTM D150)	0.4400
Tear Resistance (ASTM D624, Die B)	57 ppi (10 kN/m)	27 ppi (4.7 kN/m)	28 ppi (4.9 kN/m)	28 ppi (4.9 kN/m)	26 ppi (4.6 kN/m)	10 ppi (1.8 kN/m)	35 ppi (6.1 kN/m)	31 ppi (5.4 kN/m)	21 ppi (3.7 kN/m)	33 ppi (5.8 kN/m)	40 ppi (7.3 kN/m)	Volume Resistivity* (ASTM D257)	4.1 x 10 ⁹
Colors	Black, White, Grey	Clear, White, Aluminum, Yellow, Grey, Black	Clear, Grey, Black, White	Bright White	Grey	Grey	Red	Black	Red	Red	Red	Colors	Clear
Shelf Life	12 months	15 months	12 months	12 months	12 months	18 months	18 months	18 months	12 months	12 months	12 months	Shelf Life	60 months



Disclaimer: The information given in this brochure is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this document without first obtaining written confirmation from CSL Silicones Inc. as to the suitability of the product for the intended purpose does so at his/her own risk. The information contained herein has been prepared in good faith to comply with applicable federal and provincial (state) law(s). However, no warranty of any kind is given or implied and CSL Silicones Inc. will not be responsible for any damages, losses or injuries that may result from the use of any information contained herein. While CSL endeavors to ensure all advice it gives about the product (whether in this document or otherwise) is correct, we have no control over either the quality or condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless CSL specifically agrees in writing to do so, it does not accept any liability whatsoever or howsoever arising for the performance of the product, or for any consequential loss or damage arising out of the use of the product. Any warranty, if given or specific Terms & Conditions of Sale are contained in CSL's Terms & Conditions of Sale, a copy of which can be obtained upon request. The information contained herein is liable to modification from time-to-time in light of experience and CSL's policy of continuous product improvement. It is the user's responsibility to check that this document is current prior to using the product. This document must not be used for specification writing.



CSL Silicones Inc.
144 Woodlawn Road West
Guelph, ON N1H 1B5
CANADA
Toll Free: 800 265 2753
Tel: 519 836 9044
cslsilicones.com