

# CSL-502A Technical Data Sheet

## Industrial Silicone Sealant/Adhesive

### 1. PRODUCT NAME

CSL-502A Industrial Silicone Sealant/Adhesive

### 2. FEATURES

- Excellent sealant/adhesive for industrial use
- Provide permanently flexible bond or seal
- Excellent adhesion to glass, metal, porcelain, ceramic, wood, most plastics and many other non-porous substrates

### 3. PRODUCT DESCRIPTION

CSL-502A is a one-part, moisture curing RTV (Room Temperature Vulcanizing) silicone sealant/adhesive designed for industrial use. It cures to a strong, silicone rubber that maintains long term durability and flexibility.

CSL-502A is an excellent sealant and/or adhesive for many industrial applications where a long term, permanently flexible bond or seal is required. Such applications include:

- Formed in-place gaskets for junction box covers

- Adhering appliance trim and sealing appliance parts
- Attaching name plates, letters and signs
- Sealing joints in ductwork
- Sealing truck trailers, cabs, marine portholes and cabins

### 4. INSTALLATION

CSL-502A is ready-to-use and requires no mixing or additives. The cure mechanism begins as soon as the sealant comes in contact with air.

At 25°C (77°F) and 50% relative humidity (RH), the sealant will "skin" within 15 minutes and fully cure in 24 hours (1/8" bead), reaching its maximum adhesion in 7 days. Higher humidity accelerates cure, and curing time is increased with the thickness of the sealant. In applications where partial or total confinement of sealant is prevalent, the time required for proper cure is generally lengthened by the degree of confinement. Tooling, if necessary, should be done before "skinning" takes place. Surfaces should be clean and dry. Apply sealant to prepared

### Typical Properties

These values are not intended for use in preparing specifications

<b>Uncured</b>	
Type	100% silicone, one-part RTV
Appearance	Smooth, non-slump paste
Specific Gravity	1.02
Slump/Sag	Nil
Extrusion Rate (3.2mm (1/8") orifice, 90psi)	200 g/min.
Application Temperature Range	-18°C to 50°C (0°F to 120°F)
Cure System	Acetoxy, Moisture Cure
Skin-Over Time at Standard Conditions*	15 min.
Cure Time at Standard Conditions*	24 hr.
<b>Cured</b>	
At Standard Conditions* for 7 Days	
Durometer Hardness (ASTM D2240, Shore A)	20 points
Tensile Strength (ASTM D412)	12.3 kg/cm <sup>2</sup> (175 psi)
Elongation at Break (ASTM D412)	400%
Tear Resistance (ASTM D624, Die B)	2.9 kN/m (16 ppi)
Thermal Expansion Coefficient (0°C to 100°C / 32°F to 212°F)	9.3 x 10 <sup>-4</sup> cm/°C
Useable Temperature Range	-62°C to 232°C (-80°F to 450°F)
Dielectric Strength (ASTM D149)	550 V/mil (217kV/cm)
Volume Resistivity (ASTM D257)	1.5 x 10 <sup>15</sup> ohm·cm
Dissipation Factor, 100 Hz to 100 kHz (ASTM D150)	0.0015
Dissipation Constant, 100 Hz to 100 kHz (ASTM D150)	2.80

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

A 15-30 mil glue line gives best adhesion. For sealing, apply CSL-502A into the joint so that full contact is made between sealant and surface. Priming is normally not required for applications to non-porous surfaces. Applying a small trial bead and allowing 7 days for maximum adhesion to occur can easily test unprimed adhesion. If primer is required consult CSL-944 product sheet or contact manufacturer.

#### **5. COLORS**

CSL-502A standard colors are clear, white, black and aluminum.

#### **6. PACKAGING**

CSL-502A is available in 300ml (10.2 fl oz) caulking cartridges, 19L (5 US gallon) pails and 189L (50 US gallon) drums.

#### **7. STORAGE**

CSL-502A when stored in original unopened container at or below 32°C (90°F) has a shelf life of 12 months from date of shipment.

#### **8. SAFETY PRECAUTIONS**

CSL-502A releases small amounts of acetic acid during cure. Adequate ventilation should be provided with the extensive use of this sealant. On direct contact, uncured sealant may irritate eyes. Flush well with water and call a physician. See Material Safety Data Sheet available on this product.

#### **9. USDA STATUS**

CSL-502A clear, white and aluminum are authorized by the US Department of Agriculture for use in meat and poultry plants.

#### **10. 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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