

CSL-506 Technical Data Sheet

Self-Leveling Electronic Silicone Sealant/Adhesive

1. PRODUCT NAME

CSL-506 Self-Leveling Electronic Silicone Sealant/Adhesive

2. FEATURES

- Recognized under the Components Program of Underwriters Laboratories Inc.®
- Neutral cure formulation
- Will not corrode copper, brass or silver
- Effectively fills small spaces

3. PRODUCT DESCRIPTION

CSL-506 is a one-part, RTV (Room Temperature Vulcanizing) Electronic Grade Self-leveling Silicone Sealant/Adhesive. No acetic acid or other corrosive by-products are generated during its cure. CSL-506 can be used in corrosion-sensitive electronic equipment with no adverse effect.

CSL-506 is primarily used in applications where a flowable, self-leveling silicone sealant/adhesive is required to fill small spaces. Applications include potting electrical terminals and sealing electronic devices. Since CSL-506 is a 100% silicone sealant/

adhesive, it resists weathering, moisture, vibration, ozone, ultra-violet rays and temperature extremes. It remains flexible from -62°C to 232°C (-80°F to 450°F).

4. INSTALLATION

CSL-506 is ready-to-use and requires no mixing or additives. The cure mechanism begins as soon as the sealant comes in contact with air. Uncured sealant will flow until a cured skin is formed

At 25°C (77°F) and 50% relative humidity (RH), the sealant will “skin” within 30 minutes and fully cure in 24 hours. Higher humidity accelerates cure. Since no undesirable odors are released during cure, CSL-506 is ideal where applications must be done under confined conditions. Adequate ventilation should be provided with extensive use of this product. 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.

Typical Properties

These values are not intended for use in preparing specifications

Uncured	
Type	100% silicone, one-part RTV
Appearance	Smooth, thick liquid
Specific Gravity	1.02 - 1.04
Slump/Sag	Flowable
Extrusion Rate (3.2mm (1/8") orifice, 90psi)	50 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*	30 min.
Cure Time at Standard Conditions*	24 hr.
Cured	
At Standard Conditions* for 7 Days	
Durometer Hardness (ASTM D2240, Shore A)	18 points
Tensile Strength (ASTM D412)	11 kg/cm ² (150 psi)
Elongation at Break (ASTM D412)	400%
Tear Resistance (ASTM D624, Die B)	2.5 kN/m (14 ppi)
Thermal Expansion Coefficient (0°C to 100°C / 32°F to 212°F)	9.0 x 10 ⁻⁴ cm/°C
Useable Temperature Range	-62°C to 232°C (-80°F to 450°F)
Dielectric Strength (ASTM D149)	450 V/mil (177kV/cm)
Volume Resistivity (ASTM D257)	2.2 x 10 ¹⁵ ohm·cm
Dissipation Factor, 100 Hz to 100 kHz (ASTM D150)	0.0008
Dielectric Constant, 100 Hz to 100 kHz (ASTM D150)	2.71

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

All surfaces should be clean and dry. It is recommended that bonding surfaces be wiped with a solvent such as naphtha. Do not use oil-containing solvents such as Varsol. Allow surface to dry thoroughly before applying sealant. Priming is normally not required for applications to most substrates. Applying a small trial flow and allowing 7 days for maximum adhesion to occur can readily test unprimed adhesion.

5. COLORS

CSL-506 standard colors are clear and white. Special colors are available upon request.

6. PACKAGING

CSL-506 is available in 300ml (10.2 fl oz) caulking cartridges and 19L (5 US gallon) pails.

7. STORAGE

CSL-506 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-506 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. UL® CLASSIFICATION

CSL-506 is recognized under the Components Program of Underwriters Laboratories Inc.®

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.

Head Office

144 Woodlawn Rd. W., Guelph, ON, Canada, N1H 1B5
Tel: 519-836-9044 Fax: 519-836-9069

Toronto Office

365 Evans Ave., Suite 304, Toronto, ON, Canada, M8Z 1B6
Tel: 416-255-1189 Fax: 416-255-1180
www.csilsilicones.com

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CSL Silicones Inc.
Guelph, ON, Canada
N1H 1B5

Contact CSL Silicones Inc. Head Office for the distributor nearest you.