



TYPICAL USES

- Horizontal joints in concrete
- Extreme joint movement
- Concrete, steel, most construction substrates
- Suitable for United States Department of Transportation (DOT) applications

PRODUCT DESCRIPTION

CSL 316 is a high performance self-leveling one part, moisture cure, room-temperature vulcanizing (RTV), 100% silicone that cures to a low durometer.

CSL 316 has ultra-high elongation and remains very durable. It has good flexibility and a low modulus, so it will maintain its integrity on joints with movement.

CSL 316 exhibits excellent unprimed adhesion to concrete, steel and most other construction substrates provided they are clean, dry and free of dust and frost.

CSL 316 is unaffected by sunlight (ultra-violet rays), ozone, temperature extremes, rain and snow. It has a long service life, under normal conditions it will maintain its physical properties between -60°C to 200°C (-76°F to 392°F).

APPLICABLE STANDARDS

- Complies with ASTM D5893 Type SL.

PRODUCT CHARACTERISTICS AND PRACTICAL INFORMATION

Type	100% silicone, one-part RTV
Appearance	Smooth, thick liquid
Temperature Range‡	
Application Temperature Range	Ambient to 50°C (120°F)
Useable Temperature Range	-60°C a 200°C (-76°F a 392°F)
Drying Time*	
Tooling/Skin-Over Time	22 minutes
Tack Free Time	90 minutes
Cure Time	48 hours
Full Physical Characteristics	7 days

PHYSICAL PROPERTIES

(Typical properties - values not to be used as specifications)

Uncured	
Specific Gravity	1.11
Slump/Sag	Flowable
Cure System	Neutral (Oxime), Moisture Cure
Cured at standard conditions* for 7 days	
DurometerHardness (ASTM D2240, Shore A)	10 points
Tensile Strength (ASTM D412)	220 psi (15.5 kg/cm ²)
Tensile Strength at 150% Elongation (ASTM D412)	100 psi
Elongation at Break (ASTM D412)	1000%
Joint Movement Capability (ASTM C719)	+100% / -50%
Accelerated Weathering (ASTM C793-91)	No degradation

‡Please consult CSL for suitability for application at lower temperatures

*At standard conditions 77oF (25oC) and 50% relative humidity.

COLORS

CSL 316 is primarily available in grey. For special projects, custom color matching is available at an additional charge. Please contact CSL Silicones for assistance. Terms and conditions may apply.

SURFACE PREPARATION & CLEANLINESS

New concrete should be allowed to cure and dry for at least 7 days. All joints must be clean, dry and free of contaminants before the backer rod is installed and **CSL 316** is applied. If a joint is flushed with water, it should be done only in one direction to reduce contamination. After drying, the top inch (25mm) of each face should be sandblasted in a separate pass, with the nozzle held at an angle no more than two inches (50mm) from the face.

Dust and loose particles must be blown out of the joint with oil-free compressed air, moving only in one direction. An oily surface may reduce adhesion. Priming may be required. Applying a small trial bead and allowing 7 days for maximum adhesion to occur can easily test unprimed adhesion. If primer is required, contact the manufacturer.

APPLICATION

Joint Design

In general, it is recommended that the depth of **CSL 316** be equal to one half the joint widths. Ideally, sealant thickness should be between 1/4" (6mm) and 1/2" (12mm) below the surface. The use of a polyurethane or expanded polyethylene foam backer rod prevents undesired three-sided adhesion and maintains correct sealant depth. The backer rod must be a snug fit on both sides of the joint throughout its length.

Joint Dimensions

The backer rod should be installed at the appropriate depth to provide the correct thickness of CSL316 and recess below the surface, as shown in the table below. The sealant should be applied in one continuous movement with the nozzle set to fill the joint from the bottom up to avoid creating air voids. The sealant should be tooled to force it against the joint faces for maximum adhesion and to provide a recess below the surface, shown below. Excess sealant should be scraped up and removed. If joints are properly recessed, the highway may be returned to traffic as soon as installation and cleanup are completed.

Joint Width (mm)	6	10	12	20	25
Backer Rod diameter	10	13	16	25	30
Backer Rod recess below surface	12	12	12	16	24
Sealant Thickness	6	6	6	10	12
Sealant recess below surface	6	6	6	6	12
Est. linear meter/liter	24	16	12	5	3
Joint Width (inches)	1/4	3/8	1/2	3/4	1
Backer Rod diameter	3/8	1/2	3/8	1	1 1/4
Backer Rod recess below surface	1/2	1/2	1/2	3/8	1
Sealant Thickness	1/4	1/4	1/4	3/8	1/2
Sealant recess below surface	1/4	1/4	1/4	1/4	1/2
Est. linear feet/US gallon	275	185	140	60	35

SAFETY PRECAUTIONS

CSL 316 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.

Uncured sealant may irritate eyes on direct contact. Flush well with water and call a physician. Avoid prolonged contact with skin. See the Safety Data Sheet available on this product.

This product is intended for use only by professional applicators in accordance with the advice given in this document, the Safety Data Sheet (SDS) and the container(s), and should not be used without reference to the SDS that CSL Silicones Inc. has provided to its customers. **KEEP OUT OF REACH OF CHILDREN.**

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety & Environmental standards & regulations.

If in doubt regarding the suitability of use of this product, consult CSL Silicones Inc. for further advice.



STORAGE

CSL 316, when stored in original, unopened container in dry, shaded conditions, away from sources of heat or ignition, and stored below 32°C (90°F), has a shelf life of 12 months from date of manufacture.

PACKAGING

CSL 316 is available in 300 ml (10.2 fl. oz) cartridges, 18.9 L (5 US gallon) pails and 189 L (50 US gallon) drums.

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.



Disclaimer

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