



TYPICAL USES

- Industrial Hi-Temp Form-in-Place gasket maker
- Mechanical assemblies in high temperature environments
- Replaces almost any cut gasket and can be used to coat pre-cut gaskets to increase reliability
- Water pump and compressor gaskets
- Appliance gaskets
- Ductwork sealer/adhesive
- Electrical insulation
- Air conditioner and humidifier gaskets
- Fireplace seals
- High temperature spacers

PRODUCT DESCRIPTION

CSL 503 is a one part, moisture curing, room-temperature vulcanizing (RTV), 100% silicone sealant that cures to a tough rubber gasket and is ideal for high temperature applications.

CSL 503 is designed to maintain maximum performance in a continuous temperature environment of up to 315°C (600°F) and intermittent exposure up to 343°C (650°F). The gasket will remain permanently flexible even after 7 day continuous exposure to maximum temperatures.

CSL 503 resists aging, weathering and thermal cycling without hardening, shrinking, or cracking.

PRODUCT CHARACTERISTICS AND PRACTICAL INFORMATION

Type	100% silicone, one-part RTV
Appearance	Smooth, non-slump red paste
Temperature Range†	
Application Temperature Range	Ambient to 50°C (120°F)
Useable Temperature Range	-60°C a 315°C (-76°F a 600°F)
Drying Time*	
Tooling/Skin-Over Time	10-20 minutes
Cure Time	24 hours
Full Physical Characteristics	7 days

PHYSICAL PROPERTIES

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

Uncured	
Specific Gravity	1.16
Slump / Sag	Nil
Extrusion Rate (3.2mm (1.8") orifice, 90psi)	150g/min
Cure System	Acetoxy, Moisture Cure
Cured at standard conditions* for 7 days	
Durometer Hardness (ASTM D2240, Shore A)	32 points
Tensile Strength (ASTM D412)	300 psi (11 kg/cm ²)
Elongation at Break (ASTM D412)	350%
Tear Resistance (ASTM D624, Die B)	35 ppi (6.1 kN/m)
Shrink Factor	Nil

†Please consult CSL for suitability for application at lower temperatures

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

COLORS

CSL 503 is available in Red,

For special projects, other colors are available using custom color matching at an additional charge. Please contact CSL Silicones for assistance. Terms and conditions may apply.

SURFACE PREPARATION & CLEANLINESS

All surfaces should be clean and dry, and free of dust, dirt, and grease.

APPLICATION

CSL 503 is ready to use and requires no mixing or additives. The cure mechanism 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 3mm (1/8") will skin over within 10-20 minutes and fully cure in 24 hours. Higher humidity accelerates cure.

For assembly as a form-in-place gasket

1. Remove all previous material from mating surfaces.
2. All surfaces should be clean and dry.
3. Cut nozzle to desired bead size: 1/16" - 1/4" diameter; 1/8" bead is usually sufficient for most applications.
4. Remove cap, puncture tube or cartridge seal and attach extension nozzle.
5. Apply a continuous and even bead of silicone to one surface, first tracing the internal areas of the gasket configuration, then all surrounding bolt holes.
6. Assemble parts immediately while silicone is still wet.
7. Finger tighten flange only until material begins to seep out the sides of the flange.
8. Allow to set for at least two hours and re-torque at least one quarter to one half turn.
9. For best results, allow to cure overnight.

For assembly as a gasket dressing

1. Repeat steps 1 thru 4 as in previous section.
2. Apply a thin film of silicone to one surface to be sealed.
3. Place the pre-cut gasket onto silicone film.
4. Apply a second thin film to pre-cut gasket surface.
5. Remove any excess and assemble parts immediately.

SAFETY PRECAUTIONS

CSL 503 releases small amounts of acetic acid 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 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 503, 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 18 months from date of manufacture.

PACKAGING

CSL 503 is available in 300 ml (10.2 fl. oz) cartridges, 18.9L (5 US gallon) pails and 189L (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

The information given in this sheet 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 Rd. W.
Guelph, ON N1H 1B5
Canada

T +1 519.836.9044
TF + 1 800.265.2753

clsilicones.com

CSL 503 Reviewed 2024-04-03
Internal Use | Publication CSL503P24.04
All trademarks registered. All rights reserved.

