

# 311 Joint Sealant - Self-Leveling Silicone Sealant

**NuFlex**  
SEALANTS

## NEUTRAL CURE SILICONE TECHNICAL DATA SHEET

NuFlex® 311 Self-Leveling (SL) Silicone Sealant is a flowable, one-part, neutral-cure, elastomeric silicone sealant that cures to form a durable, flexible, low modulus seal. The self-leveling property means reduced labor costs since tooling is not required.

### FEATURES & TYPICAL USES:

NuFlex® 311 SL can be used for the following: sealing horizontal expansion and control joints in parking garages, driveways, swimming pool decks, concrete floors and sidewalks.

### SURFACE PREPARATION & APPLICATION:

All surfaces must be dry and frost-free, free of oil, grease, rust, dirt or other contaminants that may inhibit proper adhesion. For porous substrates, such as concrete, wire brushing or air blasting (oil-free) is adequate. Most substrates do not require a primer before application of the NuFlex® 311-SL sealant. It is recommended, however, that test samples of sealant be applied to the surfaces to test and verify adhesion. After the preparatory work is completed, mask where necessary to avoid spillage on to adjoining surfaces. Masking tape should be removed immediately after the sealant application is completed.

**Joint Design:** For maximum sealant performance, the following joint design principles should be applied. A backer rod will: (1) ensure adequate backpressure during extrusion of the sealant which will provide good substrate wetting and adhesion (2) eliminate the possibility of three-sided adhesion and (3) control the depth of the sealant. The joint width ("A") and sealant depth ("B") should not be less than 6.4 mm (1/4"). For joint widths in excess of 6.4 mm (1/4"), the depth of the sealant ("B") should be equal to one half of the joint width ("A"). For joint widths in excess of 25.4 mm (1"), the depth of the sealant ("B") should not exceed 12.7 mm (1/2").

### CAUTION:

Use in well ventilated areas and avoid breathing vapors. On contact, uncured sealant irritates eyes. Flush eyes with lukewarm water. Call physician. Avoid skin contact and do not ingest. **Keep out of reach of children.** For complete safety information, consult the Material Safety Data Sheet.

### SHELF-LIFE & STORAGE:

NuFlex® 311 SL Self-Leveling Silicone Sealant shelf life is 12 months from date of shipment from our plant when stored in a clean dry area with temperatures between 5°C and 32°C (40°F to 90°F). For best results, keep the sealant in tightly closed containers when not in use.

### LIMITATION:

NuFlex® 311-SL should not be applied below grade, to surfaces under continuous water immersion, to substrates that bleed oils, plasticizers or solvents (e.g. impregnated wood, oil-based caulks, green or partially vulcanized rubber gaskets or tapes), to surfaces in direct contact with food, and to surfaces that will be painted over. **(Do not use on vertical joints).** In confined cure conditions, NuFlex® neutral cure sealants may: 1) Discolor brass, copper or other sensitive metals. 2) Stress craze polycarbonate.

### MANUFACTURED BY:

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Guelph, ON N1K 1N5



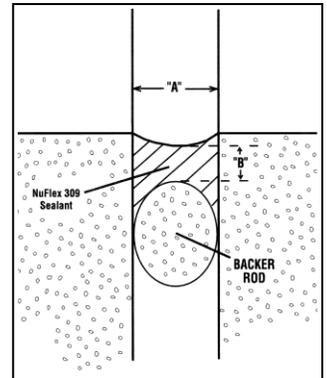
FORM: 311\_TDS.DOC

REV.: 4 DATE: 09/09



### FEATURES:

- 100% Silicone.
- 100% RTV.
- Freeze-thaw stable.
- Self-leveling neutral cure.
- Adheres to many porous substrates.



### AVAILABLE SIZES & COLOUR:

- 300 mL (10.1 fl.oz.) cartridge
- 12 cartridges per case
- 144 cases per skid (300 mL)
- Available in larger sizes\*
- Available colors include: limestone.

\*Special order items may require lead times and minimum order quantities.



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### SPECIFICATIONS:

NuFlex® 311-SL complies with:

- ASTM C 920, Type S, Grade P, Class 25,
- Use NT, M, G, A, O and CAN/CGSB-19, 13-M87, Class MCG - 1 - 25 - A - L

### TYPICAL PROPERTIES:

These values are not intended for use in preparing specifications. Spec Writers; please contact NUCO Inc. before writing specifications if any further information is required.

Description	Specification
<b>As Supplied...</b>	
Type:	One part silicone sealant
Cure Method:	Neutral, moisture cure
Specific Gravity:	1.31
Working Time at 25°C (77°F) and 50% R.H. - in minutes:	15 Minutes
Application Temperature Range:	-29°C to 50°C (-20°F to 122°F)
Full Cure / Adhesion Time at 25°C (77°F) at 50% R.H.:	14 – 21 Days
<b>As Cured...</b>	
100% Modulus (ASTM D 421) MPa (psi):	0.21 (30)
Tensile Strength (ASTM D 412) MPa (psi):	1.2 (175)
Elongation (ASTM D 412):	500 - 600%
Tear Strength (ASTM D624, die 'C'):	4.9 (28)
Hardness (ASTM C 661, Shore A):	12
H-Block Elongation: [12.7 mm wide x 12.7 mm deep (1/2" x 1/2") sealant joint in concrete DIN 52455]	100 – 180%
Joint Movement Capability:	+/- 25%
Application Temperature Range:	-29°C to 50°C (-20°F to 122°F)
Service Temperature Range:	-51°C to 149°C (-60°F to 300°F)

### DISCLOSURE

The information and data contained herein is BASED ON INFORMATION WE BELIEVE TO BE RELIABLE. Please read all statements, recommendations or suggestions herein in conjunction with our CONDITIONS OF SALE which apply to all goods supplied by us. We assume no responsibility for the use of these statements, recommendations or suggestions, nor do we intend them as recommendation for any use which would infringe any patent or copyright.

### 50 YR. DURABILITY STATEMENT:

Material will remain elastic in nature for 50 years. Independent tests indicate that silicone sealant will withstand outdoor weathering for 50 years without significant performance changes. This statement applies to the sealant itself and not to the substrates to which it is bonded to. In the event of elasticity failure, return original container and sales receipt to Nuco Inc., 150 Curtis Drive, Guelph ON N1K 1N5, Canada. NUCO's liability, expressed or implied is limited to the stated selling price of any goods found to be defective.

### WARRANTY INFORMATION:

*NUCO Inc., warrants only that its product will meet its specifications. NUCO shall in no event be liable for incidental or consequential damage. NUCO's liability, expressed or implied is limited to the stated selling price of any goods found to be defective.*

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