

319 Glazing Silicone Sealant

NuFlex
SEALANTS

NEUTRAL CURE SILICONE TECHNICAL DATA SHEET

NuFlex® 319 Glazing Silicone Sealant is a one-part, high modulus, non-corrosive moisture curing 100% silicone sealant. **NuFlex® 319** has superior adhesion to most construction materials without the need for a primer.

NuFlex® 319 cures to form a flexible, watertight bond to glass, plastic, metal, concrete and masonry, factory and field installed metal building systems.

FEATURES & TYPICAL USES:

NuFlex® 319 is a conventional glazing weather sealant, used for sealing windows, doors, metal building flashings, eaves troughs and fittings. It is also used for factory made windows as the primary seal/bedding compound. All joints and glazing pockets should be free of dirt, grease, oil, moisture and old sealants or glazing compounds. It is primerless, non-corrosive and has a non-offensive odor. All season gun-ability from -37°C to 60°C (-38°F to 140°F). Durable – unaffected by sunlight, rain, freeze/thaw conditions, ozone or airborne chemicals and long life – cured sealant remains permanently flexible and will not shrink, crack, dry out or become brittle.

SURFACE PREPARATION & APPLICATION:

Metal, glass and plastic surfaces should be cleaned with an oil-free solvent and should be wiped dry. Soap and water are not acceptable.

Priming: When applied to normal building substrates, **NuFlex® 319** requires no priming.

Masking: After pre-work is completed, areas where sealant is not desired can be masked off with tape. The tape should not come in contact with cleaned areas where sealant is to be applied. Tooling, if required should be done immediately after sealant is applied and in one continuous motion. Masking tape should be removed immediately after tooling is completed. **NuFlex® 319** is not recommended for use below grade or in joints where abrasion such as foot or wheel traffic is possible or on surfaces that are to be painted. The paint film will not adhere to the sealant and may crack or peel. Glass-to-glass butt joints should be tested for appearance prior to production.

Joint Design: Joint depths should not exceed 12.7 mm (1/2") and be no thinner than 3.2 mm (1/8"). A thinner bead of **NuFlex® 319** will allow more joint movement than a thick bead. For perimeter sealing or expansion joint design, the ratio of joint width to depth should be about 2:1. Polyurethane or polyethylene backer rod is recommended for deep joints and polyethylene tape for shallow joints. These materials act as bond breakers and allow the sealant to stretch freely with joint movement. Install back-up material, setting blocks, spacer shims and tapes as specified. Apply **NuFlex® 319** in a continuous bead to fill joint. Tool with enough pressure to push the sealant down into and against the sides of the joint. Tool the sealant applied at the sill on a slight upward angle so that moisture will not pool. Excess sealant should be cleaned from glass, metal and plastic with a commercial solvent such as xylol, toluol or methyl ethyl ketone before sealant cures. Sealant that comes in contact with porous surfaces should be allowed to cure and then be removed with abrasion or other mechanical means.

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. Consult the Material Safety Data Sheet. **Keep out of reach of children.**

LIMITATION:

In confined cure conditions, **NuFlex® 319** may: 1) Discolour brass, copper or other sensitive metals. 2) Stress craze polycarbonate.

MANUFACTURED BY:

NUCO INC.	T:	519.823.4994	TF:	1.800.853.3984
150 Curtis Drive	F:	519.823.1099	E:	sales@nucoinc.com
Guelph, ON N1K 1N5				



FORM: 319_TDS.DOC

REV.: 3 DATE: 05/08



FEATURES:

- 100% Silicone.
- 100% RTV.
- 50 year durability.
- An excellent multi-purpose 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: clear, white, bronze, black & grey.

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



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SPECIFICATIONS:

NuFlex® 319 meets or exceeds the following specs:

- U.S. Fed. Spec. TT-S-001543A (COM-NBS) Class A and TTS-00230CC (COM-NBS) Class A.
- ASTM: C-920, Type S, Grade NS, Class 25 Use NT, M, G, A, O;
- CAN/CGSB-19.13-M87, Class MCG-2-25-A-L

SHELF-LIFE & STORAGE:

Shelf-life is 12 months from date of shipment from our plant when stored in a clean, dry area with temps between 4°C to 32°C (40°F to 90°F).

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
As Supplied...	
Specific Gravity:	1.04
Extrusion Rate (3.2 mm (1/8") orifice at 0.62 MPa (90 psi air pressure):	440 / Minutes
Tack Free Time at 25°C (77°F), 50% Relative Humidity:	25 Minutes
Tooling Time:	4 – 8 Minutes
Cure Time at 25°C (77°F), 50% Relative Humidity:	24 Hours
As Cured – Physical – after 7 days at 25°C (77°F) and 50% Relative Humidity:	
Durometer Hardness - ASTM C661 – Shore A:	30
100% Modulus (ASTM D 421) MPa (psi):	0.52 MPa (75 psi)
Elongation at Break (ASTM D 412), Die:	540%
Tensile Strength (ASTM D 412), Die:	1.9 MPa (275 psi)
Tear Strength (ASTM D 624):	5.25 kN/m (30 ppi)
Peel Adhesion Strength – ASTM C794S:	5.25 kN/m (30 ppi)
Joint Movement Capability:	+/- 25%
Service Temperature Range – ASTM C1299:	-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.

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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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