NuFlex® 302 HIGH TEMPERATURE SILICONE SEALANT

NuFlex® 302 High Temperature Silicone Sealant is a medium modulus one-component acetoxy cure, non-sag caulking material. NuFlex® 302 High Temperature Silicone Sealant cures to form a tough, rubbery solid upon exposure to moisture in the air.

NuFlex® 302 High Temperature is formulated to perform at temperatures ranging from -65° to 260°C (-85° to 500°F) under continuous operating conditions. During intermittent exposure, NuFlex® 302 High Temperature will withstand temperatures as high as 316°C (600°F). It is ideal for a number of sealing and bonding applications.

FEATURES & TYPICAL USES

Features:

- Acetoxy Cure
- Certified by NSF – Standard 51 (red only)
- 100% Silicone
- Water resistant before, during, and after curing
- RTV (Room Temperature Vulcanization)
- Adheres to many substrates
- Excellent extreme temperature performance
- 50 year durability
- Can be applied in sub-zero temperatures
- Withstands up to 316°C (600°F) intermittently

Bonds To:

- Metal
- Laminates
- Glass
- Wood
- Silicone resin and vulcanized silicone rubber
- Ceramic
- Natural & synthetic fibres
- Painted surfaces
- Most plastics

Basic uses include caulking and sealing around:

1. Form-in place gaskets where there is no oil contact
2. Sealing and encapsulating heating elements in appliances
3. Moving oven belts
4. Industrial ovens and bag filters on smoke stacks

Other uses include:

1. General repairs on a variety of substrates
2. Critical bonding, sealing, potting, encapsulating and protective coatings where parts must preform at high temperatures

SURFACE PREPARATION & APPLICATION:

Before Use: Read the label in its entirety.

Surface Preparation:

- Surfaces must be structurally sound, clean, dry, and free from oil, grease, water, dirt, or any other material and membranes that may deter adhesion.
- Rinse all surfaces [excluding plastics] with acetone.
- Rubber surfaces should be roughened with sandpaper, then wiped with acetone.
- Should your gap exceed 6 mm (~1/4"), use a backer rod prior to applying sealant.

Application:

1. Cut nozzle to desired bead size and cut inner seal.
2. Using a caulking gun [unless packaged in a squeeze tube], dispense a bead of sealant to the prepared surfaces in a uniform thickness. 302 High Temperature is supplied ready-to-use.
3. Smooth and tool bead immediately following installation.
4. Allow sealant time to cure in an unconfined area.

NuFlex® SEALANTS

NuFlex® 302 HIGH TEMPERATURE SILICONE SEALANT

SURFACE PREPARATION & APPLICATION (CONT.) :

Clean-up:

1. Uncured NuFlex® 302 silicone sealant cannot be removed with water.
2. Remove the bulk of the uncured sealant with a plastic scraper, being careful not to compress it into cracks or crevices.
3. Use a cloth saturated with mineral spirits, acetone, or denatured alcohol to wipe away any remaining silicone.
4. Clean surface with soap and water if possible.

Cure:

- Cure time is affected by humidity, degree of confinement, and cross-sectional thickness of the sealant.
- Sections up to 3.2 mm (1/8") thick become rubbery solids in 24 hours at 25°C (77°F) at 50% relative humidity.
- In applications where NuFlex® 302 may be partially or totally confined during cure, the time required for proper cure is generally lengthened by the degree of confinement. Every application involving confinement should be thoroughly tested before production procures.
- Curing time increases with the thickness of the sealant. A 12.7 mm (1/2") cross section for example, may require 3 or 4 days for complete cure. However, the cure will have penetrated the outer 3.2 mm (1/8") in about 24 hours.

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...	
Type:	One part silicone sealant
Cure method:	Acetoxy, moisture cure
Specific gravity:	1.01
Extrusion rate (3.2mm (1/8") orifice, 90 psi air pressure) g/minute:	335
Flow rate (sag or slump):	Nil
Application temperature range (°C (°F)):	-29° to 50°C (-20° to 122°F)
Tack free time (25°C (77°F)) and 50% relative humidity:	17 minutes
Cure time 1/8" bead at (25°C (77°F)) and 50% relative humidity:	24 hours
As Cured - Physical - after 7 days at 25°C (77°F) and 50% relative humidity...	
ASTM C 611 - Durometer Hardness Shore A, points	26
ASTM D 412 Die C - Tensile Strength, MPa (psi):	2.4 (350)
ASTM D 412 Die C - Elongation, percent:	600
ASTM D 746 - Brittle Point, °C (°F)	-62 (-80)
ASTM S 2137 A - Volume Coefficient of Thermal Expansion:	0° to100°C 9.3 x 10^4
Thermal Conductivity, Cal/[(sec)(°C)(cm)]:	0.45 x 10^3

LIMITED WARRANTY INFO:

NUCO Inc., warrants only that its product will meet its specifications for a period of 12 months following date of manufacture. NUCO shall in no event be liable for incidental or consequential damage, or improper storage. NUCO's liability, expressed or implied is limited to the stated selling price of any goods found to be defective.

SPECIFICATIONS:

NuFlex® 302 High Temperature is designed to meet the requirements of:

- MIL-A-46106A, amendment 2, type 1
- NuFlex® 302 High-Temp meets USDA regulations for use in federally inspected meat and poultry plants
- 302HT Red is Certified by NSF - Standard 51
- Agriculture Canada approved
- NuFlex® 302 High-Temp is recognized by Underwriters Laboratories for service to 150°C (302°F) where elongation is not essential.
- UL plastics component QMFZ2 file no. E 196754

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 theses statements, recommendations or suggestions, nor do we intend them as recommendation for any use which would infringe any patent or copyright.

RTV

NSF

CERTIFIED TO NSF 51 FOR FOOD CONTACT TO A MAX TEMP OF 260°C (500°F)

Certifié à la NSF 51 pour le contact alimentaire à une temp. max. 260° C / 500° F

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LIMITATIONS:

- Not to be used on most porous substrates such as stone or concrete as the acetic properties of the sealant will form a salt that will break the bond.
- Not to be used where oil contact is a possibility.
- Sealant may not be used to join sensitive natural stones such as marble, granite, or quartz as it may cause staining at the joint edges.
- Sealant can corrode and may not adhere to copper, alloys containing copper, brass, magnesium, zinc, alloys zinc containing, and galvanized metals.

STORAGE AND SHELF LIFE:

- Shelf life is 24 months from the date of manufacture when stored in a clean, dry area.
- Store between 4° to 32°C (40° to 90°F).
- For best results, store the sealant in tightly closed containers when not in use.

CAUTION:

- Use in well ventilated areas and avoid breathing vapours.
- On contact, uncured sealant irritates eyes. Flush eyes with lukewarm water. Call physician.
- Avoid skin contact and DO NOT ingest.
- Sealant releases acetic acid (odour similar to vinegar) during cure.
- Consult Safety Data Sheet.

AVAILABLE SIZES & COLOURS:

SKU	Colour	Size	Format
30289	Red	83 ml	Squeeze Tube
30293	Black	83 ml	Squeeze Tube
30209	Red	300 ml	Cartridge
30213	Black	300 ml	Cartridge

50 YEAR 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. NUCO's liability, expressed or implied is limited to the stated selling price of any goods found to be defective.

MANUFACTURER INFORMATION:

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