

GG-266 Intumescent Silicone Firestop

SELF-SEAL®
FIRESTOPPING PRODUCTS

TECHNICAL DATA SHEET

Self-Seal® GG-266 is a single-component, neutral cure, non-slumping **intumescent silicone caulk** that is designed to seal combustible service penetrations in fire-rated walls and floors. When exposed to temperatures in excess of 150°C (300°F) it will begin to expand. As the combustible penetrating item softens and collapses under fire conditions, the silicone composition will rapidly intumesce to fill the void with a patented char composite that contains expanded graphite.

Self-Seal® GG-266 is ideally suited for “caulk & walk” type applications, particularly where firestop collar systems cannot be accommodated. For up to 2 inch (51 mm) trade size diameter solid or cellular core Polyvinyl Chloride (PVC), solid or cellular core Acrylonitrile Butadiene Styrene (ABS), Flame Retardant Polypropylene (FRPP) and Chlorinated Polyvinyl Chloride (CPVC) pipe penetrations only a minimum 5/16 inch (8 mm) annular space, i.e., a maximum 3 inch (76 mm) cored opening, is needed. Solid core PVC vented and CPVC sprinkler pipe penetrations firestopped with **Self-Seal® GG-266** meet the Canadian building code test requirement for a pressure differential of 50 Pa between the exposed and unexposed sides of concrete, drywall and wood floor-ceiling fire-rated assemblies. **Self-Seal® GG-266** can be used to firestop up to 4 inch (102 mm) PVC, XFR 15-50 PVC, ABS and CPVC pipe penetrations through conical shaped or cored openings in concrete floor slabs avoiding the necessity for firestop collar systems. **Self-Seal® GG-266** is also suitable for AB / PVC flexible foam insulated copper pipe, PEX process and supply tubing penetrations, and metallic and insulated pipe penetrations.

The cured silicone rubber composition exhibits excellent performance stability and provides a pressure tight seal resistant to water, smoke and toxic gases, see **Self-Seal® UL** and **cUL** firestop systems for W (Water tightness) and L (Air Leakage) Ratings. **Self-Seal® GG-266** is also in compliance with the 3rd edition of ANSI / UL1479 “Fire Tests of Through-Penetration Firestops”, for the following environmental exposure tests: Accelerated Aging; High Humidity; Industrial Atmosphere (SO₂ and CO₂) and Combination Wet, Freeze and Dry Cycling.

FEATURES & TYPICAL USES:

Self-Seal® GG-266 seals combustible service penetrations that pass through fire and smoke rated wall and floor separations. See MECHANICAL and ELECTRICAL APPLICATION CHARTS for details.

SURFACE PREPARATION & APPLICATION:

- All substrates must be clean and sound; free of oil, frost, grease, dust, and other foreign materials.
- Recess backing material from the surface of the wall or floor to accommodate the specified thickness of **Self-Seal® GG-266** and then fill the annular space with the caulk. See APPLICATION GUIDELINES for further details.

Self-Seal® GG-266 is only recommended for use in firestop systems that are listed in either the UL Fire Resistance Directory Vol. 2, the UL Directory of Products Certified for Canada, the ULC List of Equipment and Materials - Firestop Systems and Components, or the Warnock Hersey Directory of Listed Products.

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: 266_TDS.DOC

REV.: 4 DATE: 05/08

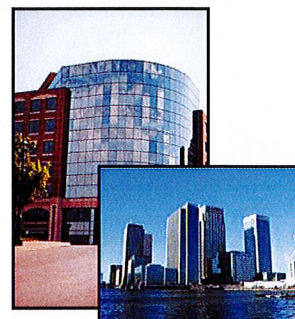


FEATURES:

- 100% Intumescent Silicone.
- “Caulk & Walk” system.
- Protects your wall & floor openings.
- Water resistant before, during, and after curing.
- Expands to close penetrations & stop transfer.
- Tested at positive pressure to simulate the pressure differentials that can occur in a fire situation.

AVAILABLE SIZES & COLOUR:

- 300 mL (10.1 fl.oz.) cartridge
- 591.4 mL (20.0 fl.oz.) sausages
- 17 L (4.5 gallon) pail
- 12 cartridges per case
- 12 sausages per case
- 144 cases per skid (300 mL)
- 90 cases per skid (591.4 mL)
- 32 pails per skid (17 L)
- Available colors include: Red.



www.SelfSealFirestops.com

GG-266 Intumescent Silicone Firestop

SELF-SEAL®
FIRESTOPPING PRODUCTS

TECHNICAL DATA SHEET

Page 2 of 2

PRIMING:

Normally **Self-Seal® GG-266** does not require priming for most common building materials. A trial application is recommended before commencement of a project.

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 Material Safety Data Sheet.

SHELF-LIFE & STORAGE:

Shelf-life is 12 months from date of shipment from our plant when stored in clean, dry area with temperature between 10°C to 25°C (50°F to 77°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...	
Type:	One part silicone sealant
Cure Method:	Neutral, moisture cure
Specific Gravity:	1.25
Working Time:	20 – 40 minutes
Application Temperature Range:	-29°C to 50°C (-20°F to 122°F)
As Cured...	
Free Expansion Volume:	< 6 times original volume when heated at 350°C (662°F)
Service Temperature Range:	14°F to 230°F (-10°C to 110°C)
Surface Burning Characteristics (ASTM E-84):	FSI = 0; SD = 27
*These values are for general information and not for specification purposes.	

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.

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: 266_TDS.DOC

REV.: 4 DATE: 05/08

SPECIFICATIONS:

Self-Seal® GG-266 meets:

- ASTM E-814,
- ANSI / UL1479,
- UBC 7-5 and
- CAN/ULC-S115

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.

SELF-SEAL®
FIRESTOPPING PRODUCTS



www.SelfSealFirestops.com

MATERIAL SAFETY DATA SHEET

SECTION 01 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION:

Chemical Name: **SELF SEAL® GG-266 INTUMESCENT FIRESTOP CAULK**

Manufacturer: **NUCO INC.**
150 Curtis Drive
Guelph, Ontario N1K 1N5
Tel: (519)-823-4994
Fax: (519)-823-1099
Infotrac 24 Hour Emergency Tel: (800)-535-5053

Date: **March 25, 2014**

Prepared by: **Technical Services Department**

WHMIS Classification: **D2A, D2B**

Product Use: **Intumescent Silicone Caulk for Firestopping**

SECTION 02 – COMPOSITION / INFORMATION ON INGREDIENTS:

<u>Ingredients</u>	<u>CAS No.</u>	<u>%</u>	<u>LD50(Oral-Rat)</u>	<u>LC50(Inhalation-Rat)</u>
Methyl Tri(methylethylketoxime)silane	22984-54-9	3.0 - 7.0	2,260 mg/kg	> 4.8 mg/L (4 hr)
Amorphous Silica	7631-86-9	1.0 – 5.0	3,160 mg/kg	> 0.139 mg/L (4 hr)
1,3,5-Triazine - 2,4,6,-Triamine	108-78-1	15.0 – 40.0	3,100 mg/kg	Not available
Expandable Flake Graphite	12777-87-6	10.0 – 30.0	Not available	Not available
Quartz	14808-60-7	0.1 – 1.0	Not available	Not available

The ingredients listed above are controlled products as defined in CPR, am. SOR/88-555 or 29 CFR 1910.1200

SECTION 03 – HAZARDS IDENTIFICATION:

ROUTES OF ENTRY INTO THE BODY (ACUTE EFFECTS):

Eyes: Direct contact may cause mild irritation.

Skin: May cause moderate irritation. Repeated skin contact may cause allergic skin reaction.

Inhalation: Irritates respiratory passages very slightly. Vapor overexposure may cause drowsiness and prolonged overexposure may injure blood and liver.

Ingestion: Low ingestion hazard in normal use. Repeated ingestion may injure internally.

WHMIS HAZARD SYMBOL(S):



SECTION 04 - FIRST AID MEASURES:

Eyes: Flush with copious quantities of lukewarm water. Do not attempt to physically remove the solids or gums from the eye. Seek medical attention immediately.

Skin: Remove contaminated clothing. Wash thoroughly with warm water and non-abrasive soap. Seek medical attention if you feel ill or a reaction develops.

Inhalation: Remove to fresh air and provide water. Seek medical attention if you feel ill or a reaction develops.

Ingestion: Get medical attention.

SECTION 05 - FIRE FIGHTING MEASURES:

Flammable Conditions: Avoid direct sources of heat or ignition in uncured state.

Extinguishing Media: Carbon dioxide, dry chemical, water fog or foam. Water can be used to cool fire exposed containers.

Fire Fighting Measures:	Self-contained breathing apparatus and protective clothing should be worn in fighting large fires involving chemicals. Determine the need to evacuate or isolate the area according to your local emergency plan.
Flash Point:	Not applicable
Flammability Limits:	Lower Explosion Limit – not available Upper Explosion Limit – not available
Autoignition Temperature:	Not available
Hazardous Decomposition Products:	Carbon dioxide, carbon monoxide, silicone dioxide, sulfur oxides, nitrogen oxides, formaldehyde, and other potentially toxic fumes.
Sensitivity - Impact:	None
Static:	None

SECTION 06 – ACCIDENTAL RELEASE MEASURES:

Containment / Clean Up:	Restrict access to the area of the spill. Provide ventilation, NIOSH / MSHA approved respirator and protective clothing. Scrape up caulk and place in container for disposal. Clean area as appropriate since silicone materials can represent a slip hazard. Cleaning may require steam or detergents. Dispose of saturated absorbent or cleaning materials appropriately, since spontaneous heating may occur. Local, state, provincial, federal laws and regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup.
-------------------------	--

SECTION 07 – HANDLING AND STORAGE:

Handling and Storage:	Store in an adequately ventilated area under dry conditions between 50°F (10°C) to 77°F (25°C) and keep container tightly sealed when not in use.
-----------------------	---

SECTION 08 – EXPOSURE CONTROL / PERSONAL PROTECTION:

Component Exposure Limits:	<p><u>Methyl Tri(methylethylketoxime)silane (CAS# 22984-54-9)</u> forms Methyl Ethyl Ketoxime (CAS# 96-29-7) upon contact with atmospheric moisture. Provide adequate ventilation to control exposures within the following exposure guidelines: Vendor Guide TWA: 3 ppm, STEL: 10 ppm; AIHA WEEL TWA: 10 ppm.</p> <p><u>Amorphous Silica (CAS# 7631-86-9)</u>: Although the silica is encapsulated by the silicone caulk observe the particulate limits. OSHA PEL: TWA 80 mg/m³ / SiO₂. NIOSH REL: TWA 6 mg/m³.</p> <p><u>1,3,5-Triazine – 2,4,6,-Triamine (CAS# 108-78-1)</u>: Although the amine is encapsulated by the silicone caulk observe the particulate limits. AIHA WEEL: 10 mg/m³ inhalable fraction, 5 mg/m³ respirable fraction.</p> <p><u>Expandable Flake Graphite (CAS# 12777-87-6)</u>: Although the graphite is encapsulated by the silicone caulk observe the particulate limits. OSHA PEL: 2.5 mg/m³ respirable fraction. ACGIH TLV: 2 mg/m³ respirable particulate.</p> <p><u>Quartz (CAS# 14808-60-7)</u>: Although the quartz is a naturally occurring component of the graphite and is encapsulated by the silicone caulk observe the particulate limits. OSHA PEL: TWA 0.3 mg/m³ total dust, 0.1 mg/m³ respirable fraction. ACGIH TLV: TWA 0.1 mg/m³ respirable fraction.</p>
Respiratory:	Wear an organic vapor NIOSH / MSHA approved respirator.
Ventilation:	In indoor applications, passive ventilation (opening of doors and windows) is recommended. Local exhaust as necessary to keep exposure levels within guidelines.
Personal Protective Equipment:	Safety glasses with side-protection, impermeable gloves (e.g., neoprene, nitrile, silver shield®), coveralls or apron are important in preventing contamination of eyes, skin and clothing. Wash thoroughly after handling.

SECTION 09 – PHYSICAL AND CHEMICAL PROPERTIES:

Physical State:	Red paste with black particles
Odor and Appearance:	Thixotropic caulk
Odor Threshold:	Not available
Specific Gravity:	1.25
Vapor Pressure:	Less than 5 mm Hg
Vapor Density:	Greater than 1

Evaporation Rate: Not available
Boiling Point: Not applicable
Freezing Point: Not applicable
Ph: Not available
Coeff. Oil/Water Distribution: Not available

SECTION 10 – STABILITY AND REACTIVITY:

Chemical Stability: Stable but will begin to intumesce above 300°F (150°C)
Incompatible Materials: Strong oxidizing agents or electrophiles (e.g. ferric chloride). Concentrated acids or bases can degrade the silicone polymer.
Reactive Conditions: High temperature, moisture and incompatible materials.
Hazardous Polymerization: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION:

Effects of overexposure: The curing vapor, Methyl Ethyl Ketoxime (CAS# 96-29-7), may cause drowsiness, injure blood, liver and may irritate or harm nose, throat, lungs and eyes. Direct contact with eyes will irritate. Direct contact with skin may irritate. Although quartz (CAS# 14808-60-7) is a naturally occurring component of the graphite (CAS# 12777-87-6) and is encapsulated by the silicone caulk, prolonged overexposure to quartz dust causes fibrotic lung disease (silicosis) and potentially lung cancer.
Sensitization: Allergic skin sensitization possible through repeated direct contact with the ketoxime in the uncured caulk.
Carcinogenicity: Male rodents exposed to Methyl Ethyl Ketoxime (CAS# 96-29-7) vapor throughout their lifetime developed liver carcinomas. These carcinomas were statistically increased at a concentration of 374 ppm. Quartz (CAS# 14808-60-7): IARC Group 1 – Carcinogenic to Humans; NTP – Reasonably Anticipated to be a Human Carcinogen; ACGIH A2 – Suspected Human Carcinogen.
Reproductive Toxicity: Methyl Tri(methylethylketoxime)silane (CAS# 22984-54-9) is not considered a reproductive or developmental toxin based on studies on rats.
Teratogenicity: Methyl Tri(methylethylketoxime)silane (CAS# 22984-54-9) did not show teratogenic effects in animal experiments, even at maternally toxic concentrations.
Mutagenicity: Methyl Tri(methylethylketoxime)silane (CAS# 22984-54-9) is not considered mutagenic or genotoxic based on in vivo and in vitro studies.
Synergistic Products: No known applicable information.

SECTION 12 – ECOLOGICAL INFORMATION:

Air: Complete information is not yet available.
Water: The 1,3,5-Triazine - 2,4,6,-Triamine (CAS# 108-78-1) is slightly soluble in water, inherently biodegradable with low toxicity to aquatic life (e.g., 96 h LC50 (for fish): > 3,000 mg/L, 48 h EC50 (for Daphnia): > 2,000 mg/L).
Soil: Complete information is not yet available.

SECTION 13 – DISPOSAL CONSIDERATIONS:

Waste Disposal: Dispose in accordance with Federal, State / Provincial and local regulations.

SECTION 14 - TRANSPORT INFORMATION:

Shipping Information: Not subject to DOT, TDG, IMDG Code or IATA Regulations.

SECTION 15 - REGULATORY INFORMATION:

TSCA Inventory Status: Chemical components listed on TSCA inventory except as exempted.
NFPA Profile: Health 2, Flammability 1, Reactivity 0
SARA TITLE III Chemical Listings: Section 302 Extremely Hazardous Substances (40 CFR 355): None
Section 304 CERCLA Hazardous Substances (40 CFR 302): None
Section 311/312 Hazard Class (40 CFR 370): Acute: Yes; Chronic: Yes; Fire: No; Pressure: No; Reactive: No
Section 313 Toxic Chemicals (40 CFR 372): The nitric and sulfuric acids encapsulated within the graphite matrix do not pose a hazard during

normal use but are subject to the reporting requirements of Section 313 of Title III (40 CFR Part 372): 2.9% nitric acid (CAS# 7697-37-2) and 4.75% sulfuric acid (CAS# 7664-93-9).

State Substance List: This product contains a listed substance(s) that appears on one or more of the Substance Lists for Pennsylvania, Massachusetts and New Jersey: amorphous silica (CAS# 7631-86-9); 1,3,5-triazine-2,4,6-triamine (CAS#108-78-1); graphite (CAS# 7782-42-5); methyl tri(methylethylketoxime)silane (CAS# 22984-54-9); dimethylsiloxane, hydroxy terminated (CAS# 70131-67-8); dimethylsiloxane, trimethylsiloxy terminated (CAS# 63148-62-9); and quartz (CAS# 14808-60-7).

California Proposition 65 List: Strong inorganic acid mists containing sulfuric acid (not released under normal conditions of use).

Regulatory Volatile Organic Content: 25 grams per liter, <3% by weight (Chemically Curing Sealants and Caulks – CARB Method 310: VOC less water, less exempt compounds and LVP-VOCs).

Domestic Substance List: Chemical components listed on DSL except as exempted.

SECTION 16 – OTHER INFORMATION:

The information herein is given in good faith, but no warranty, express or implied, is made. Product users should make independent judgements of the suitability of this information to ensure proper use and to protect the health and safety of employees.

Form: MSDSSELFSEALGG-266 Rev.: 9 Date: 03/14