

# PRODUCT DATA SHEET

## Fire and Smoke Stop Sealant

# 4100NS

### 1. Product Name

**4100NS** Fire & Smoke Stop Sealant

### 2. Manufacturer

PFP Partners 1412 Derwent Way  
Delta, BC Canada V3M 6H9

(see technical services for phone #'s)

### 3. Compliance/Approvals

Underwriters Laboratories (UL) and Intertek Testing Services NA Ltd. (Warnock Hersey) are fire endurance testing agencies accredited by ICBO, BOCA, and SBCCI (National Evaluation Services) in the United States. In Canada, ITS Warnock Hersey & cUL are accredited by the Building Standards Council of Canada (SCC). Certifications provided by Intertek Testing Services Ltd. (WH) have equal status with those provided by Underwriters Laboratories (UL) and Underwriters Laboratories Canada (ULC). **4100NS** is Factory Mutual (FM) Approved and has been fully tested and meets or exceeds the requirements of: ASTM E-814, ASTM E-119, ASTM E-1399, UL 1479, UL 2079 and ULC S-115-M95.

**4100NS** has also been tested and meets the classifications for less than 25 flame spread and less than 50 smoke development (NFPA Class "A", Building Code Class "1"):

- ASTM E-84

#### Approvals:

- California State Fire Marshal  
4485-1433-100

### 4. Product Description

**4100NS** is a high solids superior performance elastomeric latex caulk. It is used in most common firestop applications from 1, 2, 3 and 4-hour rated assemblies but is predominately used in construction joints where it provides ease of installation and cures to a flexible finish. **4100NS** gives superior adhesion to similar and dissimilar substrates in vertical, horizontal and top-of-wall construction joints. This caulk material will also provide a tight bond when used on most construction materials such as, metallic pipe, conduit, electrical wires and cables (jacketed and

bare), cable trays, plastics, metal ducts, gypsum wallboard, wood and concrete. When properly installed and cured **4100NS** produces a durable and flexible seal that will stop the passage of fire, smoke, fumes and gas in fire rated assemblies. After fully cured it will remain flexible and water resistant.

### 5. Application

**4100NS** must be applied as outlined in the appropriate tested and listed system designs.

#### Features:

- Excellent application characteristics, flows easily, no slump, strong adhesion
- Excellent acoustic properties
- Excellent smoke seal
- Safe and easy to use, easy clean up with plain or soapy water
- Endothermic material, absorbs heat and releases water vapor
- One component system, insulation material not always required
- Adheres to concrete, wood, gypsum wallboard and most service penetration materials
- Penetrations; combustible and non combustible
- Single and multiple penetrations
- Construction joints 500 cycles
- Up to 33% movement capability, extension and compression
- Superior bond and adhesion strength
- Re-enterable and repairable
- Water resistant after fully cured (refer to paragraph 6 & 7)
- Non toxic
- Free of asbestos and PCB
- Low Volatile Organic Contents (VOCs)
- Has no adverse effect on substrate materials
- Paintable after fully cured (water base paint)
- Concrete Grey Color

### 6. Limitations

This material cures naturally through the evaporation of its water content.

Temperatures (Consult Storage and Installation Sections). Exposure to rain, running or standing water before the sealant is cured may cause the installed material to wash out. **This product is not**

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**designed to be a waterproof seal.** It should not be installed where there will be continuous wet conditions or immersed in water continuously. Refer to Water Resistance, Paragraph # 7.

The curing process occurs as its water is released and evaporates into the atmosphere. Slower cure time may be experienced if the installed sealant is in a low temperature, damp or high humidity environment. Any materials used in the firestop system for damming, insulation or support that may not readily allow the passage of air could cause the curing process to take longer than normal. The environment in which the compound is being used should be considered when estimating cure times.

### 7. Physical and Chemical Properties

Type..... Waterborne Resin  
 Color .....Grey  
 Odor .....Mild Latex  
 Solids Content (Wt%).....77± 2%  
 pH (ASTM E-70).....8-9  
 Specific Gravity (ASTM D-1475).....1.40 - 1.50  
 Viscosity (ASTM D-2196).....560,000-744,000 cps  
 Application Temperature.....7°C - 32°C (45°F - 90°F)  
 Drying Time (ASTM E-1640)  
     • Dry to touch @ 6 mils.....20-30 minutes  
     • Cure time.....7-21 days  
       (dependent on thickness and environment)  
 In Service Temperature..... up to 49°C (120°F)  
 Full Cure and Adhesion .....7-21 days  
     (at 25°C and 50% R.H.)  
 Elongation (ASTMD-2370).....1400%  
 Tensile Strength (ASTM D-2370).....26 psi  
 Slump (ASTM D-2202 modified).....Passed  
 Freeze/Thaw (ASTM D-2243).....Excellent  
 Extrudability (ASTM C-731).....Passed  
 Volume Shrinkage (ASTM C-1241).....Passed  
 Flame Spread.....Less than 25  
 Smoke Development.....Less than 50  
 Hardness (ASTM D-2240 Shore A).....22  
 Fungus resistance (ASTM C 1338-00).....Passed  
 Combustion Product Toxicity (ASTM E 800)...Passed  
 STC Sound Transmission Loss (ASTM E 90-99) .....Full Recovery  
 Corrosion (ASTM C 655) (for steel, copper,

aluminum, galvanized steel and stainless steel.....Passed  
 Corrosion Resistance  
 (ASTM B-117) Salt Spray.....Passed  
 Water Resistance  
 (28 day Solubility Loss).....3%

### 8. Installation Instructions

**4100NS** must be installed in compliance with the listed system designs published by third party testing laboratories (UL, ITS Warnock Hersey, Factory Mutual, ICBO). Refer to their respective published Fire Resistance Directories or Websites. **4100NS** does not require mineral wool insulation in many applications. To install properly, remove excessive dust, dirt, debris, grease, oil and standing water. Apply caulking material with standard cartridge or bulk loading application guns or trowel into place with standard trowelling tools. Install the required amount of caulk material into the opening using sufficient pressure to ensure it is in contact with all surfaces, substrates and/or penetrating items. The manufacturer recommends tooling the surface of the installed caulking immediately with a moist putty knife or similar tooling utensil. Tooling the caulk material creates a stronger bond and a smoother finish especially when applied to irregular or porous surfaces. Do not apply this product to mineral wool that is or was wet from exposure to water, standing water, rain or snow. For best results, installation temperatures should be 7°C - 32°C (45° - 90°F). The manufacturer recommends this product be installed by those trained in proper installation procedures (TQ Card) and able to read and understand a firestop system design listing (i.e. UL listing design).

**Caution:** Mineral wool may cause eye, skin or respiratory tract irritation. Avoid contact with eyes, skin or clothing. Recommend using gloves and goggles. Refer to Material Safety Data Sheets published by mineral wool manufacturers.

### 9. Maintenance

No maintenance is required after the firestop sealant is installed and cured. If after installation the firestop sealant is damaged or cut, repairs should be made with the same firestop sealant.

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### 10. Chemical Compatability

**4100NS** is chemically compatible with all types of metal, plastic pipe, plastic jacketed wires and cables listed in the system designs.

### 11. Storage, Handling, Transportation, First Aid

Manufacturer recommends storage temperatures between 4°C - 32°C (40°F - 90°F). **DO NOT ALLOW TO FREEZE.** Keep product stored in a protected covered area in its original sealed containers. Product has a shelf life of one (1) year. Stock rotation program is recommended.

**Transportation** temperatures 7°C - 30°C (45°F - 85°F)

**First Aid:** In case of contact with eyes, flush with water and consult a physician. Skin contact, clean up thoroughly with plain or soapy water. Contact a physician if eye or skin irritation develops or persists. See MSDS for additional information.

### 12. Availability

**4100NS** is available in:

- 10.1 ounce (300ml) plastic cartridge
- 20 ounce (600ml) sausage foil pack
- 29 ounce (850ml) cartridge
- 3.17 gallon (12 liter) plastic pail

### 13. Warranty

PFP Partners will not accept liability for more than product refund. Any claim regarding product defect must be received in writing within 1 year from date of shipment. PFP Partners makes no other Warranty or Guarantee, expressed or implied including warranties of fitness for a particular purpose or merchantability. The seller shall assume no other liability for incidental or consequential damages arising out of the sale or use of this product.

### 14. Technical Services

Complete technical information and product literature is available from PFP Partners and it's authorized resellers or:

Toll Free:.....1-800-810-1788

Facsimile:.....1-604-515-1783

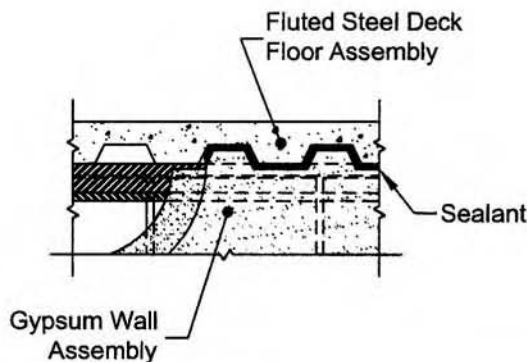
Email address:..... firestop@firestop.com

Website:..... www.firestop.com

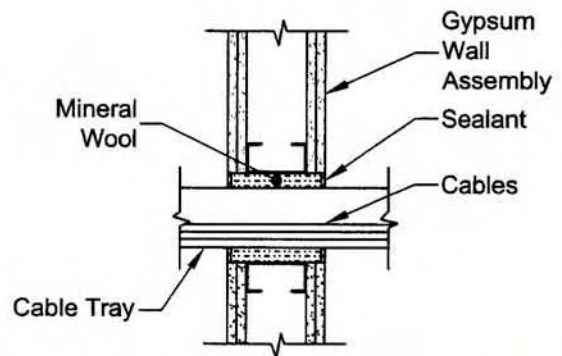
Laboratory services and our in-house test furnaces are available for specialty applications.

## TYPICAL APPLICATIONS

**HW-D-0024**



**W-L 4013**



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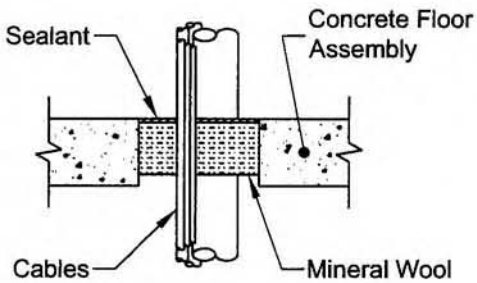


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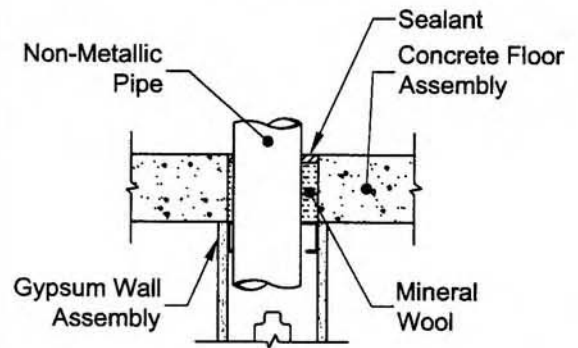
**4100NS**

***TYPICAL APPLICATIONS continued***

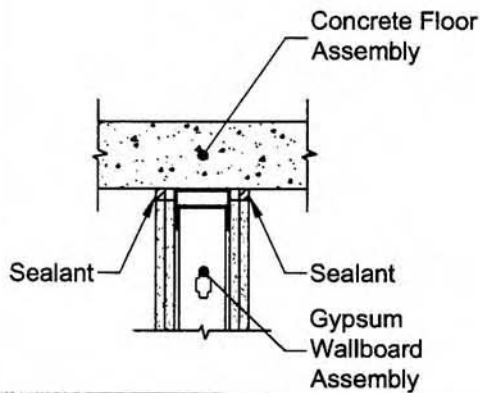
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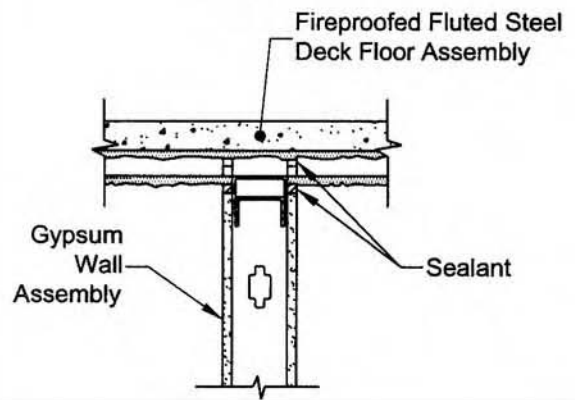
**F-A-2030**



**HW-D-0036**



**PFP/PV 60-01**



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