

4100NS Non-Sag Firestop Caulking

PRODUCT DESCRIPTION

PFP Partners' 4100NS is a one-component non-sag firestop sealant based on our environmentally friendly chemistry. 4100NS is a latex-based product designed and tested predominately for firestopping construction joints.

4100NS is virtually odourless also provides a flexible seal which is non-reactive with most substrates.

4100NS can be used on a variety of construction material substrates.

4100NS is non-hazardous, safe for the environment and does not require special shipping procedures. It does not contain solvents and is VOC compliant. Cleaning up is easy with just soap and water (non-cured state.)

Meets the green building guidelines for adhesives and sealants as specified by both the US and Canada Green Building Council's LEED (Leadership in Energy and Environmental Design) Green Building Rating Systems.

GENERAL APPLICATION AND USES

4100NS has been designed specifically to seal construction joints against the spread of fire, smoke, fumes and toxic gases in 1, 2, 3 & 4 hour rated floor and wall assemblies.

4100NS has been tested in hundreds of firestopping installations by third party testing agencies; Underwriters Laboratories (UL & ULC) and Intertek Testing Services - Warnock Hersey (WHi) and meets the requirements of ASTM E-84, ASTM E-119, ASTM E-814, ASTM E-1399, CAN/ULC S101, CAN/ULC S102, CAN/ULC S115, UL 263, UL 763, UL 1479 & UL 2079.

Refer to UL or WHi respective published Fire Resistance Directories or their websites. PFP Partners recommends that this product be installed by those trained in proper installation procedures (TQ Card) and be able to read and understand a firestop system design listing (i.e. UL and/or WHi listing designs).

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4100NS – Non-Sag Caulking

PACKAGING

- 10 fl. oz. (300 ml) cartridge
- 20 fl. oz. (600 ml) foil sausage pack
- 29 fl. oz. (850 ml) cartridge
- 5 us gal. (18.9 L) pail (tapered)

COLOR

Grey

SPECIAL ORDER COLORS

Blue, Grey, White and Yellow
Minimum quantity orders required

Tested and Classified for use in Fire Rated Assemblies:

- Concrete Floors
- Concrete Walls
- Framed Floors
- Framed Walls

Firestopping Penetration Items:

- Voids
- Electrical, cables, cable trays, busways
- Metallic pipe, conduit and tubing
- Mechanic ducts
- Non-metallic pipe, conduit and tubing
- Grouped penetrations

Firestopping Joints:

- Bottom-of-Wall
- Head-of-Wall
- Floor-to-Floor
- Wall-to-Wall
- Floor-to-Wall

PRODUCT FEATURES

- Water based formulation
- Elastic properties – non-hardening
- Environmental Safe – No harmful components, solvent free and is VOC compliant – LEEDs – California Air Resource Board SCM Districts – Rule 113 – South Coast Air Quality Management Districts (SCAQMD)
- Can be shipped without restriction and is environmentally friendly
- Inert formula will not interact with substrates
- Works on virtually every base material
- Improves STC Values and upgrades sound quality
- Product is stable over several freeze/thaw cycles; however, care should be taken to not freeze the product
- Cured product is mold and mildew resistant
- Easily installed
- Product flows readily, does not slump or sag, easy to tool
- Accepts primer and paint unlike silicone based sealants
- Easy cleanup with water (in wet stage)
- Post-consumer recyclable

Disclaimer: All technical advices, recommendations and services rendered by the seller are gratis. They are based on technical data which the seller believes to be reliable and are intended for use by person having the skills and know how at their own discretion and risk. In no event will the seller be liable for any consequential damages arising out of the use of this product.



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1.800.810.1788 Technical Support
1.800.810.1788 Customer Service

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Passive Fire Protection Partners
1412 Derwent Way Delta, BC V3M 6H9

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TECHNICAL DATA

| | | | | |
|--|---|--------------|---|---|
| Base | Vinyl Acetate Polymers | | Color | Grey |
| Shelf Life | 24 months when product is stored in its original unopened packaging and stored in a cool dry place, 40°F to 90°F (4°C to 32°C). Product and substrates should be warmed to at least 43°F (6°C) prior to installation. | | Odour | Mild Latex |
| Aging Test (ASTM D-1791) | Passed | | VOC (less water) | 0.4 lbs/us. gal (53.9 g/L) |
| Storage Temperature | 40°F to 90°F (4°C to 32°C) | | Solids Content (wt. %) | 75 to 80% |
| Application Temperature | 45°F to 90°F (7°C to 32°C) | | Elasticity | Up to 33% |
| In-Service Temperature | Up to 120°F (49°C) | | Elongation (ASTM D-2370) | 1400% |
| Curing System | One-component – Air cured | | Slump (ASTM D-2202) | Passed |
| Curing Time (ASTM D-1640) | Dry to touch @ 6 mil | 20 to 30 min | Specific Gravity (ASTM D-1475) | 1.40 to 1.50 |
| | Fully cured time | 7 to 12 days | Viscosity (ASTM D-2196) | 560,000 to 744,000 cps |
| | (depending on thickness & environment) | | pH (ASTM E-70) | 8.0 to 9.0 |
| Chemical Compatibility (ASTM D-543) | Passed | | Surface Burning Characteristics (ASTM E-84) | Flame Spread Index <25 Smoke Development Index <50 |
| Corrosion (ASTM B-117) | Passed | | Fungus Resistance (wet) (ASTM D-2574) | Passed |
| Freeze-Thaw (ASTM D-2243) | Passed | | Fungus Resistance (dry) (ASTM D-3273) | Passed |
| Extrudability After Package Aging (Freeze-Thaw Stability) (ASTM C-731) | Passed | | STC – Breached Wall Recovery (ASTM E-90) | 59 Tested in a U411 wall assembly |
| | | | Volume Shrinkage (ASTM C-1241) | Passed |
| | | | Water Resistance (28 day Solubility Loss) | 3% |

MAINTENANCE

The 4100NS does not require maintenance after installation. If, after installation, the firestop sealant is damaged or cut, repairs should be made with the same sealant. Use only materials approved by through-penetration firestop manufacturer as suitable for repair of original seal. Never mix different manufacturer's firestopping materials.

CHEMICAL COMPATIBILITY

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

STORAGE, HANDLING, TRANSPORTATION

Manufacturer recommends storage temperatures between 40°F to 90°F (4°C to 32°C). Keep product stored in a protected covered area in its original containers. Storage in high heat, high humidity conditions may reduce products shelf life. A stock rotation program is recommended. Transportation temperatures 45°F to 85°F (7°C to 30°C) **DO NOT ALLOW TO FREEZE.**

WARRANTY

Passive Fire Protection 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. Passive Fire Protection Partners makes no other warranty or guarantee, express or implied, including warranties or fitness for a particular purpose or merchantability. The seller shall assume on other liability for incidental or consequential damages arising out of the sale or use of this product.

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INSTALLATION GUIDELINES AND SUGGESTED USE

Application

- Method: Caulking gun, bulk loader or trowel in place
Cleaning: Warm water immediately after application and before curing.
Tooling: Tooling creates a stronger bond and a smooth finish. Clean before skin formation.
Caution: Do not apply 4100NS to wet mineral wool. Mineral wool may cause eye, skin or respiratory tract irritation consult mineral wool manufacturer's MSDS.

Installation Preparation

- 4100NS should be applied to surfaces that are dry, clean and free of dust, dirt and grease. Product and substrates should be warmed to at least 45°F (7°C) prior to installation.

Health and Safety

- Hand and eye protection is highly recommended. As with all sealants, consult the MSDS.

First Aid

- Incase of contact with eyes, flush with large amount of water and consult a physician. For skin contact, wash thoroughly with soapy water. Contact a physician if skin irritation develops or persists. Consult the MSDS for additional information.

Chemical Resistance

- Good resistance to water, aliphatic solvents, mineral oils, grease, diluted inorganic acids and alkalis.
Good resistance to mineral oils and grease.

Special Application

- 4100NS should not be installed in submerged conditions.
4100NS may be painted; however, due to the larger number of paints and varnishes available a compatibility test before application is strongly suggested.
4100NS can be applied to a wide variety of substrates. Performance with specific substrates, such as plastics, metals, etc, may differ according to manufacturer; therefore, it is suggested that preliminary compatibility tests be conducted.

LIMITATIONS

This product is not designed to be a waterproof seal. Do not apply if rain is expected within 24 hours, as exposure to snow, rain, running or standing water before the sealant is fully cured may cause the installed material to washout. Not recommended for continuous submersion or use below the waterline. For best results, store and install above 45°F (7°C).

This product is water-based and cures naturally through the evaporation of its water content as a result, slower curing times may occur in low temperature as well as high humidity environments. Also, any materials used in the firestop installation for damming, insulation or support may affect curing times.

Application of this product is not recommended when frost or moisture is present on the surface to be sealed.

ESTIMATING CHARTS

IMPORTANT NOTE: Estimating charts are for estimating only. Please consult applicable third party testing agency's Fire Resistance Directory for specific installation instructions and requirements.

General Joint Estimating – Imperial

Table with 13 columns: Joint Width (inches), Linear Feet / 10 oz. Tube (Sealant Depth 1/4, 1/2, 5/8, 1-1/4), Linear Feet / 29 oz. Tube (Sealant Depth 1/4, 1/2, 5/8, 1-1/4), Linear Feet / Gallon (Sealant Depth 1/4, 1/2, 5/8, 1-1/4). Rows for joint widths 1/4, 1/2, 3/4, 1.

Note: Values Above Are For One Side Only

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General Penetration Estimating – Imperial - Use this chart to calculate the volume of sealant required for each penetration

| Diameter of Opening (Inches) | Nominal Diameter of Pipe (inches) | | | | | | | | | | | | |
|------------------------------|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|
| | 0.50 | 0.75 | 1.00 | 1.50 | 2.00 | 2.50 | 3.00 | 3.50 | 4.00 | 6.00 | 8.00 | 10.00 | 12.00 |
| | Actual Diameter of SCH 40 Pipe (inches) | | | | | | | | | | | | |
| | 0.840 | 1.050 | 1.315 | 1.900 | 2.375 | 2.875 | 3.500 | 4.000 | 4.500 | 6.625 | 8.625 | 10.750 | 12.750 |
| 1.00 | 0.23 | | | | | | | | | | | | |
| 2.00 | 2.59 | 2.28 | 1.78 | 0.31 | | | | | | | | | |
| 3.00 | 6.51 | 6.20 | 5.71 | 4.23 | 2.64 | 0.58 | | | | | | | |
| 4.00 | 12.01 | 11.70 | 11.21 | 9.73 | 8.14 | 6.07 | 2.95 | | | | | | |
| 5.00 | 19.08 | 18.77 | 18.28 | 16.80 | 15.20 | 13.14 | 10.01 | 7.07 | 3.73 | | | | |
| 6.00 | 27.72 | 27.41 | 26.93 | 25.44 | 23.84 | 21.78 | 18.65 | 15.71 | 12.37 | | | | |
| 7.00 | 37.93 | 37.62 | 37.13 | 35.65 | 34.05 | 31.99 | 28.86 | 25.92 | 22.58 | 4.01 | | | |
| 8.00 | 49.71 | 49.40 | 48.91 | 47.43 | 45.84 | 43.77 | 40.64 | 37.70 | 34.36 | 15.79 | | | |
| 10.00 | 77.99 | 77.67 | 77.18 | 75.70 | 74.11 | 72.05 | 68.92 | 65.97 | 62.64 | 44.07 | 20.11 | | |
| 12.00 | 112.54 | 112.23 | 111.74 | 110.26 | 108.67 | 106.61 | 103.48 | 100.53 | 97.19 | 78.63 | 54.67 | 22.33 | |
| 14.00 | 153.38 | 153.07 | 152.58 | 151.10 | 151.10 | 147.45 | 144.32 | 141.37 | 138.03 | 119.47 | 95.51 | 63.18 | 26.26 |

4100NS - Volumes

| Packaging Size | Volume |
|---------------------------------------|---------------------------------------|
| 10 fl. oz. (300 ml) cartridge | 18 cu. in. (300 cm ³) |
| 20 fl. oz. (600 ml) foil sausage pack | 36 cu. in. (600 cm ³) |
| 29 fl. oz. (850 ml) cartridge | 52 cu. in. (850 cm ³) |
| 5 us gal. (18.9 L) pail (tapered) | 1155 cu. in. (18900 cm ³) |

ORDERING INFORMATION

4100NS - Packaging

| Code | Packaging Size | Color | Dispenser | Units per Case | Units per Skid |
|------|---------------------------------------|-------|----------------------|----------------|----------------|
| NS1 | 10 fl. oz. (300 ml) cartridge | Grey | Caulking Gun | 12 | 1680 |
| NS9 | 20 fl. oz. (600 ml) foil sausage pack | Grey | Caulking Gun | 12 | 720 |
| NS2 | 29 fl. oz. (850 ml) cartridge | Grey | Caulking Gun | 12 | 720 |
| NS4 | 5 us gal. (18.9 L) pail (tapered) | Grey | Bulk Loader / Trowel | 1 | 36 |

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